

Faculty Name:

Bianca Howard

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Lab:

Building Energy Research Laboratory

Project Title:

Quantifying the energy flexibility of buildings

Description:

Enabling electrified buildings to change when they consume energy is important to the transition to net-zero energy systems as they enable more renewable energy to be used. Electrified heating and cooling systems are especially interesting as the building thermal inertia and the variety of methods for supplying heating and cooling provide opportunities to change electricity consumption with minimal impact on occupants. However, the energy flexibility potential of buildings has yet to be quantified as it depends on a variety of factors such as the building construction, HVAC systems and implemented control strategies. The research position will determine the effect of various factors on building energy flexibility. The project will use the Modelica Buildings Library to develop detailed models of buildings and their HVAC systems and systematically explore the energy flexibility of buildings across seasons.

Location of Research:

Hybrid (both Remote and On Site)

of hrs/week:

40

Department/Program:

Mechanical Engineering

Eligibility:

MS

To apply, please contact:

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