

# ROBYN C. MEEKS

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## RESEARCH INTERESTS

Environmental and energy economics; development economics; and economics of the household

## PROFESSIONAL APPOINTMENTS

- 2017 – present      Duke University, Sanford School of Public Policy. Duke University Energy Initiative. *Assistant Professor*.  
*Faculty Affiliate*: Energy Access Project; Duke Center for International Development (DCID); DevLab @ Duke.
- 2016 – 2018      International Centre for Integrated Mountain Development (ICIMOD). Kathmandu, Nepal. *Visiting Scientist*.
- 2012 – 2017      University of Michigan, School of Natural Resources and Environment. *Assistant Professor in Environmental Economics* (on leave Fall 2016)  
University of Michigan, Program in the Environment. Center for Russian, Eastern European, & Eurasian Studies; African Studies Center. *Faculty Associate*.
- Fall 2016      University of Chicago, Energy Policy Institute of Chicago. *Visiting Assistant Professor*.

## EDUCATION

**Harvard University**, Kennedy School of Government, PhD in Public Policy, 2012  
Research fields: Development Economics, Environmental Economics  
Dissertation title: “Essays on the Economics of Household Water Access in Developing Countries”  
Dissertation committee: Rohini Pande (Chair), Rema Hanna, Michael Kremer

**Yale University**, School of Forestry and Environmental Studies, Masters in Environmental Management, 2005

**Brown University**, Bachelor of Arts, Political Science, 2000

## ACADEMIC PAPERS *(asterisks indicates activities with substantial work since arriving at Duke)*

### Working Papers

- \*“Rethinking Energy Efficiency in the Developing World” (with M. Fowlie). 2019. R&R at *Review of Environmental Economics and Policy*.

- \*‘‘Enforcement in electricity service delivery: Evidence from a randomized smart meter experiment’’ (with R. Isaev, A. Omuraliev, and Z. Wang), 2019.
- \*‘‘The Economic Impacts of Grid and Off-grid Electrification: Evidence from Nepal’’ (with H. Thompson), 2018.
- \*‘‘Cleaning Up the Rust Belt: Housing Market Impacts of Removing Legacy Pollutants’’ (with A. Cassidy and M. Moore), 2019.
- ‘‘Price Perception and Electricity Demand with Nonlinear Tariffs’’ (with S. McRae), 2016.

### **Peer-Reviewed Publications**

- \*‘‘Energy Efficiency and Electricity Reliability’’ (with E. Carranza). 2019. Conditionally Accepted at *Review of Economics and Statistics*.
- ‘‘Waste Not: Can Biogas Deliver Sustainable Development?’’ (with K. Sims and H. Thompson), 2019. *Environmental and Resource Economics*. 72(3)
- ‘‘Property Rights and Household Access to Water Sources: Evidence from a Land Titling Program in Rural Peru,’’ 2018. *World Development*, 102: 345-357.
- ‘‘Water Works: The Economic Impact of Water Infrastructure.’’ 2017. *Journal of Human Resources*, 52(4).
  - Won Harvard Environmental Economics Program Enel Endowment Prize for Best Doctoral Paper (2012).
- ‘‘Is Water Security Necessary? An Empirical Analysis of the Effects of Climate Hazards on National Level Economic Growth’’ (with C. Brown and Y.B. Ghile). 2013. *Philosophical Transactions A*, Water Security Special Issue, 371(202).
- ‘‘Willingness to Pay for Cleaner Water in Less Developed Countries: Systematic Review of Experimental Evidence’’ (with J.G. Hombrados, M. Kremer, E. Miguel, C. Null and A. P. Zwane). 2012. *International Initiative for Impact Evaluation Systematic Review* 006.
- ‘‘Hydroclimatic risk to economic growth in Sub-Saharan Africa’’ (with C. Brown, K. Hunu, and W. Yu). 2011. *Climatic Change* 106(4): 621-647.

### **RESEARCH IN PROGRESS**

- \*‘‘Reducing Roof-top Solar Power Supply Delivery Costs in India’’ (with M. Mahadevan)
- \*‘‘Off-Grid Energy Access in Benin’’ (with M. Jeuland).
- \*‘‘Understanding Mini-grid Infrastructure Sustainability in Nepal’’ (with D. Patiño-Echeverri, S. Pattanayak, and E. Wibbels).
- \*‘‘Institutions for Well Maintenance in Rural Uganda’’ (with R. Guiteras and A. Harris)

### **SELECT REPORTS AND OTHER PUBLICATIONS**

- ‘‘An Empirical Analysis of the Effects of Climate Variables on National Level Economic Growth’’ (with C. Brown, Y. Ghile, and K. Hunu), 2010. World Bank Policy Research

Working Paper and Background paper for World Bank World Development Report.  
<https://doi.org/10.1596/1813-9450-5357>

- “Overview Report on the Experience of International Financial Institutions and International Funds in Investing in Climate Change Mitigation in Developing Countries” (with B. Gentry, G. Walker, S. Wallander), November 2005. Background paper for the report of the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), FCCC/SBI/2005/INF.7.

## RESEARCH SUPPORT

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| 2019 | Duke Energy Initiative Research Seed Fund<br>PI: “Understanding Mini-grid Infrastructure Sustainability in Nepal”<br>(\$30,700)  |
|      | Michigan Sea Grant<br>Co-PI: “Restoration Economics: Effects of Area-of-Concern Remediation on Residential Housing Prices and Neighborhood Demographic Characteristic” (\$20,00)                   |
| 2018 | Millennium Challenge Corporation (MCC)<br>Co-PI: “MCC Benin II Off-Grid Energy Access Project Evaluation.” (\$1.8 million)   |
|      | Asian Development Bank (ADB)<br>PI: “Reducing Roof-top Solar Power Supply Delivery Costs in India.”<br>(\$268,681)   |
|      | Duke Energy Initiative Research Seed Fund<br>PI: “Understanding Mini-grid Infrastructure Sustainability in Nepal.”<br>(\$39,000)   |
|      | Sanford Pilot Funding Program.<br>PI: “Institutions for Well Maintenance in Rural Uganda” (\$14,000)   |
| 2017 | International Growth Centre (IGC)<br>PI: “The impacts of smart meters on losses in electricity distribution, electricity reliability, and household investments in energy efficiency”<br>(£39,186) |
|      | Great Lakes Commission<br>Co-PI: “Determining the Impact of Protecting and Restoring the Great Lakes” (\$40,214)   |
| 2016 | Michigan Sea Grant   |

Co-investigator: “Restoration Economics: Effects of Area-of-Concern Remediation on Residential Housing Prices and Neighborhood Demographic Characteristic” (\$224,835)

McIntire-Stennis Research Program

Co-PI: “Incentives or Information? Supporting stronger public-private forest management partnerships” (\$87,431)

2015 Michigan Institute for Teaching and Research in Economics (MITRE)  
PI: “Household Responses to Energy Price Reforms in Kyrgyzstan” (\$9,107)

University of Michigan Office of Research Faculty Grant

PI: “Household Responses to Energy Price Reforms in Kyrgyzstan” (\$9,108)

University of Michigan, Transforming Learning for a Third Century  
Co-PI (with 18 others): Transforming Sustainability Education and Case-Based Teaching (\$1,595,749)

Weiser Center Faculty Grant

PI: “Household Responses to Energy Price Reforms in Kyrgyzstan” (\$4,000)

ADVANCE Elizabeth Caroline Crosby Award (\$13,815)

2013 Univ. of Michigan OVPR Faculty Research Grant  
PI: “Estimating the impacts of a block electricity tariff on adoption of energy efficient technologies” (\$10,000)

2012 Weiser Center Faculty Grant  
PI: “Local Public Goods and Motivating Take-up of Energy Efficient Technologies” (\$1,500)

2011 National Science Foundation (NSF) Social, Behavioral, and Economics  
Doctoral Dissertation Research Improvement Grant (SES-1061989)  
Co-PI: “Economics of a Lightbulb” (\$19,900)

2010 Davis Center for Russian and Eurasian Studies Research Grant (\$4,000)

2009 Center for International Development Research Grant (\$3,000)

## HONORS AND FELLOWSHIPS RECEIVED

2012	Harvard Enel Endowment Prize
2011 - 2012	Harvard University Dissertation Completion Fellowship
2009 - 2010	Taubman Center for State and Local Government Dissertation Fellowship
2009 - 2012	Sustainability Science Program, Doctoral Fellow
2008 - 2009	Harvard Sustainability Science Program Giorgio Ruffolo Fellowship
2007 - 2008	Crump Fellowship for Environment and Natural Resource Management
2007	Norberg-Bohm Fellowship for Science, Technology and Public Policy
2006 - 2012	Harvard Environmental Economics Program, Doctoral Fellow
2006 - 2008	Harvard Kennedy School Pre-doctoral Fellowship
2005 - 2006	Fulbright U.S. Student Fellowship, Kyrgyz Republic
2004 - 2005	Foreign Language and Area Studies (FLAS) Scholarship, Russian language
2005	Hixon Center Research Fellowship
2004	Yale Carpenter-Sperry Mellon Award (Yale)

## TEACHING PERFORMED

Graduate:	<i>Duke University:</i> Pub Pol 590S/ENERGY 590S Impact Evaluation: Energy and Development (2019, planned Spring 2020); Pub Pol 813 Quantitative Evaluation Methods (2019, planned Spring 2020)
	<i>University of Michigan:</i> NRE 501.059A Environment and Development I: Impact Evaluation Methods (2013, 2015, 2016, 2017); NRE 501.059B Environment and Development II: Impact Evaluation Applications (2015, 2016, 2017);
	<i>Harvard University:</i> Environmental and Resource Economics and Policy (Teaching Fellow for Professor Robert Stavins) (2011).
Undergraduate:	<i>Duke University:</i> Pub Pol 303D.002 Microeconomics Policy Tools (2017); Bass Connections, Course on Mapping Electricity Infrastructure in Developing Countries (Team Contributor) (2018-2019, 2019-2020)

*University of Michigan:*

ENVIRON 235 Economics of Natural Resources and Environment (2013, 2015, and 2016).

## **PRESENTATIONS**

- 2019 Sustainable Energy Transitions Initiative (SETI) Conference. Santiago, Chile; AERE Annual Conference. Lake Tahoe, UT; Kyrgyz Research Institute for Energy and Economics. Bishkek, Kyrgyz Republic. Advances in Field Experiments (AFE) Conference. Chicago, IL; Harvard Environmental Economics Program (HEEP) Workshop. Cambridge, MA.
- 2018 World Congress of Environmental and Resource Economists (WCERE). Gothenburg, Sweden; University of Pennsylvania. Philadelphia, PA; Oklahoma University. Norman, OK; Duke Development Conference. Durham, NC;
- 2017 NBER Summer Institute, Energy and Environmental Economics (EEE). Cambridge, MA; World Bank, Applied Microeconomics Seminar. Washington, DC; Duke University Sanford School of Public Policy. Durham, NC; University of Michigan Department of Civil and Environmental Engineering. Ann Arbor, MI; Harvard University, Harvard Environment Economics Program (HEEP). Cambridge, MA; Sustainable Energy Transitions Initiative (SETI) Workshop. Durham, NC; UCSB Energy and Environmental Economics Occasional Workshop. Santa Barbara, CA;
- 2016 AEA Annual Meetings. San Francisco, CA; UC Berkeley Energy Institute, Berkeley, CA; NBER Spring Meeting. Cambridge, MA; Midwest Energy Fest at Northwestern University; Sustainability Science Symposium at Harvard University; AERE Annual Conference. Breckenridge, CO; Nepal Alternative Energy Promotion Center. Kathmandu, Nepal; International Centre for Integrated Mountain Development (ICIMOD) Kathmandu, Nepal; NBER Summer Institute – Energy and Environmental Economics. Cambridge, MA; Advances in Field Experiments (AFE) Conference at the University of Chicago; Energy for Economic Growth – South Asia Workshop. Kathmandu, Nepal; University of Chicago – Energy Policy Institute (EPIC). Chicago, IL; Heartland Conference at the University of Illinois;
- 2015 NEUDC at Brown University; Occasional Environmental Economics Workshop at University of California, Santa Barbara; Heartland Conference at the University of Illinois; AERE Annual Conference. San Diego, CA;

2014	Northeastern University; Erb Institute at the University of Michigan; AAEA Annual Meeting. Minneapolis, MN; Harvard Environmental Economics Program Research Workshop; APPAM Annual Meeting; Heartland Conference at the University of Illinois;
2013	AEA Annual Meetings (discussant for session on environment and health). San Diego, CA; Michigan State University, Dept. of Agricultural, Food, and Resource Economics; Midwest International Economic Development Conference (MWIEDC) at University of Wisconsin – Madison; New England Universities Development Conference (NEUDC) at Dartmouth College;
2012	Association for Public Policy and Management (APPAM) Annual Research Conference (discussant for session on water and development); CU Environmental and Resource Economics; University of Michigan, School of Natural Resources and Environment; RAND; International Water Management Institute (Delhi); University of South Carolina; University of Hawaii;
2009-2011	Harvard Development Economics Seminar; NEUDC at Yale University; Harvard Environmental Economics Program seminar; Sustainability Science Program; Campbell Collaboration Colloquium (Norway).

## **PROFESSIONAL ACTIVITIES / SERVICE**

Association Member:	American Economic Association (AEA) (2011- present) Association of Environmental and Resource Economists (AERE) (2011 – present) Agricultural & Applied Economics Association (AAEA) (2014 – 2016) Association of Public Policy Analysis and Management (2012 – 2014)
Advisory Group:	Working Group advising The Energy for Growth Hub in developing a new energy poverty metric: Reliability-Adjusted Cost of Electricity (RACE)
Affiliations:	Environment for Development (Efd); Sustainable Energy Transitions Initiative (SETI)
Journal Reviewer:	Quarterly Journal of Economics; Journal of Development Economics; American Economic Journal: Economic Policy; Economic Journal; Energy Journal; Energy Policy; Environment and Development Economics; Journal of Economic Behavior & Organization; Journal of Environmental Economics and Management; Journal of the Association of Environmental and Resource Economists; Journal of Human Resources; Resource and Energy Economics; Review of Economics and Statistics; World Development.

Grant & Conference Reviewer: AERE Annual Conference Papers (2017); World Congress of Environmental and Resource Economics (WCERE) Conference Papers (2018); International Initiative for Impact Evaluation (3ie) grant review; South Asian Network for Development and Environment Economists (SANDEE) grant review.

## SERVICE TO UNIVERSITY

Duke University Faculty Affiliate, Energy Initiative (2017-)

- Energy Initiative PhD Student Fellows Program Co-organizer (2017- current)
- Reviewed pilot grant submissions (2018, 2019)
- Reviewed Bass Connections proposals (2017, 2018, 2019)
- Represented EI on panels at Duke Energy Week (2017)

Faculty Advisory Committee, Energy Access Project (2017-)

- Led panel at EAP launch event in Washington, DC (Spring 2018)
- Present on panel addressing energy access and productive use at EAP convening in Washington, DC (Spring 2019)
- Present on panel addressing use of data analytics in energy access at EAP convening in Washington, DC (scheduled for Fall 2019)

Faculty Affiliate, University Program in Environmental Policy (UPEP)

- PhD Admissions Committee (2017-2019)

Faculty Advisor, Data+

- Project on Algorithms to Detect Electricity Theft (2019)

Sanford School of Public Policy

- Super Committee, Economics Search (2018, 2019)
- Undergraduate Awards Committee Member (2019)

Guest speaker/lecturer examples:

- ENERGY 395/795: The Business and Policy Landscape for Energy Access in East & Southern Africa (October 2018);
- ENERGY 395/795: Energy Infrastructure Map of the World (September 2018);
- UPEP PhD Seminar (2018);
- Energy Access Project Launch (February 2018)
- ENV 790.03: Clean Energy Finance (November 2017);
- GLEAN luncheon (October 2017);
- Duke University Hult Prize Competition (2017)



University of Michigan	University of Michigan Energy and Environmental Economics Seminar Co-Organizer (2015-2016) SNRE Faculty Search Committee Member, Integrated Assessment Cluster Position (2015, 2016) SNRE Environmental Policy & Planning Admissions Committee (2013-2017) Coverdell Peace Corps Scholarship Panel (2015, 2016, 2017) SNRE Masters Project Proposal Review (2016, 2017) Weiser Center Post-doctoral Review Committee (2017) Guest speaker/lecturer examples: <ul style="list-style-type: none"> <li>• Weiser Center Seminar (2015);</li> <li>• PhD-level Development Economics Course (2016);</li> <li>• Environmental and Water Resource Engineering Course (2017)</li> </ul>
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## **OTHER EXPERIENCE**

2016-2017	Asian Development Bank (ADB), Consultant.
2007-2009	Innovations for Poverty Action (IPA) and Harvard University, Research Assistant for Professors Rema Hanna and Michael Kremer
2006	Fulbright Program, U.S. Student Fellow in Kyrgyz Republic
2005-2006	UN Development Programme (UNDP) Energy and Environment Group, Consultant
2005	UN Framework Convention on Climate Change (UNFCCC), Consultant
2004	Resources for the Future (RFF), Research Intern
2003-2005	UNDP Public-Private Partnerships for the Urban Environment, Newsletter Editor
2000-2002	Peace Corps Kazakhstan, Volunteer
1996-1999	Brown University Women's Crew Team, Team member (including 1999 NCAA Division I National Champion Team)