



Grid Resilience, Climate Change, and Resiliency to Communities



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Drs. Anita T. Morzillo, Cynnamon Dobbs, and Chandi Witharana Department of Natural Resources & the Environment, University of Connecticut **Grid resilience** is multi-faceted, and includes both powering the grid itself and broader community planning that includes energy needs and infrastructure

Planning decisions of both communities and industry also focus on long-term climate resiliency within the context of entity goals

Disconnect exists between industry and community planning related to resiliency and energy infrastructure



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Goal: Assess the integration of grid resilience with community climate and resiliency goals

Objectives

1. Evaluate ecosystem services influenced and enhanced by roadside vegetation management practices

2. Explore town-level strategies for grid resilience among other resiliency and planning goals (e.g., climate, carbon, heat)



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Research Approach

Three data components

- 1. Remote sensing proximity pixels
- 2. Ecosystem services: carbon, thermal change
- 3. Social science

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Models of roadside tree metrics for trees removed or those with potential for removal based on proximity pixels

Integrate Lidar and ecosystem services models to develop carbon and thermal change estimation map for proximity pixels

Integrated knowledge for communicating alignment of community resiliency planning and grid resiliency goals



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