

JACQUELYN PLESS

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CURRENT POSITION & RESEARCH EXPERIENCE

2016 - University of Oxford, Oxford Martin Fellow, Postdoctoral Researcher, Institute for New Economic Thinking, Oxford Martin Programme on Integrating Renewable Energy, Oriel College Associate Member
2015 The Wharton School & Kleinman Center for Energy Policy, University of Pennsylvania, Research Assistant to Arthur van Benthem
2014-15 Colorado School of Mines, Division of Economics & Business, Research Assistant to Harrison Fell

EDUCATION

2012-16 Colorado School of Mines, Ph.D. in Mineral & Energy Economics
Dissertation: *Three Empirical Essays in Energy Economics*
2012-14 Colorado School of Mines, M.S. in Mineral & Energy Economics
2005-09 University of Vermont, Honors College, B.A. in Economics and Political Science

RESEARCH FIELDS

Energy and environmental economics, innovation, public economics, applied econometrics

PUBLICATIONS

“Encouraging Innovation that Protects Environmental Systems: Five Policy Proposals,” (with Cameron Hepburn and David Popp). *Review of Environmental Economics and Policy*. 2018.
“Making your M&A-driven reorg a success” (with Stephen Heidari-Robinson and Suzanne Heywood), [online article] *Harvard Business Review*. Invited—forthcoming.
“Bribes, Bureaucracies, and Blackouts: Towards Understanding How Firm-Level Corrupt Behavior Impacts Electricity Reliability,” (with Harrison Fell). *Resource and Energy Economics*, 2017.
Coverage: “Research Highlights” in *Nature Energy*

WORKING PAPERS

“Are ‘Complementary Policies’ Substitutes? Evidence from Innovation Policy” [JMP]
“Expectation Formation and Disentangling Uncertainty from Salience” (with Eoghan McKenna)
“Pass-Through as a Test for Market Power: An Application to Solar Subsidies” (with Arthur van Benthem), *NBER Working Paper No. 23260* [submitted]
“Steering the Climate: Comment” (with L. Mattauch, C. Hepburn, R. van der Ploeg, N. Stern, and others)
“To Buy or Lease? Business Model Consumer Preferences in the Residential Solar PV Market” [R&R with *The Energy Journal*] (with Harrison Fell and Ben Sigrin)

WORKS-IN-PROGRESS

- “Identifying Collaboration and Product Market Rivalry Effects on Innovation”
“Directed Technological Change: Evidence from Horizon 2020” (with Myra Mohnen and Ralf Martin)
“The Role of Gender in R&D and Innovation” (with Myra Mohnen)
“Assessing the Impact of Public Funding for Clean Energy R&D for Evidence-Based Innovation” (with Cameron Hepburn, John Rhys, and Niall Farrell)
“Is This the End of Conventional Wholesale Electricity Markets?” (with Niall Farrell, Cameron Hepburn, and John Rhys)

PROFESSIONAL EXPERIENCE

- 2017 - Quartz Associates, Head of Analytics
2013-16 National Renewable Energy Laboratory, Joint Institute for Strategic Energy Analysis, Economist
2010-13 National Conference of State Legislatures, Energy Policy Specialist (promoted twice)
2009-10 Pennsylvania House of Representatives, Legislative Assistant
2008 The World Bank, Chief Economist’s Office of the Human Development Network, Intern

PRE-DOCTORAL & INTERDISCIPLINARY PUBLICATIONS

- “Solar photovoltaic self-consumption in the UK residential sector: new estimates from a smart grid demonstration project” (with Eoghan McKenna and Sarah Darby) [accepted in *Energy Policy*]
“Quantifying the value of investing in distributed natural gas and renewable electricity systems as complements: Applications of discounted cash flow and real options analysis with stochastic inputs”, (with D. Arent, J. Cochran, J. Logan, O. Zinaman). *Energy Policy* 97, p. 378-390. 2016.
“Diffusion into new markets: Evolving customer segments in the solar photovoltaics market,” (with B. Sigrin and E. Drury). *Environmental Research Letters*. 2015.
“Implications of high renewable electricity penetration in the U.S. for water use, greenhouse gas emissions, land-use, and materials supply,” (with D. Arent, T. Mai, R. Wiser, M. Hand, S. Baldwin, G. Heath, J. Macknick, M. Bazilian, A. Schlosser, P. Denholm). *Applied Energy*. 2014.
“Shale Gas in China: Prospects, Concerns, and Potential International Collaboration,” (with M. Bazilian. A. Pedersen, J. Logan, K. Medlock III, F. O’Sullivan, J. Nakano). *Intl. Shale Gas & Oil Journal*. 2013.

SELECT HONORS & AWARDS

- 2016 Hubert and Sarah Risser Award for outstanding academic and co-curricular performance, CSM
2015 P.E.O Scholar Award, an international merit-based award for women who are expected to make significant contributions to their fields
2014 Finalist, IAEE/USAEE Best Student Paper Award
2013, 15 Scholarship to represent CSM at the 2013 Vail Global Energy Forum, supported by Stanford University’s Precourt Institute for Energy and Precourt Energy Efficiency Center
2012-13,15 Darlene Regina Pauli Scholarship, CSM Division of Economics and Business
2009 Gersten Award given by the Department of Economics, Univ. of Vermont, to a senior demonstrating outstanding academic achievement in economics
2009 College Honors (Economics), Departmental Honors (Political Science) Univ. of Vermont
2008 Milton J. Nadworny Award given by the Department of Economics for academic merit, independence of mind, determination, intellectual curiosity, and commitment to human welfare
2007-09 James Buxton Scholarship for academic achievement
2005 STAR Award for achieving a GPA in the top 5% of students on campus, Univ. of Vermont

RESEARCH GRANTS

- 2015 Center for Sustainable Energy Research Grant (\$35,000)
2014 National Renewable Energy Laboratory Research Grant (\$46,000)
2013 Joint Institute for Strategic Energy Analysis Research Grant (\$18,200)

ACADEMIC CONFERENCE & SEMINAR PRESENTATIONS

- 2018 ASSA (Philadelphia), Royal Economic Society (Brighton), Nuffield College Seminar (Oxford)
2017 University of Oxford (OxCarre), AERE Summer Conference (Pittsburgh), IAEE (Singapore), University of Sussex (SPRU), INET Oxford
2016 University of Cambridge (Judge Business School & Faculty of Economics), University of Oxford (Säid Business School), University of Manchester (Economics), Association of Environmental & Resource Economists (AERE) (Breckenridge), North Carolina State University (ARE), Colorado State University (DARE), University of Colorado at Boulder (Economics), Colorado School of Mines (Economics & Business), Front Range Energy Workshop (Golden)
2015 AERE (San Diego), University College London (International BE4 Workshop on Incorporating Behavior in Energy Research, London), CU-Boulder (Economics), CU-Boulder Environmental and Resource Economics Workshop (Vail), University of Vermont (Economics), Front Range Energy Workshop (Boulder)
2014 IAEE Best Student Paper Competition (New York), CSM (Economics & Business)

OTHER PANEL, WORKSHOP PARTICIPATION, & SPEAKING ENGAGEMENTS

- 2017 Harnessing International Cooperation to Advance Clean Energy Innovation (Council on Foreign Relations), National Renewable Energy Laboratory
2016 Breaking Carbon Lock-in: Strategies, Examples, and Proposed Action (CIFF, JISEA), Research and Matchmaking Conference of the Applied Research Programme on Energy and Economic Growth (DFID, OPM, and Berkeley), JISEA 2016 Annual Meeting (Golden)
2015 JISEA 2015 Annual Meeting (Golden)
2014 Synergies of Natural Gas and Renewable Energy Workshop (San Antonio), National Renewable Energy Laboratory (Golden)
2013 Midwest Environmental Health Policy Summit (Des Moines)
2012 University of Michigan Gerald R. Ford School of Public Policy, U.S. DOE of Indian Energy, University of Maryland

TEACHING EXPERIENCE

- 2018 Lecturer, Econometrics Session, Quantitative Skills (MSc), University of Oxford
Lecturer, Introduction to Economics (D.Phil short course), University of Oxford
2017 Grader, Energy Markets (MBA), University of Oxford
2016 Graduate Teaching Assistant, Principles of Economics (undergrad), CSM
2015, 16 “So, you want to ‘do’ econometrics?” (PhD), CSM [invited guest lecture]
2012 “What’s the Big Fracking Deal? U.S. Natural Gas Policy” (undergrad) [invited guest lecture]

PROFESSIONAL ACTIVITIES

- Refereeing:** *Oxford Review of Economic Policy, Journal of Environmental Economics and Management, Ecological Economics, Journal of Policy Analysis and Management, Resource and Energy Economics, The Energy Journal, Energy Economics, Energy Policy, Journal of Renewable and Sustainable Energy, WIREs Energy and Environment*
- Memberships:** American Economic Association (AEA), Association of Environmental & Resource Economists (AERE)

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| Service: | 2016 | USAAE CSM Chapter, Vice President |
| | 2015-16 | Women in Economics & Business Discussion Group, initiated group |
| | 2014-2015 | USAAE CSM Chapter, Secretary |

DOCTORAL STUDENTS

Yangsiyu Lu, University of Oxford (expected graduation year: 2020) (co-advisor)

SELECT MEDIA

Wall Street Journal, “As energy boom nears cities, a backlash grows,” February 27, 2013
 The Denver Post, “As energy boom nears Colorado cities, a backlash grows,” February 27, 2013
 Governing, *Stateline*, “States Scramble to Regulate, Ban Fracking,” May 9, 2012
 The Michigan Daily, “Forum considers fracking in Michigan,” December 3, 2012
 Illinois Public Radio interview on natural gas development in the U.S., 2012
 Ohio Public Radio interview on natural gas development in the U.S., 2012
 NBC-Dallas-Fort Worth, *Vortex*, “Texas Could Lead Way in Fracking Disclosure,” May 13, 2011
 Huffington Post, “Texas Fracking Bill would Be First to Require Public Disclosure of Gas Drilling Chemicals,” May 12, 2011
 Bloomberg Business, “NJ considering ban on fracking despite little gas,” June 28, 2011

SELECT POLICY BRIEFS & TECHNICAL REPORTS

Pless J., Langheim R., Machak C., Hellow H., Sigrin B., 2017. *The Price-Concentration Relationship in Early Residential Solar Third-Party Markets*, National Renewable Energy Laboratory.

Pless J., Schiele J., 2016. “Why we should think of power grids like fisheries,” Oxford Martin School *Opinion*, University of Oxford

Hepburn C., Pless J., Teytelboym A., 2016. Response to the House of Lords Economic Affairs Committee Inquiry into the *Economics of UK Energy Policy: A Focus on Electricity*.

Adams R., Pless J., Arent D., Locklin K., 2016. *Accelerating Clean Energy Commercialization: A Strategic Partnership Approach*, National Renewable Energy Laboratory.

Carmichael S., Booten C., Robertson J., Chin J., Christensen D., Pless J., Arent D., 2016. *Annual energy savings and thermal comfort of autonomously heated and cooled office chairs*, National Renewable Energy Laboratory.

Pless J., Arent D., Logan J., Cochran J., Zinaman O., Stark C., 2015. *Pathways to Decarbonization: Natural Gas and Renewable Energy*, National Renewable Energy Laboratory.

Stark C., Pless J., Logan J., Zhou E., Arent D., 2015. *Renewable Electricity: Insights for the Coming Decade*, National Renewable Energy Laboratory.

Cowlin S., Heimiller D., Macknick J., Mann M., Pless J., Munoz D., 2014. *Multi-Metric Sustainability Analysis*, National Renewable Energy Laboratory.

Bazilian, M., Pless, J., 2013. *Increasing Energy Access in Sub-Saharan Africa: Exploring Public-Private Models for Intervention*, Energy+ Technical Working Group.

Heap, D., Pless, J., 2013. “Clean Energy Finance: Challenges and Opportunities of Early-Stage Energy Investing,” National Renewable Energy Laboratory. Dec. 3, 2013.

Pless, J., 2013. *States Take the Lead on Regulating Hydraulic Fracturing: A Policymaker’s Guide*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *Natural Gas Development and Hydraulic Fracturing*. National Conference of State Legislatures. Denver, CO: NCSL.

NCSL, 2012. *Transportation Energy for the Future: A Guide for State Policymakers* (contributor). National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *Oil and Gas Severance Taxes: States Work to Alleviate Fiscal Pressures Amid the Natural Gas Boom*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *Securing our Nation's Energy*. LegisBrief. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *2012 Smart Grid Legislation*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *Metal Theft Can Threaten U.S. Energy Security: A Hot Issue in 2012*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. "Fracking Fracas," *State Legislatures Magazine*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. *Lawmakers Hammer Against Metal Theft*. LegisBrief. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2012. "Copper Robbers," *State Legislatures Magazine*, National Conference of State Legislatures, Denver, CO: NCSL.

Pless, J., 2011. *A Policymaker's Guide to Climate Economics*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Making State Gas Pipelines Safe and Reliable: An Assessment of State Policy*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Copper Theft Can Cause Major Electrical Outages and Impact Ratepayers: A Hot Issue in 2011*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Climate Change: Policy Update 2011*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *2011 Smart Grid Legislation*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Fracking Update: What States are doing to Ensure Safe Natural Gas Extraction*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Transmitting Electricity in an Increasingly Complex Energy Market*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2011. *Energy Security Legislative Update*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2010. *Taxing Natural Gas Production*. National Conference of State Legislatures. Denver, CO: NCSL.

Pless, J., 2010. *Hydraulic Fracturing: What's the Big Fracking Deal?* National Conference of State Legislatures. Denver, CO: NCSL.