

CADMUS



# Baseline Housing Study Update

April 16, 2019



# Objectives



Characterize home envelope and building mechanical efficiency

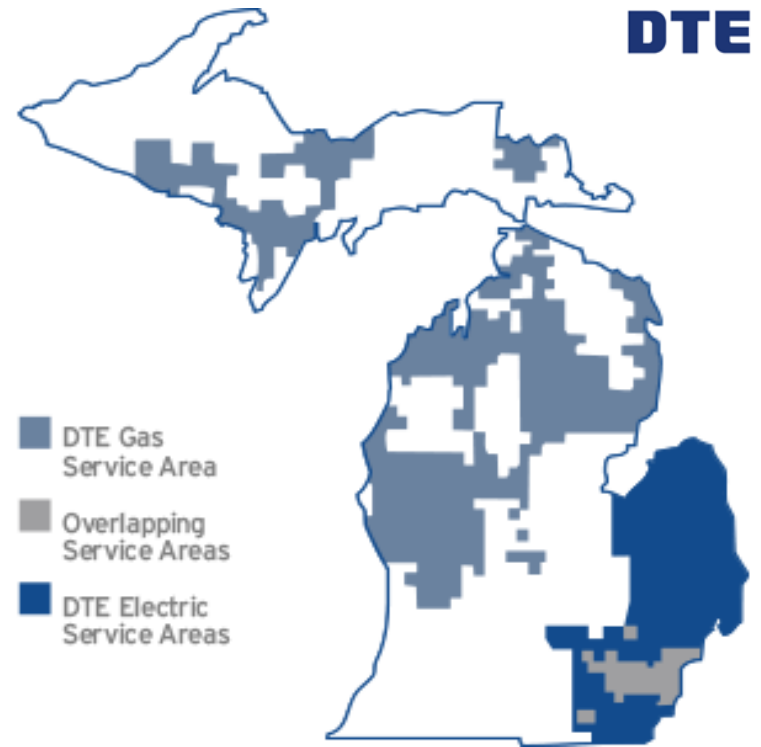
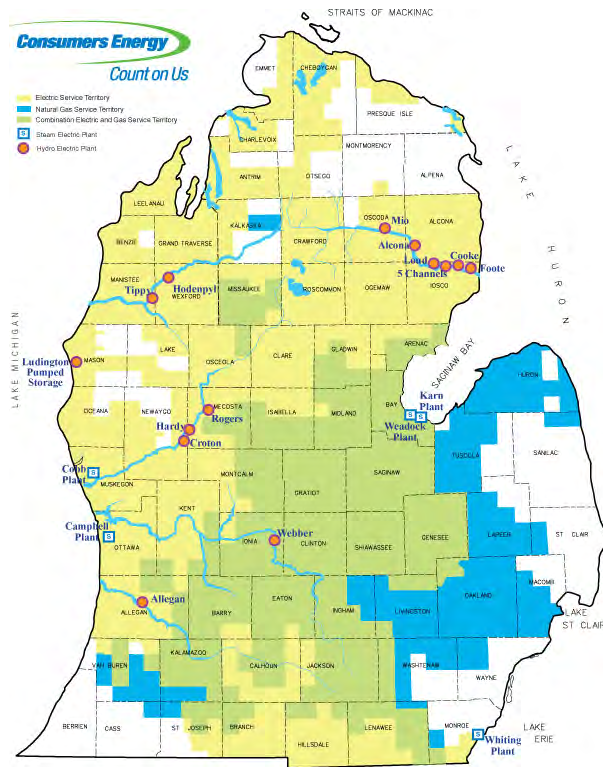


Determine commonality across weather zones, home type, home ownership and income



Summarize results and recommend modification to measure parameters and home classifications for residential weather sensitive measures in MEMD

# Sponsors





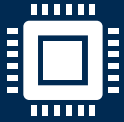
# Data Collection

## Arkenstone Tablet Tool

The screenshot shows a tablet application interface for data collection. The top navigation bar is blue and contains a home icon, a 'To Facilities' button, 'Elements Created: 4', 'Home', and 'Dwelling Exterior' text. On the right side of the top bar are icons for adding a new element and a camera. The main content area is divided into two columns. The left column is a sidebar with a blue '+ ADD NEW ELEMENT' button at the top. Below it are four categories: 'Dwelling Above Grade Walls' (0 / 10 Collected), 'Dwelling Doors' (0 / 7 Collected), 'Dwelling Foundation' (0 / 2 Collected), and 'Dwelling Overview'. Each category has a corresponding data entry box. The right column displays a list of data points for the 'Dwelling Exterior' category, each with a green value bar. The data points are: 'Is this dwelling in a single or multi-family house?' (Single-Family), 'Total exposed perimeter of dwelling unit, in ft' (125), 'Dwelling unit total height, in ft' (16), 'Total area (footprint) of dwelling unit, in sq ft' (2,541), 'Area of conditioned space only, in sq ft' (2,541), 'Area of unconditioned space only, in sq ft' (0), and 'Is there a garage?' (Yes).

Category	Item	Value
Dwelling Exterior	Is this dwelling in a single or multi-family house?	Single-Family
	Total exposed perimeter of dwelling unit, in ft	125
	Dwelling unit total height, in ft	16
	Total area (footprint) of dwelling unit, in sq ft	2,541
	Area of conditioned space only, in sq ft	2,541
	Area of unconditioned space only, in sq ft	0
	Is there a garage?	Yes

# Methods



On-site data collection with temperature monitoring



Regression modeling of participant usage data



Weighting results to population and sample

# Baseline Housing Pilot Update



Study pilot phase launched. Targeting 20 homes in the pilot. Pilot will provide early feedback on field findings and allow Cadmus to refine data collection tools and methods.



Pilot study is sampling 20 customers in climate zone 5 (southern half of the lower peninsula)



Finalizing tablet based data collection tool.



Safety training complete. Finalizing training protocols and methods. Field staff training May 14.

# Pilot Phase Schedule

Finalize tools, methods, and procedures. Sampling. Begin recruitment.

April

Analyze and summarize data

June

May

July

Conduct 20 site visits

Communicate pilot findings, recommendations, and improvements

2019

# Main Phase Schedule

