

GABRIEL CHAN

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ACADEMIC APPOINTMENTS

University of Minnesota–Twin Cities

2015 – present	Assistant Professor, Humphrey School of Public Affairs (primary affiliation)
2018 – present	Affiliate Faculty, University of Minnesota Law School
2017 – present	Director of Graduate Study, Science, Technology, and Environmental Policy Area

PROFESSIONAL AFFILIATIONS

Institute on the Environment, University of Minnesota

2016 – present	Faculty Associate
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Belfer Center for Science and International Affairs, Harvard Kennedy School

2012 – 2015	Research Fellow, Energy Technology Innovation Policy Group
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EDUCATION

2015	Ph.D. Public Policy, Dissertation: <i>Essays on Energy Technology Innovation Policy</i> Harvard University
2009	B.S. Earth, Atmospheric, and Planetary Science B.S. Political Science Massachusetts Institute of Technology

JOURNAL ARTICLES (underline indicates student or post-doc co-author)

Chan, Gabriel, Robert Stavins, and Zou Ji. “International Climate Change Policy.” 2018. *Annual Review of Resource Economics* 10(2018): 335-360.

Huenteler, Joern, Tian Tang, **Gabriel Chan**, and Laura Diaz Anadon. 2018. “Why Is China’s Wind Power Generation Not Living up to Its Potential?” *Environmental Research Letters* 13(4).

Chan, Gabriel, Anna P. Goldstein, Amitai Bin-Nun, Laura Diaz Anadon, and Venkatesh Narayanamurti. 2017. “Six principles for energy innovation.” *Nature* 552(7683): 25-27.

Chan, Gabriel, Isaac Evans, Matthew Grimley, Ben Ihde, and Poulomi Mazumder. 2017. “Design choices and Equity Implications of Community Shared Solar.” *The Electricity Journal* 30(9): 37-41.

Anadon, Laura Diaz, **Gabriel Chan**, Amitai Y. Bin-Nun, and Venkatesh Narayanamurti. 2016. “The Pressing Energy Innovation Challenge of the U.S. National Labs.” *Nature: Energy* 1 (Article 16117).

Anadon, Laura Diaz*, **Gabriel Chan***, Alicia Harley*, Kira Matus, Suerie Moon, Sharmila Murthy, and William Clark (* indicates co-first-authorship). 2016. “Making Technological Innovation Work for Sustainable Development.” *Proceedings of the National Academies of Science* 113(35): 9682-9690.

Chan, Gabriel, Carlo Carraro, Ottmar Edenhoffer, Charles Kolstad, and Robert Stavins. 2016. “Reforming the Intergovernmental Panel on Climate Change’s Assessment of Climate Economics.” *Climate Change Economics* 7(1).

Shrimali, Gireesh, **Gabriel Chan**, Steffen Jenner, Felix Groba, and Joe Indvik. 2015. “Evaluating Renewable Portfolio Standards for In-State Renewable Deployment: Accounting for Policy Heterogeneity.” *Economics of Energy & Environmental Policy* 4(2).

Chan, Gabriel, John M. Reilly, Sergey Paltsev, and Y.-H. Henry Chen. 2012. “The Canadian Oil Sands Industry Under Carbon Constraints.” *Energy Policy* 50: 540–550.

Chan, Gabriel, Robert Stavins, Robert Stowe, Richard Sweeney. 2012. “The SO₂ Allowance-Trading System and the Clean Air Act Amendments of 1990: Reflections on 20 Years of Policy Innovation.” *National Tax Journal* 65 (2): 419–452.

Jenner, Steffen, **Gabriel Chan**, Rolf Frankenberger and Mathias Gabel. 2012. “What Drives States to Support Renewable Energy?” *The Energy Journal* 33 (2): 1–12.

Chan, Gabriel, Laura Diaz Anadon, Melissa Chan, and Audrey Lee. 2011. “Expert Elicitation of Cost, Performance, and RD&D Budgets for Coal Power with CCS.” *Energy Procedia* 4: 2685–2692.

Pugh, Graham, Leon Clarke, Robert Marlay, Page Kyle, Marshall Wise, Haewon McJeon, and **Gabriel Chan**. 2011. “Energy R&D Portfolio Analysis Based on Climate Change Mitigation.” *Energy Economics* 33: 634–643.

BOOK CHAPTERS

Anadon, Laura Diaz, **Gabriel Chan**, and Audrey Lee. 2014. “Expanding, and Improving Targeting Of, U.S. Investment in Energy Innovation: An Analytical Approach” in *Transforming U.S. Energy Innovation*. Ed. Laura Diaz Anadon, Matthew Bunn, and Venkatesh Narayanamurti. Cambridge University Press, Cambridge, U.K., and New York, NY, USA, pp. 36–80.

MANUSCRIPTS AND WORK IN PROGRESS (drafts available upon request)

“Distributed energy resource implementation among municipal utilities and electric cooperatives in the United States: Typology of place-specific transitions” (with Stephanie Lenhart, [Matthew Grimley](#), [Lindsey Forsberg](#), and Elizabeth Wilson). Revise and Resubmit at *Environmental Innovation and Societal Transitions*.

“A Dynamic Approach for Identifying Technological Breakthroughs with an Application in Solar Photovoltaics” (with [Bixuan Sun](#), [Sergey Kolesnikov](#), and [Anna Goldstein](#)). Under Review.

“Comparing and Contrasting the Institutional Relationships, Regulatory Frameworks, and Energy System Governance of European and U.S. Electric Cooperatives” (with Stephanie Lenhart, [Matthew Grimley](#), and Elizabeth Wilson). Accepted Book Chapter Manuscript

“Review of Barriers to the Deployment of Widespread Dynamic Electricity Pricing” (with Daniel Matisoff, [Ross Beppler](#), and Sanya Carley). Under Review.

“Solar Photovoltaic Interventions Have Reduced Rural Poverty in China” (with Huiming Zhang, Kai Wu, Yueming Qiu, and Xianqiang Ren). Under Review.

“Public Participation in Voluntary Green Power: Motivating Cooperative Utility Members.” (with Gilbert Michaud and [Jacob Herbers](#)). Under Review.

“Bounding the co-benefits of carbon reductions in California: Aggregate and distributional impacts” (with [Andrew Fang](#)).

“Power to, from, or for the People: Distributed Energy Resources in Public Power and Rural Cooperatives” (with Stephanie Lenhart, [Matthew Grimley](#), [Lindsey Forsberg](#), and Elizabeth Wilson)

“Sharing Benefits, Costs, and Risk in Community Shared Solar: Evidence from 100 Minnesota Subscription Contracts” (with [Matthew Grimley](#), [Isaac Evans](#), [Poulomi Mazumder](#), [Ryan Streitz](#), [Alexander Venning](#))

“A Cross-State Examination of the Community Shared Solar Landscape” (with [Jacob Herbers](#), [Ryan Streitz](#))

“Navigating Interests in Community Solar: Minnesota’s Municipal and Cooperative Utility Experience” (with [Nicholas Neuman](#), [Matthew Grimley](#), [Maureen Hoffman](#))

“Increasing Equitable Participation in Solar Energy: Opportunities and Challenges for Community Shared Solar” (with [Isaac Evans](#), [Elizabeth Arnold](#), [Jordan Morgan](#))

“Issue Linkage in the Climate Regime: Gender Policies in Climate Finance” (with [Lindsey Forsberg](#), [Peder Garnaas-Halvorson](#), [Samantha Holte](#), [DaSeul Kim](#))

“The Commercialization of Publicly Funded Science: How Licensing Federal Laboratory Inventions Affects Knowledge Spillovers.”

“The Role of the CDM in Financing Wind Energy in China, 2003 – 2012” (with Joern Huenteler)

“The Additionality of Clean Development Mechanism Projects in the Chinese Wind Sector” (with Joern Huenteler)

“Improving Decision Making for Public R&D Investment in Energy: Utilizing Expert Elicitation in Parametric Models” (with Laura Diaz Anadon)

“Crossing the Divide in Studies of Innovation: A Unifying Framework for Analysis of Multilevel Innovation Systems” (with Laura Diaz Anadon, Kira Matus, Suerie Moon, Alicia Harley, Sharmila Murthy, Vanessa Timmer, William Clark)

“Socio-Technical Characteristics as Determinants of Technology Innovation for Sustainable Development: Building Bridges Across Sectors and Disciplines” (with Laura Diaz Anadon, Kira Matus, Suerie Moon, Alicia Harley, Sharmila Murthy, Vanessa Timmer, William Clark)

“Innovation for Sustainable Development: A Systems Perspective for Policy Makers and Other Stakeholders” (with Laura Diaz Anadon, Kira Matus, Suerie Moon, Alicia Harley, Sharmila Murthy, Vanessa Timmer, William Clark)

“The Global Innovation System: A Typology of Transnational Functions for Enhancing the Benefits of Technology for Sustainable Development” (with Laura Diaz Anadon, Kira Matus, Suerie Moon, Alicia Harley, Sharmila Murthy, Vanessa Timmer, William Clark)

TECHNICAL REPORTS AND PUBLIC COMMENTS

Gabriel Chan, Matthew Grimley, Bixuan Sun. August 23, 2019. “Reply Comments on Xcel Energy’s May 1, 2019 Filing on the Calculation of the Avoided Distribution Cost Component of the Value of Solar.” Minnesota Public Utilities Commission Docket M-13-867. Public Comments and Invited Testimony before the Commission on October 31, 2019 (MN PUC staff briefing paper derived 5 decision options citing this comment and the MN PUC order on December 3, 2019 cited this comment in the establishing a stakeholder working group meeting).

Gabriel Chan, Stephanie Lenhart, Lindsey Forsberg, Matthew Grimley, and Elizabeth Wilson. 2019. “Barriers and Opportunities for Distributed Energy Resources in Minnesota’s Municipal Utilities and Electric Cooperatives.” Technical Report.

Gabriel Chan, Jordan Morgan, and Ryan Streitz. 2019. “Solar for Humanity: Nonprofit Solar Partnerships with Habitat for Humanity: Landscape and Financial Analysis with Applications for Minnesota.” Report of the Center for Science, Technology, and Environmental Policy, University of Minnesota.

Gabriel Chan, Matthew Grimley, and Nick Stumo-Langer. December 13, 2018. “Reply Comments on Xcel Energy’s 2019 VOS Calculation and Proposed 2019 Vintage Year Bill Credit Tariff Sheets.” Minnesota Public Utilities Commission Docket M-13-867. Public Comments.

Gabriel Chan, Matthew Grimley, and Nick Stumo-Langer. November 27, 2018. “Comments on Xcel Energy’s 2019 VOS Calculation and Proposed 2019 Vintage Year Bill Credit Tariff Sheets.” Minnesota Public Utilities Commission Docket M-13-867. Public Comments and Invited Testimony before the Commission on January 31, 2019 (MN PUC staff briefing paper derived 6 decision options citing this comment).

Chan, Gabriel, Lindsey Forsberg, Peder Garnaas-Halvorson, Samantha Holte, and DaSeul Kim. September 2018. *Issue Linkage in the Climate Regime: Gender Policies in Climate Finance*. Report of the Center for Science, Technology, and Environmental Policy, University of Minnesota.

Gabriel Chan, Isaac Evans, and Matthew Grimley. April 6, 2018. “Comments on Value of Solar Adders Analysis, Community Solar Gardens Program.” Minnesota Public Utilities Commission Docket M-13-867. Public Comments.

Chan, Gabriel, Matthew Grimley, Elizabeth Arnold, Isaac Evans, Jacob Herbers, Maureen Hoffman, Benjamin Ihde, Poulomi Mazumder, Jordan Morgan, Nick Neuman, and Ryan Streitz. March 2018. *Community Shared Solar in Minnesota: Learning from the First 300 Megawatts*. Report of the Center for Science, Technology, and Environmental Policy, University of Minnesota.

Bin-Nun, Amitai Y, **Gabriel Chan**, Laura Diaz Anadon, Venkatesh Narayanamurti, and Sarah Jane Maxted. November 2017. *The Department of Energy National Laboratories: Organizational Design and Management Strategies to Improve Federal Energy Innovation and Technology Transfer to the Private Sector*. Report from the Environment and Natural Resources Program and the Science, Technology, and Public Policy Program, Belfer Center for Science and International Affairs, Harvard University.

Binz, Christian, **Gabriel Chan**, Claudia Dobliger, Joern Huneteler, Dongbo Shi, Tian Tang, Lei Xu, and Laura Diaz Anadon. 2015. “Energy Technology Innovation Policy in the Backdrop of the U.S.-China Emissions Agreement.” Report from the Energy Technology Innovation Policy Research Group, Belfer Center for Science and International Affairs.

Stavins, Robert, Zou Ji et al. 2014. “International Cooperation: Agreements & Instruments.” In *Climate Change 2014: Mitigation of Climate Change* (Intergovernmental Panel on Climate Change 5th Assessment Report of Working Group III). Cambridge, Cambridge University Press. (**Gabriel Chan**: Chapter Scientist and Contributing Author)

Edenhofer, Ottmar, Ramon Pichs-Madruga, Youba Sakona, Susanne Kadner, Jan Minx, and Steffen Brunner. 2014. “Technical Summary.” In *Climate Change 2014: Mitigation of Climate Change* (Intergovernmental Panel on Climate Change 5th Assessment Report of Working Group III). Cambridge, Cambridge University Press. (**Gabriel Chan**: Contributing Author)

Anadon, Laura Diaz, Kira Matus, Suerie Moon, **Gabriel Chan**, Alicia Harley, Sharmila Murthy, Ahmed Abdel Latif, Kathleen Araujo, Kayje Booker, Hyundo Choi, Kristian Dubrawski, Lonia Friedlander, Christina Ingersoll, Erin Kempster, Laura Pereira, Jennie Stephens, Vanessa Timmer, Lee Vinsel, and William C. Clark. 2014. “Innovation and Access to Technologies for Sustainable Development: Diagnosing Weaknesses and Identifying Interventions in the Transnational Arena.” Harvard Sustainability Science Working Paper #2014-01.

Anadon, Laura Diaz, Valentina Bosetti, **Gabriel Chan**, Gregory Nemet, and Elena Verdolini. 2014. “Energy Technology Expert Elicitations for Policy: Workshops, Modeling, and Meta-Analysis.” Belfer Center Discussion Paper #2014-08.

Anadon, Laura Diaz, Matthew Bunn, **Gabriel Chan**, Melissa Chan, Charles Jones, Ruud Kempener, Audrey Lee, Nathaniel Logar, and Venkatesh Narayanamurti. 2011. “Transforming U.S. Energy Innovation.” Report from the Energy Technology Innovation Policy Research Group, Belfer Center for Science and International Affairs.

Anadon, Laura Diaz, Matthew Bunn, **Gabriel Chan**, Melissa Chan, Kelly Sims Gallagher, Charles Jones, Ruud Kempener, Audrey Lee, Venkatesh Narayanamurti. 2010. “DOE FY 2011 Budget Request for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendations.” Report from the Energy Technology Innovation Policy Research Group, Belfer Center for Science and International Affairs.

OP-EDS, POLICY BRIEFS, ESSAYS, PODCASTS, AND TESTIMONY

Gabriel Chan. February 7, 2019. “Cooperative electricity generation and distribution.” Oral testimony before the Minnesota House of Representatives Energy and Climate Finance and Policy Division.

Gabriel Chan. January 21, 2019. “Ratepayer Impact of Xcel Energy’s Community Solar Garden Program.” Oral testimony before the Minnesota House of Representatives Energy and Climate Finance and Policy Division for Bill H.F. 2625 and Oral Testimony to the Minnesota Senate for Bill S.F. 1891.

Gabriel Chan, [Lindsey Forsberg](#), and [Matthew Grimley](#). December 20, 2018. “After Xcel Energy’s Zero-Carbon Pledge, Let’s Make Sure the Public Benefits.” *MinnPost*. Op-Ed.

Gabriel Chan, [Lindsey Forsberg](#), [Peder Garnaas-Halvorson](#), [Samantha Holte](#). June 2018. “Issue Linkage in the Climate Regime: Gender Policies in Climate Finance.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Gabriel Chan, [Matthew Grimley](#), [Elizabeth Arnold](#), [Isaac Evans](#), [Jacob Herbers](#), [Maureen Hoffman](#), [Benjamin Ihde](#), [Jordan Morgan](#), [Nick Neuman](#), and [Ryan Streit](#). March 2018. “Community Shared Solar in Minnesota: Learning from the First 300 Megawatts.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Gabriel Chan, [Isaac Evans](#), [Elizabeth Arnold](#), [Matthew Grimley](#), [Jacob Herbers](#), [Benjamin Ihde](#), [Poulomi Mazumder](#), [Jordan Morgan](#), [Nick Neuman](#), and [Ryan Streit](#). March 2018. “Broadening Access to Solar Energy:

Community Shared Solar Programs.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Gabriel Chan and Jacob Herbers. January 30, 2018. “Solar tariffs more likely to cut than protect jobs.” *Minnesota Star Tribune*. Op-Ed.

Gabriel Chan, Lindsey Forsberg, Peder Garnaas-Halvorson, Samantha Holte. November 2017. “Linking Gender Policy and Climate Finance.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Ellen Anderson, **Gabriel Chan**, and Melissa Hortman. June 7, 2017. “Minnesota steps up to the plate on climate.” *Minnesota Star Tribune*. Op-Ed.

Gabriel Chan. May 19, 2017. “Climate and Environmental Policy in Trump’s First 100 Days: A Summary through a Gender Lens.” *Gender Policy Report*. Essay.

Gabriel Chan. January 30, 2017. “Public Funding for Energy Research and Development.” *Civios*. Podcast.

Gabriel Chan and Peder Garnaas-Halvorson. January 16, 2017. “What’s to Come for More Gender-Responsive Climate Policy?” *Gender Policy Report*. Essay.

Gabriel Chan, Jill Rook, and Ashfaul Chowdhury. November 2016. “Cooperative Climate Change R&D That Works.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Gabriel Chan, Haley Bloomquist, Brianna Denk, and Alexandra Hillstrom. November 2016. “Guidelines for a Sectoral Sustainable Development Mechanism in the Post-2020 Climate Regime.” University of Minnesota Center for Science Technology and Environmental Policy. Policy Brief.

Karnamadakala Rahul Sharma and **Gabriel Chan**. October 31, 2016. “Energy Poverty: Electrification and Well-Being.” *Nature: Energy - News & Views* 1 (Article 16171).

Narayanamurti, Venkatesh, Laura Diaz Anadon, **Gabriel Chan**, and Amitai Bin-Nun. 2015. Written Testimony to the U.S. Senate Appropriations Subcommittee on Energy & Water Development Hearing on “Securing America’s Future: Realizing the Potential of the DOE National Laboratories.”

TEACHING

PA5790: Energy Justice Reading Group

Humphrey School of Public Affairs, University of Minnesota
Fall 2019

ARCH 5250/PA5 790: Global Convergence Laboratory (Graduate level, study “abroad” course in Puerto Rico)

Humphrey School of Public Affairs and School of Architecture, University of Minnesota
Co-Instructors: Prof. Jacob Mans and Megan Vorhees
Partners: National Institute for Energy and Island Sustainability
Spring 2019, Spring 2020

PA 5045: Statistics for Public Affairs, Accelerated (Masters level)

Humphrey School of Public Affairs, University of Minnesota
Fall 2018, Fall 2019

PA 5031: Empirical Analysis I (Masters level)

Humphrey School of Public Affairs, University of Minnesota
Fall 2017

PA 5724: Climate Change Policy (Masters level)

Humphrey School of Public Affairs, University of Minnesota
Fall 2016, Fall 2017, Fall 2018

PA 5790: International Climate Change Policy: The United Nations Framework Convention on Climate Change

COP22 (Masters level, study abroad course in Marrakech, Morocco)
Co-Instructors: Hon. Melissa Hortman and Ellen Anderson
Humphrey School of Public Affairs, University of Minnesota
Fall 2016

PA 5711: Science, Technology, and Environmental Policy (Masters level)
Humphrey School of Public Affairs, University of Minnesota
Fall 2015, Fall 2016, Fall 2017, Fall 2018

PA 8706: Interdisciplinary Research Seminar on Science, Technology, and Environmental Policy (Ph.D. level)
Humphrey School of Public Affairs, University of Minnesota
Fall 2015

RESEARCH EXPERIENCE AND OTHER EMPLOYMENT

- 2011 – 2014 Intergovernmental Panel on Climate Change 5th Assessment Report: Working Group III, Chapter Scientist & Contributing Author, “Ch 13: International Cooperation: Agreements and Instruments.”
- 2007, 2009 U.S. Department of Energy, Intern in the Climate Change Technology Program

RESEARCH GRANTS, FELLOWSHIPS, AND AWARDS

- 2020 – 2021 McKnight Foundation for “Municipal and Cooperative Utility Engagement Platform.” **PI: Gabriel Chan**, Partners: Clean Energy Resource Teams, Great Plains Institute. (Award Total: \$100,000, University of Minnesota Total: \$71,868)
- 2019 – 2020 Mitchell Foundation for “Trajectories of Change for Scaling Up Community Solar in Texas.” PI: Varun Rai (University of Texas-Austin), **Co-PI: Gabriel Chan**. (Award Total: \$100,000, University of Minnesota Sub-Award: \$65,000)
- 2019 – 2020 McKnight Foundation for “Low-Income Access to Community Solar.” **PI: Gabriel Chan**, Partners: GRID Alternatives, Fresh Energy. (Award Total: \$78,000, University of Minnesota Total: \$66,500)
- 2018 – 2021 U.S. Department of Energy Solar Energy Technology Office for “Sharing the Sun: Community Solar Data and Cost.” PI: Jenny Heeter (National Renewable Energy Lab). **Sub-Award PI: Gabriel Chan**. (Award Total: \$579,669, University of Minnesota Sub-Award: \$125,805)
- 2018 – 2021 Alfred P. Sloan Foundation for “What Factor Drive Innovation in Energy Technologies? The Role of Technology Spillovers and Government Investment.” PI: Venkatesh Narayanamurti, Harvard University, **Co-PI: Gabriel Chan**, Co-PI: Laura Diaz Anadon, Cambridge University. (Award Total: \$560,788, University of Minnesota Sub-Award: \$215,865)
- 2018 University of Minnesota Global Programs & Strategy Alliance, International Travel Grant. (\$1,500)
- 2018 – 2019 Hennepin County for “Fleet Electrification Project” to University of Minnesota Institute on the Environment Link program. PI: Jeff Standish. **Advisory Faculty: Gabriel Chan**. (\$35,000)
- 2018 University of Minnesota Central Regional Sustainable Development Partnership for “Solar for Humanity” **PI: Gabriel Chan**, Partners: Rural Renewable Energy Alliance. (\$21,000)
- 2017 – 2018 McKnight Foundation for “Public Power: Opportunities and Barriers for Distributed Energy Resources in Minnesota’s Municipal and Cooperative Utilities.” **PI: Gabriel Chan**, Co-PI: Elizabeth Wilson, Dartmouth University. (\$100,000)
- 2017 – 2018 University of Minnesota Center for Urban and Regional Affairs, Faculty Interactive Research Program for “Sharing the Same Sun: A Collaborative Research Initiative on Community Solar Programs: Part 1 – Lessons from Minnesota.” **PI: Gabriel Chan**. (\$45,427)
- 2017 – 2018 University of Minnesota Office of the Vice President for Research, Grant-in-Aid of Research, Artistry, and Scholarship for “Sharing the Same Sun: A Collaborative Research Initiative on Community Solar Programs: Part 2 – Cross-State Comparison.” **PI: Gabriel Chan**. (\$34,319)
- 2017 Multicultural Research Award, University of Minnesota for “Understanding Gender-Responsiveness of Multilateral Climate Finance.” **PI: Gabriel Chan**. (\$7,000)
- 2016 - 2018 National Science Foundation, Sustainability Research Network (SRN): Sustainable Healthy Cities. Lead PI: Anu Ramawami, Co-PIs: Patricia Culligan, Armistead Russell, Yingling Fan, Benjamin Orlove. **Research Faculty: Gabriel Chan** (among 21 research faculty). (Grant total: \$12,000,000, Gabriel Chan Supervisory Responsibility: \$117,922)

- 2014 – 2015 Dissertation Completion Fellowship, Harvard Graduate Society
- 2012 – 2015 Pre-Doctoral Fellowship, Belfer Center for Science, Technology, and Public Policy (\$55,000)
- 2011 – 2012 Pre-Doctoral Fellowship, Harvard Sustainability Science Program (\$17,500)
- 2010 – 2012 Fellow, Harvard Graduate Consortium on Energy and the Environment (\$6,000)
- 2010 – 2011 Vicki-Norberg Bohm Fellowship, Harvard Kennedy School for “The U.S. Energy Technology Innovation System: A Cross-Sectoral Investigation of the Interface between Technologists, Policymakers and Financiers.” (\$7,000)
- 2009 – 2015 Pre-doctoral fellow, Harvard Environmental Economics Program
- 2009 – 2011 Doctoral Fellowship, Harvard Kennedy School
- 2009 U.S. Department of Energy Scholars Program

AWARDS AND HONORS

- 2019-2021 University of Minnesota McKnight Land-Grant Professorship “to advance the careers of new assistant professors at a crucial point in their professional lives.” (Award: \$50,000)
- 2019 Named to Midwest Energy News’ 40 Under 40 “highlighting emerging leaders throughout the region and their work in America’s transition to a clean energy economy”

ACADEMIC CONFERENCES, WORKSHOPS, AND INVITED SEMINARS (includes scheduled)

- 2020 University of Minnesota (STEP Seminar, Institute on the Environment 2nd Mondays Series)
2nd Workshop on What Factors Drive Innovation in Energy Technologies (co-convener, Cambridge)
Cambridge Centre for Environment, Energy and Natural Resource Governance (seminar)
2nd Workshop on Trajectories of Change for Scaling Up Community Solar in Texas (co-convener, Mitchell Foundation)
- 2019 University of Minnesota (STEP Seminar x2, Diversity through the Disciplines, Law School Faculty Work in Progress Seminar)
Sustainable Healthy Cities NSF SRN Annual Workshop (presenter)
ITIF Energy Innovation Boot Camp for Early Career Scholars (workshop participant)
APPAM Fall Research Conference (presenter x2; discussant)
Energy Policy Research Conference (presenter)
Energy Justice Workshop (Indiana University; workshop participant)
1st Workshop on What Factors Drive Innovation in Energy Technologies (co-convener, Harvard)
RE-AMP Network Workshop on Translating Across Boundaries: A Convening of Academics and Advocates on Climate Change (workshop participant)
American Solar Energy Society National Conference (presenter)
International Conference on Energy Research & Social Science (presenter)
RISE 2019: Transforming University Engagement in Pre- and Post-Disaster Environments: Lessons from Puerto Rico (presenter, workshop participant)
1st Workshop on Trajectories of Change for Scaling Up Community Solar in Texas (co-convener, UT-Austin)
- 2018 Indiana University School of Public and Environmental Affairs (seminar)
Arizona State University (workshop participant)
Adaptation Futures Conference (Cape Town, South Africa)
American Solar Energy Society National Solar Conference (presenter)

- Energy Policy Research Conference (presenter)
 Energy Policy Institute at the U of Chicago: Clean Energy Innovation (workshop participant)
 University of Minnesota (Freeman Seminar; STEP Seminar),
 APPAM Fall Research Conference (presenter x2; poster; discussant)
- 2017 Association for Public Policy Analysis & Management (presenter; discussant)
 US/International Association for Energy Economics (presenter)
 Energy Policy Research Conference (presenter)
 APPAM International Conference (presenter; discussant)
 Danish Technical University (seminar)
 EU CARISMA Project (workshop participant)
 Sustainable Healthy Cities NSF SRN Annual Workshop (presenter)
- 2016 Carnegie Mellon Center for Climate and Energy Decision Making (workshop participant)
 Harvard Sustainability Science Symposium (presenter)
 Association of Environmental and Resource Economists Summer Conference (presenter)
 Workshop on Making Technological Innovation Work for Sustainable Development (UCL, co-convener)
 Sustainable Healthy Cities NSF SRN Annual Workshop (workshop participant)
 Association for Public Policy Analysis & Management (presenter x2; discussant)
 Municipal Utilities Workshop (Florida State University, presenter)
- 2015 University of Minnesota Humphrey School (seminar x2)
 University of Minnesota Applied Economics (seminar)
 Heartland Environmental & Resource Economics Workshop at Illinois (UI-Urbana-Champaign, presenter)
 University of Colorado Boulder Environmental and Resource Economics Workshop (presenter)
 Academy of Management (presenter)
 Association for Public Policy Analysis & Management (presenter; discussant)
 U.S. Department of Energy Office of Energy Efficiency and Renewable Energy (seminar)
- 2014 Lawrence Berkeley National Laboratory (seminar)
 International Energy Agency (seminar, workshop participant)
 Technology Transfer Society Conference (presenter)
 Harvard Kennedy School Energy Policy Seminar (seminar)
 INFORMS Annual Meeting (presenter)
 Harvard Business School Science Based Business Seminar (seminar)
- 2013 Harvard Kennedy School Energy Policy Seminar (seminar)
 Harvard Business School Science Based Business Seminar (seminar)
 Atlanta Conference on Science and Innovation Policy (presenter)
 NC State University Camp Resources (presenter)
- 2012 International Conference on Science and Technology Indicators (presenter)
 Snowmass Climate Change Impacts and Integrated Assessment Workshop XVIII (presenter)
- 2011 International Energy Workshop (presenter)
- 2010 Pacific Northwest National Laboratory (workshop)

World Student Environmental Summit (keynote)
 International Conference on Greenhouse Gas Technologies (presenter)
 National Renewable Energy Laboratory (presenter)
 2009 U.S. Department of Energy: Office of Policy (seminar)

REFeree SERVICE

Referee for *Environmental Research Letters*, *Climate Policy*, *Nature Climate Change*, *Proceedings of the National Academy of Science*, *Environmental and Resource Economics*, *Energy Economics*, *Energy Policy*, *Energy Research & Social Science* (x2), *The Journal of Technology Transfer* (x2), Cambridge University Press (book manuscript), *Journal of Cleaner Production*, *Environmental Policy and Governance*, *Review of Environmental Economics and Policy*, *Journal of Benefit Cost Analysis*, *Sustainable Production and Consumption*, *International Environmental Agreements: Politics, Law and Economics*, *Progress in Photovoltaics*, *American Solar Energy Society Annual Conference Referee*, *Journal of Policy and Management*, *Renewable & Sustainable Energy Reviews*

SERVICE TO THE PUBLIC AND THE PROFESSION OUTSIDE OF THE UNIVERSITY OF MINNESOTA

Member, Science Advisory Council, Minnesota Center for Environmental Advocacy (2019 -)
 Advisor, Cleveland Owns report on “Equitable Community Solar: Policy and Program Guidance for Community Solar Programs that Promote Racial and Economic Equity” (2019 - 2020)
 Advisor, Cooperative Energy Futures report for “Response to City of Minneapolis Request for Information for Electricity from Renewable Sources for Minneapolis Municipal Operations and Community-Wide Goals” (2019)
 Member, Study Advisory Committee to the Energy Transition Lab, Cadmus Group, Institute for Local Self-Reliance, and the City of Minneapolis Study on “Tariffed On-Bill Financing Feasibility” (2019)
 Reviewer, U.S. Department of Energy Solar in Your Community Challenge (2019)
 Member, Motley Sustainability Advisory Council (2018 -)
 Member, Advisory Committee, Midwest Energy News 40 Under 40 (2018)
 Grant Reviewer, Alfred P. Sloan Foundation (2017)

SERVICE TO THE UNIVERSITY OF MINNESOTA

Faculty Advisor, Energy, Environment, and Policy Club student group (2019 -)
 Faculty Advisor, Law, Policy, and Business Collaborative on Energy and Environment student group (2019 -)
 Member, Humphrey School Assistant Professor in STEP Search Committee (2019 - 2020)
 Chair, Institute on the Environment Associates Advisory Board (2018 -)
 Member, Associate Directors Search Committee, University of Minnesota Institute on the Environment (2018 - 2019)
 Member, Strategic Planning Advisory Committee, University of Minnesota Energy Transition Lab (2018 - 2019)
 Member, Faculty Leadership Council, University of Minnesota Institute on the Environment (2017 -); Engagement Working Group Chair
 Curator (Built & Natural Environment Area), Gender Policy Report, University of Minnesota (2017 -)
 Member, Faculty Advisory Board, University of Minnesota Acara Impact Entrepreneurship Program (2016 -)
 Member, Ph.D. Committee, University of Minnesota Humphrey School (2016 - 2019)
 Member, Humphrey School Assistant Professor in STEP Search Committee (2017 - 2018)
 Co-Chair, Humphrey School Associate Dean Search Committee (2017)
 Grant Reviewer, University of Minnesota Interdisciplinary Perspectives on International Development (2016)
 Grant Reviewer, UMN Office of the Vice President for Research Serendipity Grants on Renewable Energy (2015)

MEDIA APPEARANCES

Feb 6, 2020	MPR News: Climate Cast. Radio interview for “MN students were in Puerto Rico learning about energy resilience when a quake knocked the power out” which covers our class.
Jan 31, 2020	Humphrey School News. Quoted in “‘Surreal’ Experience for UMN Students Who Were in Puerto Rico During Earthquakes” which covers our class.
Jan 30, 2020	KMSP (Fox Minnesota). Television interview for “U of M students studying how to respond to natural disasters visit Puerto Rico as earthquakes hit country” which covers our class.
Jan 3, 2020	Midwest Energy News. Profiled in “Minnesota academic pursues ‘engaged scholarship’ on clean energy policy.”
Dec 15, 2019	NPR. Quoted in “Powered by Faith, religious groups emerge as a conduit for a just solar boom.”
Dec 7, 2019	Knowable Magazine. Quoted in “The tricky task of tallying carbon.”
Oct 10, 2019	Minnesota Daily. Quoted in “Institute on the Environment releases statewide strategic plan.”
Nov 21, 2019	Midwest Energy News. Quoted in “Minnesota ‘value of solar’ compromise likely to boost community solar payments.”
Sep 30, 2019	UMN Law School News. Quoted in “A Cross-Field Collaboration to Tackle Thorny Environmental and Energy Issues.”
Sep 17, 2019	WCCO (CBS Minnesota). Television interview for “What causes gas prices to rise?”
Sep 9, 2019	Midwest Energy News. Quoted in “Xcel Energy seeks changes as ‘value of solar’ rate spike looms in Minnesota.”
Feb 21, 2019	Minnesota Daily. Quoted in “UMN researchers incorporate solar panels in low-income housing” which summarizes our research.
Feb 7, 2019	Minnesota Daily. Quoted in “UMN researchers explore access to sustainable energy around Minnesota.”
Jan 25, 2019	Humphrey School News. Quoted in “Humphrey School's Gabe Chan Awarded McKnight Professorship to Support Research in Energy Policy.”
Jan 24, 2019	Minnesota Daily. Quoted in “UMN collaborates with Puerto Rico to explore sustainable energy.” Summarized and syndicated by the Associated Press and other outlets.
Dec 27, 2018	Star Tribune. Quoted in “Complicated economics of community solar gardens subject of debate.”
Dec 27, 2018	Star Tribune. Quoted in “Minnesota set to see second consecutive year of strong solar energy growth.”
Dec 19, 2018	MPR News. Climate Cast. Radio interview for “How Xcel could bring carbon-free power to Minnesota.”
Dec 5, 2018	Minnesota Daily. Quoted in “UMN student, professor combine efforts on environmental advocacy.”
Nov 8, 2018	Minnesota Daily. Quoted in “University changes course on energy efficiency program”
Oct 12, 2018	Brainerd Dispatch. Featured in “Humphrey School students and RREAL team up for ‘Solar for Humanity’”
Oct 9, 2018	WCCO (CBS Minnesota). Television interview for “What are the top ways emissions are produced?”
Apr 3, 2018	WCCO (CBS Minnesota). Television interview for “What are the fuel emission standards for our cars?”
Mar 7, 2018	MPR News. Live radio interview on “Renewables now the number two source of power generation in Minnesota”
Feb 1, 2018	MPR News: Climate Cast. Radio interview for “Solar energy is booming. Why a tariff now?”

- Jan 26, 2018 MinnPost. Quoted in “Solar flare-up: new Trump tariffs inject 10,000 watts of uncertainty into one of Minnesota’s fastest growing industries”
- Jan 25, 2018 MPR News. Live radio interview for “Is renewable energy hurt or helped by high tariffs?”
- Dec 6, 2017 Minnesota Daily. Quoted in “Researchers link acceptance of climate change to group identity”
- Dec 5, 2019 Humphrey School News. Quoted in “Humphrey School Students Get Up-Close Look at UN Climate Talks.”
- Jun 8, 2017 Minnesota Daily. Quoted in “UMN faculty to Trump: Leaving Paris Agreement will impact U.S.”
- Mar 28, 2017 MPR News. Quoted in “Economics, not EPA, drive down power plant emissions in Minnesota”
- Dec 16, 2016 MinnPost. Quoted in “Clean Power Plan B: Why Minnesota will be a climate leader in Trump’s America”
- Aug 5, 2016 Inside Climate News. Quoted in “Do IPCC Reports Communicate Effectively”

PUBLIC AND PRACTITIONER PRESENTATIONS

- Jan 29, 2020 Minnesota Department of Commerce. Speaker at MN PUC-directed workshop on “Value of Solar’s Avoided Distribution Capacity: New York’s Experience”
- Dec 11, 2019 Environmental Initiative. Speaker at “Electrification: Who Benefits?”
- Nov 15, 2019 Solar Energy Industries Association and Smart Electric Power Alliance: Solar and Energy Storage Midwest on “How to Expand Community Solar in the Midwest”
- Oct 22, 2019 Association of Professional Schools of International Affairs: Public and International Service Advisor Network (PISA) training on “Strategies for Engaging Students in International Affairs”
- Oct 15, 2019 University of Minnesota Law School on “The Legal and Scientific Case for Recovering Climate Change Damages in Minnesota from Fossil Fuel Companies”
- Oct 3, 2019 University of Minnesota (Social Concerns Committee) Climate Solutions: Carbon Pricing and Policy on “Innovation: Climate Savior or Climate Distraction”
- Jul 9-10, 2019 Coalition for Community Solar Access: Community Solar Summit on “Opening Session & Breakfast: Achieving Community Solar at Scale” and “Market Roundup: The Early Birds - Colorado and Minnesota”
- Jun 14, 2019 Minnesota’s Clean Energy Future Series (hosted at the University of Minnesota) on
- May 16, 2019 U.S. Department of Energy, Solar Energy Technology Office: SETO Community Solar Workshop on “The Value of Solar Tariff: Experience from Minnesota’s Solar*Rewards Community Program”
- May 7, 2019 Theater of Public Policy and Community Power. Panelist on “Preparing for a Climate Crossroads”
- Apr 8, 2019 Minnesota Department of Commerce: Solar Minnesota on “Barriers and Opportunities for Distributed Energy Resources in Minnesota’s Municipal Utilities and Electric Cooperatives” (with Matthew Grimley)
- Mar 7, 2019 University of Minnesota (co-convener), Clean Energy Resource Teams, and Great Plains Institute. “Dialogue on Distributed Energy Resources w/ Cooperative & Municipal Utilities”
- Jan 29, 2019 Third Way. Briefing on “An Analytical Approach to Improving Public Energy R&D Investment Decisions” (with Laura Diaz Anadon).
- Oct 5, 2018 Rural Renewable Energy Alliance. Presentation at organization headquarters on “Incorporating Solar in Habitat for Humanity Households: Study Design and Preliminary Findings.”
- Sep 6, 2018 Minnesota Rural Electric Association CEO’s Meeting. Speaker on “The Challenges and Opportunities of Distributed Energy Resources for Municipal Utilities and Electric Cooperatives.”
- Jun 15, 2017 Environmental Initiative. Speaker at “Policy Forum Series: The Changing Federal-State Relationship & Minnesota’s Environment.”

- Feb 1, 2017 University of Minnesota College of Biological Science: The Petri Dish. Panelist at “Where do we go from here? The science, policy and politics of addressing and adapting to global-scale environmental change.”
- Jan 17, 2017 Minnesota State Bar Association. Presenter at “Environmental and Energy Law and Policy Under a Trump Administration.”
- Jan 10, 2017 Kinect Energy Group. Presenter on Monthly Webinar “What to Expect for Environmental Regulation in a Trump Administration.”

GRADUATE THESIS COMMITTEES

- in progress Dellwo, Kristy. ““Bridging the Gap Between Traditional Agro-Business Sustainability Programs and the Urgency for Science-based Targets: A Case Study for CHS Inc.” *Committee Member*
- Dampha, Nfamara. “Socio-economic & Ecosystem Service Assessment of Climate Change Impacts in a Developing Island Capital City, Banjul The Gambia.” Ph.D. in Applied Economics. *Committee Member*.
- Ernt, Lauren. TBD. M.A. in the Hubbard School of Journalism and Mass Communication.
- Domingo, Nina. TBD. Ph.D. in Bioproducts and Biosystems Engineering.
- Colgan, Kimberly. TBD. Ph.D. in Bioproducts and Biosystems Engineering.
- Mayer, Terin. TBD. Ph.D. in Public Affairs.
- 2020 O’Malley, Jane. “Comparative Analysis of CCS Development Across Five Nations.” *Committee Chair*
- Kirby, Eileen. “Climate Change and Disaster Response: Informing frameworks for analyzing evacuation planning and policy effectiveness through a comparative review of wildfire and hurricane evacuation studies.” *Committee Chair*
- 2019 Fang, Andrew. “Carbon, Air Pollution, and Health (CAH) Co-Benefits at the urban scale: Planning documents, coupled modeling and uncertainty.” Ph.D. in Public Policy. *Committee Member*.
- Grimley, Matt. ““Cooperative is an Oxymoron!”: The History of How 4 Electric Cooperatives Created Load Management in Minnesota.” MS-STEP, Thesis. *Committee Chair*
- Forsberg, Lindsey. “Market Rules in Transition: Energy Storage and the U.S. Electricity Grid.” MS-STEP, Thesis. *Committee Chair*
- Martin, Ben. “Effects of Ground-Mounted Solar Installations on Values of Abutting Residential Properties.” MPP. *Committee Chair*
- Venning, Alex. “Behind-the-Meter Battery Energy Storage in Minnesota: Assessment of Value, Challenges, and Policy Opportunities.” MS-STEP. *Committee Chair*
- Kelbrants, Ryan. “Advancing Sustainable Management Practices to Responsibly Produce Corn to Feed and Power the World.” M.L.S. *Committee Member*
- 2018 Sun, Bixuan. “Strategic Interactions in the Transition to Clean Energy.” Ph.D. in Applied Economics. *Committee Member*.
- Hillstrom, Alexandra. “Incorporating ‘sustainability’ in Inver Grove Heights Fleet Management.” MS-STEP. *Committee Chair*.
- Kosse, Rachel. “Will Doubling Urban Agriculture in the Twin Cities Improve Self-Reliance?” MS-STEP. *Committee Member*.
- 2017 Chowdhury, Ashfaqu. “Additionality requirement in CDM carbon offset projects: Lessons for moving forward.” MPP. *Committee Chair*.

Cronk, Sarah. “The place for corporate strategy in the regulated electric industry: Case study of Xcel Energy Inc. regulatory filings.” MPP. *Committee Chair*.

Gurke, Kate. “Impacts of Scale on Food Waste Technologies: An Analysis of Three Technology Options for the City of Minneapolis.” MS-STEP. *Committee Chair*.

Hanson, Aaron. “Market and Policy Landscape for Energy Efficient Homes.” MS-STEP. *Committee Chair*.

Plouff, Abbie. “Reimagining the Iron Range Resource Economy: Lessons from Appalachia on Economic Diversification in a Post-Mining.” MPP. *Committee Chair*.

Rook, Jill. “Successful International Cooperative R&D: An Institutional Analysis to Enhance Innovation in Clean Energy Technologies.” MS-STEP. *Committee Chair*.

Santhanam, Sukumar. “Equitable Loss Allocation in Distribution Systems.” MS in Electrical Engineering. *Committee Member*.

Sharma, Rahul. “Boundary Organizations in Practice: Neighborhood-scale Organic Waste Management in Linden Hills, Minneapolis.” MPP. *Committee Co-Chair*.

Terwilliger, Hanna. “Distributed Small Scale Solar Growth in Minnesota.” MPP. *Committee Chair*.

2016

Beets, Rebecca. “Governing CRISPR: Evaluating Ethics, Risk, and Regulation in Gene Drive Research.” MS-STEP. *Committee Member*.

Hemmingsen-Jaeger, Amanda. “Direct-to-consumer genetic testing: Where we are and where we could be.” MS-STEP. *Committee Member*.

Gurung, Tashi. “Climate Change Adaptation policies in Himalayan Region of Nepal. Comparative analysis of INDCs between Nepal, India, and Peru.” MS-STEP. *Committee Member*.

PROFESSIONAL ORGANIZATIONS

Association of Public Policy Analysis and Management, American Solar Energy Society

OTHER SERVICE

Educational Councilor for M.I.T. (2016 - 2019)

PERSONAL INFORMATION

Date of birth: 8/3/1987, Sex: Male, Citizenship: U.S., Legal name: Gabriel Angelo Sherak Au-Chan