# Pamela Jordan Wildstein

pjwildst@umich.edu

## EDUCATION

**University of Michigan, Ann Arbor, MI**                                   **May 2025**
Doctor of Philosophy, Environment and Sustainability & Urban and Regional Planning

**University of Michigan, Ann Arbor, MI**                                   **April 2022**
Master of Science, Environment and Sustainability
    Concentration: Sustainable Systems

**Cornell University, Ithaca, NY**                                   **May 2020**
Bachelor of Science, Environmental and Sustainability Sciences
    Magna Cum Laude
    Distinction in Research
    Minors: Climate Change, Urban and Regional Studies

## EXPERIENCE

**Graduate Researcher, Advancing Sustainable Systems through low-impact Energy Technologies (ASSET) Lab**                                   **August 2020 – Present**
*Ann Arbor, MI*

- Employed python to analyze and manage large volumes of data (~ 1 TB) consisting of hourly household electricity consumption, customer tariff schedules, demand response and low-income assistance program enrollment, and climate zone locations
- Used statistical methods to assess the reliability contribution and performance of California residential time of use rates from 2020-2022 during hours deemed high risk by the California Independent System Operator
- Developed household- and power-system level models to determine the impact of override behavior on the reliability contribution (effective load carrying capability) of a residential summer smart thermostat-based direct load control program
- Leveraged ResStock and ComStock representative building profiles from the U.S. Department of Energy's Open Energy Data Initiative as inputs to a national lab microgrid model

**Graduate Fellow, University of Michigan Institute for Energy Solutions**                                   **January 2024 - Present**
*Ann Arbor, MI*

- Collaborated with an interdisciplinary graduate student cohort to scope, design, and implement an energy project for a specific stakeholder group
- Created an education module on the Gala Learning Platform intended to teach undergraduate students how to leverage time of use electricity rates and demand response programs to meet campus decarbonization goals

**Energy Industry Analyst (Student Trainee), Federal Energy Regulatory Commission, Office of Energy Policy and Innovation**                                   **May 2024 – August 2024**
*Washington, DC*

- Completed a historical analysis of demand response and energy efficiency revenues, capacity market outcomes, energy market offer strategy, performance, and market concentration for multiple regional transmission organizations
- Analyzed results to develop policy recommendations and created visuals to communicate findings to a multidisciplinary audience

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**Research Assistant, Cornell Institute for Climate Smart Solutions**          **October 2018 - June 2020**
*Ithaca, NY*
- Developed curriculum for a 12-week, 40-hour Climate Stewardship Program
- Wrote and submitted grants to fund various projects relating to sustainability and agriculture
- Facilitated conferences and meetings that brought together professionals and experts from applicable fields

## GRANTS AND AWARDS

- University of Michigan Institute for Energy Solutions Graduate Fellowship – 2023-2024 cohort
- National Science Foundation Graduate Research Fellowship – awarded March 2020

## PUBLICATIONS

- Wildstein, P. J., From Placemaking to Gridmaking: The Evolving Role of Communities in a more Distributed Electric Grid. *Under Review*
- Wildstein, P. J., Craig, M. T., & Vaishnav, P. (2023). Participant overrides can halve the reliability value of direct load control programs. Energy and Buildings, 299, 113606. https://doi.org/10.1016/j.enbuild.2023.113606
- Wildstein, P. 2020. "The Rise of the Distribution System Operator: Designing a Wholesale Electricity Market to Fully Integrate Distributed Energy Resource Aggregations," Undergraduate Thesis, Cornell University.
- Chatrchyan, A.; Eiseman, D.; Wildstein, P. "Building Climate Resilience through Engaged Research with Farmers, Communities, and Youth," United Nations Framework Convention on Climate Change (UNFCCC) SB50 Research Dialogue, Bonn, Germany. June 20, 2019.

## PRESENTATIONS

- "Quantifying the Impact of Override Behavior on a Summer Demand Response Program," March 25, 2023, American Association of Geographers 2023 General Meeting, Denver, Colorado
- "Quantifying the Impact of Override Behavior, October 25, 2022, United States Association for Energy Economics, Houston, Texas
- "Quantifying the Impact of Override Behavior on the Performance of a Summer Direct Load Control Program," June 22, 2022, International Symposium on Sustainable Systems and Technology, Pittsburgh, Pennsylvania

## SKILLS

- Python (Numpy, Pandas, Scikit-learn, Statsmodels, Matplotlib, Seaborn, Plotly)
- SQL
- Time-series analysis
- Data visualization
- Microsoft Office