

Noah Kittner

Assistant Professor

Environmental Sciences and Engineering
Gillings School of Global Public Health
Affiliated Faculty, Department of City and Regional Planning
Affiliated Faculty, Environment, Ecology, and Energy Program
University of North Carolina at Chapel Hill
157 Rosenau Hall, 135 Dauer Drive
Chapel Hill, NC 27599-7400
919-962-0995
kittner@unc.edu

Education

- Ph.D. University of California, Berkeley, 2018
Energy and Resources
Dissertation: *Energy systems integration and innovation for a clean energy transition* (Chair: Daniel M. Kammen)
- M.S. University of California, Berkeley, 2015
Energy and Resources
Thesis: *Sustainable Electricity Options for Kosovo*
Readers: Daniel M. Kammen & Duncan Callaway
- B.S. University of North Carolina at Chapel Hill, 2011
Environmental Science (highest honors and distinction)
Concentration: Energy and Sustainability
Double Minor: Mathematics, Urban Studies and Planning
Senior Honors Thesis: An Environmental Life Cycle Comparison of Crystalline and Thin-Film Photovoltaic Systems in Thailand

Professional Experience

Employment and Academic Rank

- Assistant Professor, Environmental Sciences and Engineering, UNC, 2019 - present
- Affiliated Assistant Professor, Department of City and Regional Planning, UNC, 2019 – present
- Affiliated Assistant Professor, Environment, Ecology, and Energy Program, UNC, 2019 – present
- Senior Researcher in Energy Systems Modeling, Group for Sustainability and Technology,
Department of Management, Technology, and Economics, ETH Zürich, Switzerland, 2018-2019
- National Science Foundation Graduate Research Fellow, Energy Engineering, UC Berkeley, 2014-2018
- National Science Foundation Systems Approach to Green Energy – IGERT Fellow, UC Berkeley 2014-2018

Visiting Researcher, Energy Research Institute, Chulalongkorn University, 2013-2017; time split in Bangkok, Thailand and USA

Fulbright Research Fellow in Energy, Joint Graduate School for Energy and Environment, King Mongkut's University of Technology Thonburi and UNC, 2011-2012

Other Appointments

Faculty Mentor, UNC MPH Program, Health Equity, Social Justice and Human Rights Concentration 2019-present

Honors

Editor's Choice Award, Social Science – Nature Communications, 2022

Favourites after five, Nature Energy, 2021

UNC Junior Faculty Development Award, 2020

Energy Innovation Policy and Management Scholar, Information Technology & Innovation Foundation, 2019

Robert Bosch Stiftung Foundation, Postdoc Academy for Transformational Leadership – *declined*, 2019

Tsinghua University, Energy, Climate, and Sustainability Award

National Science Foundation Graduate Research Fellowship, 2014-2018

NSF SAGE-IGERT Award, Berkeley Center for Green Chemistry, 2014-2018

SAGE Berkeley Center for Green Chemistry International Travel Award, 2014, 2015

Art Rosenfeld Award for Energy Efficiency, Berkeley Energy and Climate Initiative, 2015

National Go Solar Foundation Graduate Award, 2014

DIL Explore, UC Berkeley, 2013

Fulbright US Student Program, US State Department, 2011-2012

FLAS Fellow, Thai Language, University of Wisconsin, 2011

UNC Class of 1938 Fellow, Kampala, Uganda, 2010

UNC Institute for the Environment Bill Glaze Award for Environmental Science, 2009

Memberships

Sustainability Transitions Research Network, IEEE Power and Energy Society Sustainable Energy Systems for Developing Countries Working Group's Task Force on Sustainable Microgrids, REN21 Global Status Report, AGU 2018, ACS, APA

ERG Committee for Equity, Inclusion and Diversity, 2015-2017

Bibliography

Peer Reviewed Journal Publications

(<https://orcid.org/0000-0002-3449-7823>)

(*indicates corresponding author; ** indicates student or mentee)

27. Eyring, N.**, **Kittner, N.***. High-resolution electricity generation model demonstrates suitability of high-altitude floating solar power. *iScience*. Accepted in Principle

26. Almeida, R., Schmitt, R.J.P., Castelletti, A., Flecker, A.S., Harou, J., Heilpern, S.A., **Kittner, N.**, Kondolf, G.M., Opperman, J.J., Shi, Q., Gomes, C.P., McIntyre, P.B. (2022). Strategic planning of hydropower development: balancing benefits and socioenvironmental costs. *Current Opinion in Environmental Sustainability*. In Press

25. Zero, S., Zuzul, S., Huremovic, J., Pehnec, G., Beslic, I., Rinkovec, J., Godec, R., **Kittner, N.**, Pavlovic, K., Pozar, N., Castillo, J. J., Sanchez, S., Manouskas, M.I., Furger, M., Prevot, A.S.H., Mocnik, G., Dzepina, K. (2022). [New Insight into the Measurements of Particle-Bound Metals in the Urban and Remote Atmospheres of the Sarajevo Canton and Modeled Impacts of Particulate Air Pollution in Bosnia and Herzegovina](#). *Environmental Science and Technology*.
24. Shan, R.** , Reagan, J., Castellanos, S., Kurtz, S., **Kittner, N.***. (2022). [Evaluating emerging long duration energy storage technologies](#). *Renewable and Sustainable Energy Reviews*. 159, 112240.
23. Scheier, E.** , **Kittner, N.*** (2022). [A measurement strategy to address disparities across household energy burdens](#). *Nature Communications*. 13, 288.
22. Yu, Y.** , Yamaguchi, K., **Kittner N.*** (2022). [How do imports and exports affect green productivity? New evidence from partially linear functional-coefficient models](#). *Journal of Environmental Management*, 308, 114422.
21. Scolaro, M.** , **Kittner, N.*** (2022). [Optimizing hybrid offshore wind farms for cost-competitive hydrogen production in Germany](#). *International Journal of Hydrogen Energy*. 47, 10, 6478-6493.
20. Elliott, M.** , **Kittner, N.*** (2022) [Operational grid and environmental impacts for a V2G-enabled electric school bus fleet using DC fast chargers](#). *Sustainable Production and Consumption*, 30, 316-330.
19. **Kittner, N.***, Castellanos, S., Hidalgo-Gonzalez, P., Kammen, D.M., Kurtz, S. (2021). [Cross-sector storage and modeling needed for deep decarbonization](#). *Joule*, 5, 10, 2529-2534.
18. Ou, Y.** , **Kittner, N.**, Babaei, S., Smith, S.J., Nolte, C.G., Loughlin, D.H. (2021). [Evaluating long-term emission impacts of large-scale electric vehicle deployment in the US using a human-earth systems model](#). *Applied Energy*, 300, 117364.
17. Schmitt, R.J.P.* , **Kittner, N.**, Kondolf, G.M., Kammen, D.M. (2021). [Joint strategic energy and river basin planning to reduce dam impacts on rivers in Myanmar](#). *Environmental Research Letters*, 16(5), 054054.
16. Junlakarn, S., **Kittner, N.***, Tongsopit, S., Saelim, S. (2021). [A cross-country comparison of compensation mechanisms for distributed photovoltaics in the Philippines, Thailand, and Vietnam](#). *Renewable and Sustainable Energy Reviews*, 110820.
15. Markard, J.* , Bento, N., **Kittner, N.**, Nunez-Jimenez, A. (2020). [Destined for decline? Examining nuclear energy from a technological innovation systems perspective](#). *Energy Research & Social Science*, 67, 10152.
14. Schmitt, R.J.P.* , **Kittner, N.***, Kondolf, G.M., Kammen, D.M. (2019). [Deploy diverse renewables to save tropical rivers](#). *Nature*, 569, 330-332.
13. Huang, Y.W.** , **Kittner, N.***, Kammen, D.M. (2019). [ASEAN Grid Flexibility: Preparedness for Grid Integration of Renewable Energy](#). *Energy Policy*, 128, 711-726. (undergrad mentee)
12. **Kittner, N.**, Fadadu, R.** , Buckley, H., Schwarzman, M., Kammen, D.M. (2018). [Trace metal content of coal exacerbates air pollution-related health risks: the case of lignite coal in Kosovo](#).

Environmental Science and Technology, 52, 2359-2367.

11. **Kittner, N.** & Kammen, D.M. (2018). [A battery of innovative choices—if we commit to investing](#). *Bulletin of the Atomic Scientists*, 74(1): 7-10.
10. Jagger, P., Sellers, S., **Kittner, N.**, Das, I., Bush, G. (2018). [Looking for Medium-term Conservation and Development Impacts of Community Management Agreements in Uganda's Rwenzori Mountains National Park](#). *Ecological Economics* 152, 199-206.
9. Sunter, D., Ferrall, I., Knapstein, J., Garfield, D., **Kittner, N.**, Kammen, D.M (2018). [Quantifying innovation patterns in next generation photovoltaics](#). *IEEE PVSC*.
8. **Kittner, N.**, Lill, F., Kammen, D.M. (2017). [Energy storage deployment and innovation for the clean energy transition](#). *Nature Energy* 2, 17125.
7. Jagger, P., **Kittner, N.** (2017). [Deforestation and Biomass Fuel Dynamics in Uganda](#). *Biomass & Bioenergy* 105, 1-9.
6. **Kittner, N.**, Dimco, H., Azemi, V., Tairyan, E., Kammen, DM. (2016) [An analytic framework to assess future electricity options in Kosovo](#). *Environmental Research Letters*. 11(10), 104013.
5. **Kittner, N.**, Gheewala, S.H., Kammen, DM. (2016) [Energy return on investment \(EROI\) of mini-hydro and solar PV systems designed for a mini-grid](#). *Renewable Energy*, 99, 410-419.
4. Tongsopit, S., **Kittner, N.**, Chang, Y., Aksornkij, A., & Wangjiraniran, W. (2016). [Energy security in ASEAN: A quantitative approach for sustainable energy policy](#). *Energy Policy*, 90, 60-72.
3. Kammen, D.M., **Kittner, N.** (2015). [Energy in the Balkans](#). *Economist* (UK), 411 (8951), 10 September 2015.
2. **Kittner, N.**, Gheewala S.H., Kamens, R., (2013). [An Environmental Life Cycle Comparison of Single-Crystalline and Thin-Film Photovoltaic Systems in Thailand](#). *Energy for Sustainable Development*, 17(6): 605-614.
1. **Kittner, N.** Gheewala S.H., Kamens, R., (2012). [Life Cycle Considerations for Monocrystalline Photovoltaics in Thailand](#). *Journal of Sustainable Energy and Environment*, 3: 143-146.

Featured in News Media: [Al Jazeera](#), National Geographic Energy Blog, Forbes, Huffington Post, IEEE Spectrum, New York Times, PV Magazine, Think Progress, Green Tech Media, Vox, S&P Global Intelligence, Wall Street Journal, Clean Technica, Solar Magazine

Poster

Dzepina, K. et al. (34 authors). Sarajevo Canton Winter Field Campaign 2018: particulate air pollution in a global hotspot. European Aerosol Conference 2020.

Books, Chapters, and Reports

Kittner, N.*, Kammen, D.M. forthcoming. Kosovo's Conflict Coal: Regional stability through coordinated investments in sustainable energy infrastructure. In *Energy Policy for Peace*. Elsevier. Eds: Yamaguchi, K., Yoshikawa, H.

Weatherby, C.*, Intralwan, A., Junlakarn, S., **Kittner, N.**, Kokchang, P., Schmitt, R.J.P (2021). [Alternative Development Pathways for Thailand's Sustainable Electricity Trade with Laos](#). Stimson Center Report.

Ullman, A.**, **Kittner, N.***. (2021). [Addressing Racial Disparities in US Port Development through Inclusive Port Decarbonization Planning](#). *Carolina Planning Journal*.

Kittner, N.*, Schmidt, O., Staffell, I., Kammen, D.M. (2020). [Technological learning for grid-scale energy storage](#). In: *Technological Learning in the Transition to a Low-Carbon Energy System*. Editors: Junginger, H.M., Louwen, A.

Kittner, N.*, Tsiropoulos, I., Tarvydas, D., Schmidt, O., Staffell, I., Kammen, D.M. (2020). [Technological learning and experience curves for electric vehicles](#). In: *Technological Learning in the Transition to a Low-Carbon Energy System*. Editors: Junginger, H.M., Louwen, A.

Jagger, P., R. Bailis, A. Dermawan, N. **Kittner**, and R. McCord. (2019). [SDG 7: Affordable and Clean Energy – How Access to Affordable and Clean Energy Affects Forests and Forest-Based Livelihoods](#). In *Sustainable Development Goals: Their Impacts on Forests and People*. P. Katila, C.J.P. Colfer, W. de Jong, G. Galloway, P. Pacheco and G. Winkel, G. (eds.) Cambridge, UK: Cambridge University Press.

Kittner, N. et al. (2018). [Electricity Futures in the Greater Mekong Subregion: Towards Sustainability, Inclusive Development, and Conflict Resolution](#). Editors: Yoshikawa, H. & Anbumozhi, V. ERIA-RPR-2017-8. Chapters 1,3,7.

Avila, N.*, **Kittner, N.***, Shirley, R.*, Dwyer, M.B., Roberts, D., Sager, J., Kammen, D.M. Beyond the battery: [Power expansion alternatives for economic resilience and diversity in Lao PDR](#). Harvard Kennedy School Ash Center Vietnam Program. In: *Resource Governance, Agriculture and Sustainable Livelihoods in the Lower Mekong Basin*, ed. Le Viet Phu, Nguyen Van Giap, Le Thi Quynh Tram, Chu Thai Hoanh and Malcolm McPherson (Petaling Jaya: SIRD; Lower Mekong Public Policy Initiative, 2019), chapter 2. *authors contributed equally

Kittner, N. & Yamaguchi, K. (2017). [Hydropower threatens peace in Myanmar—but it doesn't have to](#). *Nikkei Asian Review*.

Gheewala, S.H., **Kittner, N.**, Shi, X. (2017). [Costs and benefits of biofuels in Asia](#). In: *Routledge Handbook of Energy in Asia*. Editor: Bhattacharyya, S. Chapter 24.

REN 21 [2017 Global Status Report](#) Country Lead (Noah Kittner): Kosovo, Lao PDR .

Kittner, N., Kammen, D.M., Tankosic-Kelly, G., Rankovic, A., Taso, N. (2016). [South East Europe: The EU Road or Road to Nowhere? An energy roadmap for 2050: Technical analysis](#). SEE Change NET. Energy Community, European Commission.

Tongsopit, S., Chaitusaney, S., Limmanee, A., **Kittner, N.**, Hoontrakul, P. (2015). [Scaling Up Solar PV: A roadmap for Thailand](#). Thai Ministry of Energy, Chulalongkorn University.

Edie, S., Evans, T., **Kittner, N.**, Mui, A. (2010). Solar Photovoltaic Suitability for the Campus of the University of North Carolina at Chapel Hill. Unpublished report.

Editorials in Popular Media

Kurtz, S., **Kittner, N.**, Castellanos, S., Hidalgo-Gonzalez, P., Kammen, D.M. (2021). [For Cleaner, Greener Power, Expand the Definition of “Batteries.”](#) *Issues in Science and Technology*. (June 11, 2021).

Kittner, N. & Tongsopit, S. (2019). [Demystifying the road to clean air](#). *Bangkok Post*.

Kittner, N. (2018). [Energy and Peace: Can the two co-exist in Myanmar?](#). *WLE Thrive Blog*. CGIAR Program on Water, Land and Ecosystems.

Kittner, N. & Tongsopit, S. (2018.) [Thailand to Taiwan: Look to Renewable Energy and Storage](#). *The News Lens*. Taiwan.

Kittner, N. & Kammen, D.M. (2018). [Misplaced Praise](#). *Transitions Online*.

Tongsopit, S. & **Kittner, N.** (2017). [Nation lacks a coherent solar strategy](#). *Bangkok Post*.

Kittner, N. (2015). [กรณีโคโซโว พลังงานหมุนเวียนราคาถูกกว่าถ่านหิน](#). In the case of Kosovo, renewable energy is cheaper than coal. *Thai Publica*. Translation assistance: Yanyong Boon-Long.

Research Grants

Pending

Sloan Foundation. \$499,995. “Energy Systems Electrification and Equity.” Principal Investigator.

UNC Creativity Hubs. \$5,000. “Heat, Energy, and Health Equity”. Principal Investigator.

Current

California Energy Commission, Kittner: Principal Investigator, \$236,000, “Modeling Long Duration Storage for Decarbonization of California’s Power System”, August 1, 2020-September 1, 2023

US DOT, STRIDE, “Mobility on Demand Transit for Smart, Sustainable Cities,” Co-Principal Investigator, \$130,000, August 1, 2020-September

UNC Junior Faculty Development Award, \$10,000, Jan. 1, 2020-Dec. 31, 2020

UNC Center for Galapagos Studies, \$5,000 Faculty Seed Grant, Jan. 1, 2020-Dec. 31-2020.

Stimson Center, \$6,000, Modeling Thailand’s Future Energy System, Summer 2020

NCSU GEARS International Training Initiative, \$3,600, Trained 6 undergraduate students in beginning

applied energy research July 2020-September 2021.

Previous

Policy Alternatives Research Institute, University of Tokyo, \$200,000 2016-2018, total. Sustainable energy futures in Myanmar and GMS. PI: Kammen, Role: Co-researcher

Lower Mekong Public Policy Initiative, \$89,267.40, total. PI: Kammen, Role: Co-researcher

SEE Change Net, \$50,000, total. Renewable and Appropriate Energy Laboratory. South East Europe Energy Model, SEE Change NET, Sarajevo, Bosnia & Herzegovina, Role: Deputy Technical Lead

Rockefeller Brothers Foundation, Energy Investment Options for Kosovo, Renewable and Appropriate Energy Laboratory, Researcher, \$80,000, PI: Kammen, Role: Co-researcher

Development Impact Lab, USAID Explore Grant, \$5,000, Kittner, Developing Solar PV for Thai Communities

Class of 1938 Travel Fellowship, Kampala, Uganda, \$4,500, 2010

Teaching Activities

Courses Taught: University of North Carolina

ENVR/PLAN/ENEC 635 Energy Modeling for Environment and Public Health, Department of Environmental Sciences and Engineering

30 graduate and undergraduate students –energy systems and sustainability Spring 2022

PLAN/ENEC/ENVR 548 Sustainable Energy Systems, Department of City and Regional Planning

45 undergraduate and graduate students –energy systems and sustainability Fall 2021

ENVR 890 Energy Modeling for Environment and Public Health, Environmental Sciences and Engineering

20 graduate and advanced undergraduate students Spring 2021

PLAN 390 Sustainable Energy Systems, Department of City and Regional Planning

30 undergraduate students – new course on energy systems Fall 2020

ENVR 695 Independent Study, Department of Environmental Sciences and Engineering

2 undergraduate students enrolled in independent study. Spring 2020

ENEC 395 Independent Study, Environment, Ecology, and Energy Program

3 undergraduate students enrolled in independent study. Fall 2020

ENVR 403 Environmental Chemistry, Department of Environmental Sciences and Engineering

Instructor: Surratt, J. (two guest lectures on Energy and Climate, Kittner). Spring 2020, 2021

ENEC 993 Master's Research, Environment, Ecology and Energy Program
1 graduate student enrolled in independent study.

Fall 2020

Courses Taught: ETH Zürich, Switzerland

D-MTEC Corporate Sustainability, Technology Track (25 students)

Fall 2018

Energy Innovation and Management, Energy Modeling Seminar (20 students) Spring 2019

Courses Taught: UC Berkeley

ER 292A Tools of the Trade, Energy and Resources Group (15 students).

Fall 2015

CHEM 234 – Green Chemistry: An Interdisciplinary Approach to Sustainability

UC Berkeley, Spring 2016. Guest Lecturer for Life Cycle Assessment. Instructors: McKeag, Schwarzman, and Buckley. (15)

VME 057B – Global Population, Health, and Environment

UC Davis, online, Spring 2018. Guest Lecturer for Environmental Health. Instructor: Smith, W. (20)

Chulalongkorn University – Energy Systems Modeling Seminar

Fall 2016. Taught and Prepared Interactive Lectures on Energy System Planning Models
MS in Energy Technology Management Program (35)

Advising Activities

PhD Advisor UNC

Rui Shan, Environmental Sciences and Engineering (Fall 2020-)

Ying Yu, Environmental Sciences and Engineering (Fall 2020-)

Amanda Ullman, City & Regional Planning (Fall 2020-), Fulbright Fellowship (2022-23)

Sunjoo Hwang, Environmental Sciences and Engineering (Fall 2021-)

MS Advisor UNC

Eric Scheier, MS Student, Environment, Ecology, and Energy Program (E3P), “Net energy equity: A net energy framework to assess energy poverty in American households” Spring 2021

Now: US DOE Solar Energy Innovation Fellow

Andrew Zalesak, MS, Environmental Sciences and Engineering (Fall 2020-)

Quentin Martinez, MS, Environment, Ecology, and Energy Program (E3P) (Fall 2021-)

Kira Moodliar, MSPH, Environmental Sciences and Engineering (Spring 2022-)

UNC Senior Honors Thesis Advisor

Audrey Frye, BS, Environmental Science, 2022

Austin Snyder, BS, Environmental Science, 2022

Mentored Undergraduate Research UNC

Audrey Frye, BS, Environmental Science (writing honors thesis)
 Vidhi Patel, BSPH, Environmental Sciences and Engineering
 Melanie Elliott, BS, Physics, (Peak shaving from electric school buses) 2020-21
 Ellie Wilkoff, BS, Environmental Science, 2020
 Hongyu Li, BS, Environmental Science (Long-duration energy storage modeling), 2020-2021
 Austin Snyder, BS, Environmental Science (Optimal energy storage for deep decarbonization), honors thesis 2019-22
 Eugene Kang, BA, Urban Planning minor (Political economy of coal in Kosovo), 2019-20

MS Committee UNC

Joy Hill, MS Student, Environmental Sciences and Engineering (2020)
 Rosa Cuppari, MS Student, Environmental Sciences and Engineering (2020)
 Corey Pahel-Short, MS Student, Environmental Sciences and Engineering

PhD Committee UNC

Holly Haflich, PhD Student, Environmental Sciences and Engineering
 Rosa Cuppari, PhD Student, Environmental Sciences and Engineering
 Kshitiz Khanal, PhD Student, City and Regional Planning (Faculty Co-Mentor, Duke Energy Analytics PhD Fellow)

Faculty Mentor MPH@UNC

6 students total

Faculty Mentor MCRP

Anthony Burkett, Dylan Dodson, Kristin Podsiad, Cameron McBroom-Fitterer

Honors Thesis Committee

Jessie LaMasse, Kenan-Flagler Business School, BS 2021
 Kerina Patel, Environmental Science, BS 2021

MS Advisor ETH Zürich (2018-19)

Michele Scolaro, MSc, Energy Science and Technology, *Optimizing investments in hybrid offshore wind farms: a case study for Germany*
 Paulina Vachet, MSc, Energy Science and Technology, *The increasing share of soft costs and their learning in residential and utility-scale PV*
 Srivaishnavi Kalahasti, MAS, Management, Technology, and Economics, *Cost-competitive electric vehicles*
 Jonas Peschel, MSc Management, Technology, Economics, *Electric mobility diffusion*
 Nicholas Eyring, MSc Management, Technology, Economics, *Development and impacts of high altitude and floating solar photovoltaics*

Senior Thesis Advisor UC Berkeley (2016-2018)

Nicole Huang, BS Environmental Sciences, ASEAN Grid Flexibility: Preparedness for Integration of Renewable Energy, published in *Energy Policy*

Raj Fadadu, BSPH Public Health, Air-Pollution-Related Health Risks of Trace Metals in Coal, published in *Environmental Science and Technology*

Review Service

Environmental Science & Technology, Energy Conversion & Management, Energy Policy, Energy Reports, Energy Research & Social Science, Energy for Sustainable Development, Energy Strategy Reviews, Environmental Innovation and Societal Transitions, Environmental Research Letters, Joule, Journal of Cleaner Production, Journal of Sustainable Forestry, International Forestry Review, Nature Energy, Physical Review Letters, Renewable Energy, Renewable and Sustainable Energy Reviews, Renewable and Sustainable Energy Transition, Science of the Total Environment, Scientific Reports, Sustainable Production and Consumption, Case Studies in the Environment, Cell Reports Physical Science, Climate Resilience and Sustainability, The Energy Journal, International Journal of Energy Research, The International Journal of Life Cycle Assessment, PNAS Nexus, PLOS One, Urban Planning, Utilities Policy, World Development, World Development Perspectives, IRENA, IEA Energy Technology Perspectives, Project Drawdown, Thailand Ministry of Energy

Award & Grant Review Service

UNC Class of 1938 Fellowship (2020)

UNC Service

*UNC Environment, Ecology, and Energy Program Graduate Admissions Committee (2021-
UNC FLAS Award Review Committee (2022)*

Search Committees

UNC Public Policy, Research Scientist, Data Scientist (2021)

Products of Engaged Scholarship

Student Group Faculty Mentor

North Carolina Reinvest Chapter at UNC-Chapel Hill, undergraduate student organization
Carolina 360, environmental undergraduate student organization

Conference Service

Grid Innovation Panel, UNC Clean Tech Summit 2020

Session Chair, Air Quality, Climate and Energy, CMAS 2020, 2021

Public Presentation

Tufts Energy Conference, 2021, Panelist, *Moving forward with hydropower*

UN Environment, Innovative Solutions to Pollution in South East and Southern Europe, Belgrade, Serbia, 2018

USAID Clean Power Asia and Philippines Department of Energy, 2018

9th US-Vietnam Science & Technology Joint Committee Meeting (US State Department) representing US Higher Education, 2015
 Thailand Ministry of Energy 2017, 2018
 PTIT, Thailand 2017, 2018
 Asia Clean Energy Forum, Speaker, Asia Development Bank, Manila, PH June 2016
 World Bank Annual Meetings, 2014-2016

Invited Lectures and Seminars

High Meadows Environmental Institute, Princeton University, 2021
 International Energy Agency, Energy Technology Perspectives Energy Storage, Paris France, 2019
 Greater Mekong Subregion Academic Research Network Meeting, Luang Prabang, 2019
 Huazhong Agricultural University, Wuhan, China, 2019
 Hong Kong University of Science and Technology, Department of Public Policy, Hong Kong, 2019
 University of British Columbia, Department of Wood Science, Vancouver, Canada, 2019
 Barnard College, Department of Environmental Science, 2019
 University of North Carolina, Environment, Ecology, and Energy Program, 2019
 University of Florida, Engineering School of Sustainable Infrastructure and Environment, 2019
 Mercator Research Institute on Global Commons and Climate Change, Berlin, 2019
 Xi'an Jiatong University, Keynote Nanotechnology, Renewable Energy, and Sustainability, 2019
 The Graduate Institute, Geneva, Centre for International Environmental Studies, 2019
 PACT, Cumulative Impact Assessment on Lower Mekong Regional Water and Energy Infrastructure Development and Planning, Chiang Rai, Thailand, 2018
 ETH Zürich, Department of Management, Technology, and Economics, 2018
 Tsinghua-Berkeley Shenzhen Institute, Environmental Science and New Energy Technology, 2018
 University of San Francisco, Energy Systems Management, 2018
 TU Delft, Technology, Management, and Policy Seminar, 2018
 UC Berkeley, Energy and Resources Group Colloquium, 2018
 University of Illinois Urbana-Champaign, Civil and Environmental Engineering, 2018
 3rd US-China GMS Development Dialogue 2017
 Karlsruhe Institute of Technology, Reflex, EU Horizon 2020 Workshop, 2017
 Harvard Kennedy School, Lower Mekong Public Policy Initiative, 2017
 Academia Sinica, Advanced Institute on Disaster Risk Reduction with Systems Approach for Slow-Onset Climate Disasters (AI-SOCD) – Air Pollution, Sensors, and Big Data, Taipei, Taiwan, 2017
 University of North Carolina at Chapel Hill, Curriculum for Ecology and Environment, 2017
 Thammasat University, 2016
 University of Tokyo, Policy Alternatives Research Institute, 2015, 2016
 MINES ParisTech, Center for Applied Mathematics, 2015
 Fulbright University Vietnam, Ho Chi Minh City, 2015
 Can Tho University, Vietnam, NSF Meeting on Lower Mekong Energy Issues, 2015
 USGS Patuxent Wildlife Research Center, NSF Partnerships in Lower Mekong, 2015
 University of Washington, School of Aquatic and Fishery Sciences, NSF Workshop, 2015
 SDEWES 2015. Co-Chair Session on Decarbonization. Quantifying Energy Efficiency Opportunities in Kosovo's Power Sector. Dubrovnik, Croatia, 2015
 UN COP21 Paris, December 2015
 UN Our Common Future International Scientific Conference, Paris, 2015

Other Experience

Millennium Challenge Corporation, Environmental and Social Performance Consultant, Kosovo Energy Compact, 2020-2022

Lower Mekong Initiative, Sustainable Infrastructure Partnership, US Dept. of State, Training Leader, Expert Training Course: Cumulative Impact Assessment on Lower Mekong Regional Water and Energy Infrastructure Development and Planning, 2018

USAID Clean Power Asia, Technical Consultant, Technical and Economic Impacts of Distributed PV in Philippines 2018

UTokyo – RAEL Southeast Asia Energy Modeler, Develop Optimization Model in Myanmar and GMS, Work with MOEE and Advise DRD on mini-grid deployment 2016-2018

Thailand Solar PV Roadmap Project, Led and coordinated project funded by British Embassy Bangkok, Worked with GIZ to develop policy documents on solar transition in Thailand 2013-2015

ACS Green Chemistry and Engineering Summer School, 2014, Fellowship Recipient

Biomass Cooking Fuels Project, Carolina Population Center, FUEL Lab, Pam Jagger, PI 2012-2013

Engineers without Borders – Daniel A. Okun Chapter, Solar Mexico, Installed 20 off-grid solar home systems in San Luis Potosi, Mexico 2011

UNC Energy Management, Energy auditing and efficiency intern, Developing Energy Leaders Through Action, 2010

Uganda Forestry Resources and Institutions, Visiting Researcher at Makerere University Faculty of Forestry, Kampala Uganda with Dr. Pamela Jagger and Dr. Abwoli Banana, 2010

UNC Plant Ecology Lab Technician, Carolina Vegetation Survey Research Assistant, 2008-2011

Flathead Lake Biological Station, Summer Research in Field Ecology, University of Montana, 2008