

Extension Project: Building Energy

Project Leader: Ben Weil

Initiative Overview

The Building Energy Extension Program conveys current energy efficiency, renewable energy, and building science information to stakeholders including those in the building trades, design professionals, state government agencies, and building owners and occupants through workshops, web publication, and consulting. Applied research in building energy systems and is conducted to respond to perceived stakeholder need.

Activity Summary – 2017

- Western Mass Green Consortium Green Night Series (23)
- Grant Development – Greening the Gateway Cities (1)
- 3rd Annual MA Clean Energy Conference (1)
- Energy Assessments for Green Communities Grants or Designations Through Clean Energy Corps (25)
- Development of Energy Use Data Regression Analysis Tool (1)
- Workshop - How Did Seven GREEN COMMUNITIES Do It? (1)
- Workshop -Energy Storage – Beyond Batteries (1)
- Workshop - Energy Efficient Buildings and Climate Zones (1)
- Workshop - Cutting Edge Technologies and High Performance Retrofits: From Powerwalls to Superwindows and Appliances in Between (1)
- Workshop - Sustainable Building driven by Ecological Footprint Analysis (1)
- Workshop - 100% Renewable Energy in New England: How We Can All Help Power a Resilient Electric Grid (1)

Total educational contacts

	Adult Contacts
In Person	839
Indirect Contacts (Print, Web, etc...)	105939

Narrative Summary

Building the UMass Clean Energy Corps and running it with internships in Fall and Summer and as a fully developed course in the Spring, has enabled me to provide high-quality service and energy analysis to more organizations and in more locations than before. In the past year, we have helped 26 municipalities apply for Green Community status or develop specific plans to spend Green Communities grant funds to reduce their energy consumption by 20% or more. Additionally, we have helped two regional school districts serving 9 communities with specific plans to reduce energy use and plan for resiliency.

The Green Night educational events I organized with WMGC are heavily attended by builders, and others in the trades related to high performance building. The information shared is high-quality well-targeted education extending work done at UMass by many of my colleagues and by me. This is part of a broader extension agenda of increasing the familiarity of practitioners with the techniques and strategies necessary to improve the energy efficiency of buildings generally and to pursue net-zero energy building in particular. This is also a good venue through which to update community members about relevant policy debates.

The Clean Energy Extension hosted its 3rd Annual MA Clean Energy Conference on September 22 at the Beechwood Hotel in Worcester. The Conference provided four sessions with varied topics applicable to towns, and a vendor room with related technologies and programs. Conference was attended by 92 people.

As with most extension programs, applied research opportunities grow out of interactions with practitioners and stakeholders. One example of this is the ongoing development of rapid energy assessment tools using energy data and weather data to provide much more detailed and predictive analysis than has been previously available without site visits and deployment of specialized cataloging sensors. Initially developed to be used by Clean Energy Corps students, the software is intended to be re-fined and offered as a product to other professionals.

Collaborating Organizations

- **Massachusetts Department of Energy Resources**
- **Massachusetts Department of Conservation and Recreation**
- **Pioneer Valley Habitat for Humanity**
- **Town of Goshen**
- **Town of Rowe**
- **Town of Erving**
- **Town of Orange**
- **Northfield Energy Committee**
- **Pelham Energy Committee**
- **Ware Green Community Committee**
- **Boston Planning and Development Agency**
- **City of Northampton**
- **City of Pittsfield**

