

MMWEC Teams Up with UMass Energy Transition Institute on Innovative Grid Design

The UMass Energy Transition Institute (ETI) has been awarded a grant from the American Public Power Association (APPA) to launch Project Groundwork, a research initiative to explore innovative electric distribution solutions to enhance grid resilience and support an equitable energy transition. ETI is partnering on the effort with Groundwork Data, a non-profit research initiative focused on public infrastructure, as well as the Massachusetts Municipal Wholesale Electric Company (MMWEC), the joint action agency for municipal utilities in the Commonwealth.

Project Groundwork will evaluate the costs and benefits of undergrounding electric distribution infrastructure in an age of climate disruption and rapid electrification. The research will specifically look at the potential benefits to municipal utilities of deploying optical fiber broadband networks in combination with underground electric cabling to help bridge the digital divide.

“Municipal utilities have a hundred-plus year track record of operational excellence as evidenced through providing the most affordable and reliable services across the country,” said Christopher Roy, General Manager of Shrewsbury Electric and Cable Operations (SELCO) and a board member of APPA’s Demonstration of Energy and Efficiency Developments (DEED) program, which awarded the grant. “Continuing to lead means supporting innovative initiatives like Project Groundwork that will help us plan for the grid of the future and further our mission of building strong, resilient communities.

“We’re really excited to be launching this project,” said Anna Goldstein, Executive Director of the Energy Transition Institute at UMass Amherst. “ETI was created to enable a rapid and equitable energy transition through cross-disciplinary research and community engagement, and this project team is a perfect example of that.”

The UMass research team will be led by Professors Jay Taneja, Assistant Professor of Electrical and Computer Engineering, and Jimi Oke, Assistant Professor of Civil and Environmental Engineering. Groundwork Data is led by Mike Bloomberg, most recently the Urban Technology Researcher for the Jacobs-Technion Cornell Institute, and formerly the Chief of Staff to Holyoke Mayor Alex Morse.

“We’ve found that much of the existing research on undergrounding is concerned with the costs of trenching, and that there is little disagreement on the overall resiliency benefits,” said Bloomberg of Groundwork Data. “We aim to pick up where these studies have left off by taking into account a greater number of costs and benefits associated with undergrounding. Cities are complex systems and there are dozens, if not hundreds, of other factors that must be taken into account with projects of this scale and importance.”

The project was awarded a DEED grant of \$123,198 from APPA to develop an initial cost-benefit model. The grant was made possible through an ETI and Groundwork partnership with MMWEC, a non-profit, public corporation and political subdivision of the Commonwealth, which provides services, expertise, and strategic vision for 20 municipal utility members and 28 municipal utility project participants in Massachusetts.

“MMWEC is pleased to support this effort to better inform municipal utilities on the feasibility of undergrounding in their specific communities,” said MMWEC Chief Executive Officer Ronald C. DeCurzio. “The model being developed by the research team is expected to benefit municipal utilities across the country.”

About the Energy Transition Institute: The University of Massachusetts Amherst is advancing cutting-edge, stakeholder-engaged research at the intersection of energy technology and equity through its new Energy Transition Institute (ETI). ETI researchers are building on the depth of expertise across campus on issues of energy, sustainability, and equity to create new knowledge and enable a fast and fair US energy transition. For more information, visit <https://www.energytransitionumass.org/> or contact eti@umass.edu.

About Groundwork Data: Groundwork Data is a non-profit research initiative led by Mike Bloomberg with the aim of driving innovation in the field of public infrastructure management and development. Mike is the Public Infrastructure Fellow at [NewCities](#), a global non-profit committed to shaping a better urban future.