Peak Power Profiling
Data Driven Customer Segmentation for Reducing Peak Power Energy Consumption
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Objectives
- Use data to better understand heating practices and energy consumption
- Develop an understanding of how to leverage data to segment customers
- Provide benchmarking and communication tools to influence customer behavior based on the shared attributes of each segment

Boone, NC
Town Area: 6.07 square miles
Population: 18,560
Median Household income: $24,140
Median Household value: $124,773

Initial Data Combination
- Segment NRLP customers based on building characteristics such as heating systems, year built, and square footage in addition to individual demographics

Household Income

Age Distribution

Willingness To Pay (WTP)
Across all age groups and income levels, NRLP customers are willing to pay, on average, 10% more for electricity that comes from renewable energy sources

Moving Forward
The next steps for this project include:
- Adding historical consumption data for each meter to the combined NRLP and ToB data set
- Building analytical models to predict individual household power consumption based on building characteristics and weather data
- Using the customer survey responses to develop a customer outreach program

Contact Information
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