**U.S. Department of Energy (DOE)  
Clean Energy to Communities (C2C) Program**

Summary of Technical Assistance (TA) Support

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| Icon  Description automatically generatedBuildings |
| Icon  Description automatically generatedClean Power |
| Climate Mitigation and Resilience |
| Cross-Sectoral Justice |
| A picture containing text, clipart  Description automatically generatedJobs and Economic Development |
| Icon  Description automatically generatedMobility |

**Stowe, Vermont**

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From April through September 2023, the National Renewable Energy Laboratory (NREL) and Oak Ridge National Laboratory (ORNL) provided technical input on smart grid baseline creation, best practices on increasing clean energy participation in disadvantaged and low-income households, and potential funding opportunities to support the utility’s efforts.

 Impact

This technical assistance effort equipped the utility with technically sound best practices to inform near-term utility program design and grid modernization efforts. The utility representative stated that this experience “provides staff the opportunity to work directly with experts and work through thought experiments, rather than rely on answers from consultants that might not be directed to the utility and doesn’t enable staff to learn.”

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**Background**

Ann Arbor is a city of approximately 122,000 people located in southeast Michigan. The city and its residents are leaders in sustainability and climate action. Their A2ZERO Climate Action Plan outlines their just transition pathway to community-wide carbon neutrality by 2030. With equity as a focus, they are implementing strategies to improve home energy efficiency (EE) and electrify appliances. Toward this, the city wants to explore community geothermal heating and cooling to serve a variety of building types including rental and affordable housing. The city has applied to DOE’s Geothermal Heating and Cooling Design and Deployment program and garnered the support of City Council to pursue these projects, but they need to understand the concept’s feasibility in order to make a “go, no-go” decision.

Stowe Electric is a small utility located in the village of Moscow and serves the broader Stowe area in Vermont. It serves ~4,600 residential and commercial customers. The utility is interested in leveraging the Inflation Reduction Act and other funding to upgrade its grid infrastructure and reduce the energy burden of its low-income customers. Currently, Vermont state regulators are requiring a fully mapped electrical system, including defining a load-shedding scheme. To that end, Stowe Electric needs to enhance its baseline grid infrastructure, including deployment of situational awareness methods like a supervisory control and data acquisition system and distribution management system to help monitor, gather, and process real-time data, especially for grid insight and generation asset management. The utility was also interested in creating a process for low-income customers to benefit from solar and hydroelectric generation, possibly through a beneficial Community Solar Green Tariff program.

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Description automatically generated with low confidence Expert Match Team

**Sika Gadzanku**  
Community Lead, Main Expert Match Point of Contact and Overall Program Manager, NREL

**Rory Mcllmoil**  
Grid Planning and Analysis Engineer, NREL

**Neil Shepard**  
Energy Systems Integration Technical Staff, ORNL

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**Michael Lazorchak**  
Regulatory Affairs

For more information, visit:  
**energy.gov/eere/clean-energy-communities-program**

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