

# Zoë L. Ketola

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## EDUCATION

- In Progress*      Doctor of Philosophy, Energy and Environmental Policy  
Joseph R. Biden, Jr. School of Public Policy and Administration  
University of Delaware  
Unidel Distinguished Graduate Fellow  
Sustainable Places Research Group  
Center for Research in Wind  
Advisor: Dr. Nina David
- 2023      Master of Science, Environmental and Energy Policy  
Department of Social Sciences  
Michigan Technological University  
Thesis: *Accepting Change: Facets of Acceptance & Sustainable  
Redevelopment*  
Co-Advisors: Dr. Chelsea Schelly, Dr. Roman Sidortsov
- 2020      Bachelor of Science, Engineering – Systems Engineering  
Department of Engineering Fundamentals  
Michigan Technological University  
Minors: Environmental Studies, Business
- 2018      Renewable Energy Innovation & Sustainability Course  
Reykjavik University, Iceland

## PUBLICATIONS

### Journal Articles

Tiwari, S., [Ketola, Z.](#), Schelly, C., Boyer-Cole, E. *Rural Sociology*. (2024). Energy Service Security for Public Health Resilience: Perceptions and Concerns in the Western Upper Peninsula of Michigan. <https://doi.org/10.1111/ruso.12571>

[Ketola, Z.](#), Tiwari, S., Schelly, C. (2024). *Sustainable Earth Reviews*. How forcing community resilience in rural communities harms sustainable development. <https://doi.org/10.1186/s42055-024-00071-0>

### Reports

Tiwari, S., [Ketola, Z.](#), Schelly, C., Boyer-Cole, E. (2023). Energy Service Security for Public Health Resilience in Michigan's Western Upper Peninsula. *Natural Hazards Center Public Health Disaster Research Report Series*, 28. University of Colorado Boulder. <https://hazards.colorado.edu/public-health-disaster-research/energy-service-security-for-public-health-resilience-in-michigans-western-upper-peninsula>

Sidortsov, R., Tiwari, S., Scarlett, T., Dyresan, A., Watkins, D. (2021).\* PUSHing for Storage: A Case for Repurposing Decommissioned Mines for Pumped Underground Storage Hydro (PUSH) in the United States, report to Sloan Foundation. <https://www.ketl.info/post/push-report-released>

\*Section 5, contributing author

### **Other Publications**

Ketola, Z., Lytle, W., Schelly, C., Rudnicki, M., Kelley, M. (2022). Perspectives on the social license of the forest products industry from rural Michigan, United States. WikiJournal of Science. \*Peer reviewed

### **PUBLICATIONS, IN PROGRESS**

#### **Journal Papers, In Progress**

Ketola, Z., Schelly, C., Rouleau, M., Kulheim, C. Sustainable Restoration of Ecosystem Services: The Social Acceptance of Using Genetically Improved Trees. *Society and Natural Resources*. (Accepted for Publication, pending final editing)

Rhodes, M., Hannum, K., Ketola, Z. Managing the imagined spatialities of protected sites: (un)bounding Industrial World Heritage via Mental Maps. *Annals of the American Association of Geographers*. (Revise and Resubmit)

Ketola, Z., Sidortsov, R. Social Acceptance of Sustainable Redevelopment: Reutilizing Post-Industrial Infrastructure and Its Role in Renewable Energy Adoption.

### **RESEARCH EXPERIENCE**

- 2024 – Present      *Graduate Research Assistant - Center for Research in Wind*  
Collaborated on research tasks such as the creation of survey instruments, survey analysis, and the creation of interview protocols related to the community benefits of offshore wind development in various communities along the US East Coast.  
Website: <https://crew.udel.edu/about/>
- 2023 – Present      *Graduate Research Assistant - Sustainable Places Research Group*  
Conducted research tasks, including data collection and analysis, interviews, and community meeting observation, across diverse projects related to sustainable planning and development in various communities, including projects focused on regional planning and cooperation, equity and justice, and renewable energy.  
Website: <https://sites.udel.edu/ninadavid/students-in-the-sustainable-places-research-super-group/>
- 2023                      *Graduate Research Fellow - Energy Service Security for Public Health Resilience*  
Administered and analyzed qualitative, semi-structured interviews to public health stakeholders throughout the Western Upper Peninsula of Michigan.
- 2021 – 2023              *Graduate Research Assistant – Social Implications of Genetically Improved Trees, USDA-AFRI*

Performed social acceptance literature review, conducted initial focus group among forest landowners, and designed landowner survey with project leaders and members from forestry and social sciences.

- 2022 *Graduate Research Assistant – Community geographies of the slate landscapes of Northwest Wales*  
Conducted semi-structured interviews with the public throughout Northwestern Wales to understand views on the slate UNESCO World Heritage site.
- 2019 *Undergraduate Research Project – Special Topics in Sustainable Mining*  
Performed analysis on upstream tailings dam functions, failures, and regulation under faculty advisor.
- 2019 *Undergraduate Research Assistant – PUSH, Mines for Energy Storage*  
Performed background research and calculations relevant to using decommissioned mines for hydro-pump storage.
- 2018 *Seminar in Sustainability – AutoDrive Challenge Sustainability Report*  
As a team of seven, conducted a literature review, designed, and led one of two focus groups, and assisted in design of a university survey regarding the implications of autonomous electric vehicles in rural communities.
- 2018 *Undergraduate Research Assistant – L’Anse Community Solar*  
Compiled information on possibly applicable solar tax incentives for L’Anse community solar project.

## **CONFERENCE PARTICIPATION**

### **Presentations**

- 2024 Ketola, Z., David, N., Hassanzadehkermanshahi, K., Oluoch, K. (2024). Crossing lines: Equity in a Regional Network of Comprehensive Plans. (2024). Association of Collegiate Schools of Planning 64th Annual Conference, Seattle, Washington.
- 2024 Ketola, Z., David, N., Braine, M., Hassanzadehkermanshahi, K. (2024). “Bridging” the City: Community Perspectives on Capping I-95 in Wilmington, Delaware. (2024). 2024 International Conference on Urban Affairs, New York City, New York.
- 2023 Ketola, Z., Schelly, C., Rouleau, M., Kulheim, C. (2023). Understanding Perceptions on Genetic Improvement of Tree Species Among Family Forest Owners. International Association of Society and Natural Resources Annual Conference, Portland, Maine.
- 2023 Ketola, Z., Tiwari, S., Schelly, C., Boyer-Cole, E. (2023). Energy Service Security for Public Health Resilience. World Social Science Association Annual Conference, Tempe, Arizona.

2022 Ketola, Z., Schelly, C., Rouleau, M., Kulheim, C. (2022). Social Acceptability for Genetically Improved Trees in the United States Midwest. International Association of Society and Natural Resources Annual Conference, San Jose, Costa Rica.

2022 Rhodes, M., Hannum, K., Juip, J., Juip, L., Ketola, Z., Batterson, B., Maze, T., Muefflehe, W. (2022). Scalar sustainability in UNESCO's industrial heritage: community geographies of the slate landscapes of Northwest Wales. TCCIH: Industrial Heritage Reloaded, Montréal, Quebec, Canada.

### **Panels**

2022 Understanding the Role of Sustainability in Education: The Student Perspective, International Association of Society and Natural Resources Annual Conference, June 2022 (San Jose, Costa Rica).

### **FUNDING AWARDS**

2023 – Present Unidel Distinguished Graduate Scholar Award, University of Delaware

2023 Great Lakes Research Center Student Travel Grant, Michigan Technological University

2023 Graduate Student Government Conference Presenting Grant, Michigan Technological University

2022 Research Travel Grant, Michigan Technological University Department of Social Sciences

2021 Research Travel Grant Michigan Technological University Department of Social Sciences

2020 "Social implications of genetically improved trees: Assessing public and forest owner attitudes, risk perceptions, and willingness to adopt," USDA-AFRI, Graduate Research Assistantship

### **PROFESSIONAL SERVICE**

2024 – Present *Biden School Student Association*  
Vice-President

2023 – Present *University of Delaware Climate Fellows*  
Vice-President

2021 – 2023 *Association of Students for People, Environments, and Nature*  
President

- 2021 – 2023 *International Association of Society and Natural Resources (IASNR)*  
Student Member  
Social Media Committee Instagram Liaison
- 2016 – 2023 *Society of Women Engineers*  
Member  
2019 Michigan Technological University Evening with Industry Co-Chair
- 2019 – 2020 *Michigan Department of State, Collegiate Student Advisory Task Force*  
Michigan Technological University representative
- 2017 – 2019 *American Association of University Women – Michigan, Student Advisory Council*  
Upper Peninsula representative

### **TEACHING**

- 2021 – 2022 *Learning with Academic Partners (LEAP) Leader*  
Michigan Technological University  
ENG 4905, Senior Design
- 2019 – 2020 *Learning with Academic Partners (LEAP) Leader*  
Michigan Technological University  
ENG 1505, Introduction to Systems Engineering  
ENG 2505, Low Fidelity Systems Modeling

### **ADDITIONAL PROFESSIONAL EXPERIENCE**

- 2022 *Interconnection & Incentives Intern, GreenStruxure*  
Performed energy analyses for industrial sites in 4 US states to assess microgrid potential. Completed interconnection and incentive applications for sites as required to meet state and federal requirements.  
Implemented standardization tools, such as engineering interconnection forms, to streamline application processes.
- 2020 – 2021 *Project Engineer I, Systems Control*  
Oversaw manufacturing of electrical substation control houses from project start to finish, performing state and national code and electrical reviews, material selection, and project specific support as necessary.  
Coordinated project requirements and changes with customer, manufacturing floor, and other engineering teams to ensure customer specifications and applicable codes were met.

### **CERTIFICATES**

- 2023 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Understanding and Ending Gender-Based Violence in Fieldwork

- 2023 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Reciprocity in Hazards and Disaster Research
- 2023 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Social Vulnerability and Disasters
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Broader Ethical Considerations for Hazards and Disaster Researchers
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Collecting and Sharing Perishable Data
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Conducting Emotionally Challenging Research
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Cultural Competence in Hazards and Disaster Research
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Disaster Mental Health
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | IRB Procedures and Extreme Events Research
- 2022 CONVERGE Training Module | Natural Hazards Center at University of Colorado – Boulder | Public Health Implications of Hazards and Disaster Research

**SKILLS**

ArcGIS | AutoCAD | Stella Architect | SimaPro | SPSS Statistics | JMP | VOSViewer