Sustainable and Resilient Communities
Table Topic

Moderators: Liz Weber, Liz Ross
JISEA Annual Meeting
April 14, 2022
Table Topic: Sustainable and Resilient Communities

<table>
<thead>
<tr>
<th>Liz Weber</th>
<th>Liz Ross</th>
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<tbody>
<tr>
<td>Project Manager and Analyst in NREL’s Energy Security &amp; Resilience Center and in JISEA</td>
<td>Intern for JISEA’s Sustainable Communities Catalyzer; PhD candidate in psychology at Colorado State University</td>
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Characteristics of Resilience: How communities are improving the resilience of their energy systems
Two case studies funded by the Colorado Department of Agriculture and the Colorado Energy Office highlight the diversity of approaches to saving energy, reducing environmental impact, and improving the energy economics for Colorado farms.

Generate renewable biogas while addressing environmental concerns at a Colorado dairy

Save & generate energy by incorporating solar technologies in greenhouse design
JISEA’s Sustainable Communities Catalyzer

Advance understanding of social, economic, environmental, and land use impacts of clean energy transition and map pathways for sustainable, equitable transitions, with a focus on rural and disadvantaged communities.
Lead PI: Megan Day, NREL

Project 1: Intersecting disadvantaged community (DAC) metrics with renewable energy (RE) deployment potential metrics

• Products:
  • **Data set** published in NREL’s Data Catalog ([https://data.nrel.gov/submissions/175](https://data.nrel.gov/submissions/175))
  • **Paper** describing initial analyses published in Renewable Energy Focus Journal ([https://doi.org/10.1016/j.ref.2022.02.002](https://doi.org/10.1016/j.ref.2022.02.002))

• Snapshot of results:
  • Identified broad patterns by correlating RE metrics with DAC metrics
  • Communities can identify their relative need and potential for RE development
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Project 2: Best practices and lessons learned in NREL’s work with communities

• Communities increasingly need technical expertise and assistance in managing the energy transition at the local level
• We compiled recommendations developed by synthesizing interviews and a literature review, intended to inform and coordinate NREL’s clean energy planning work and to support others in this space
Thank you

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