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**Poster Title:** Developing end-use load profiles for the U.S. building stock

**Abstract:** The U.S. Department of Energy's Building Technologies Office is funding a 3-year research effort to produce updated end-use load profiles for the entire U.S. building stock. Researchers from three national laboratories are collaborating with industry partners to collect and evaluate end-use and whole building load profile data from a wide range of existing sources. Critical gaps will be addressed with additional data collection and disaggregation techniques. Ultimately, the data will be used to calibrate national-scale building stock models and produce hourly end-use load profiles at both aggregate (average) and individual (typical) building scales, for regions and building types across the U.S. building stock. Most importantly, the models can subsequently be used to generate time-of-savings shapes for both existing and emerging energy efficiency and demand response technologies.

This poster will highlight the various applications of end-use load profiles, available data sources, and critical gaps. The evaluation community will learn about what to expect from this new effort to understand load shapes and how big data and data science will be applied to the problem.