

2009 CERTs Conference



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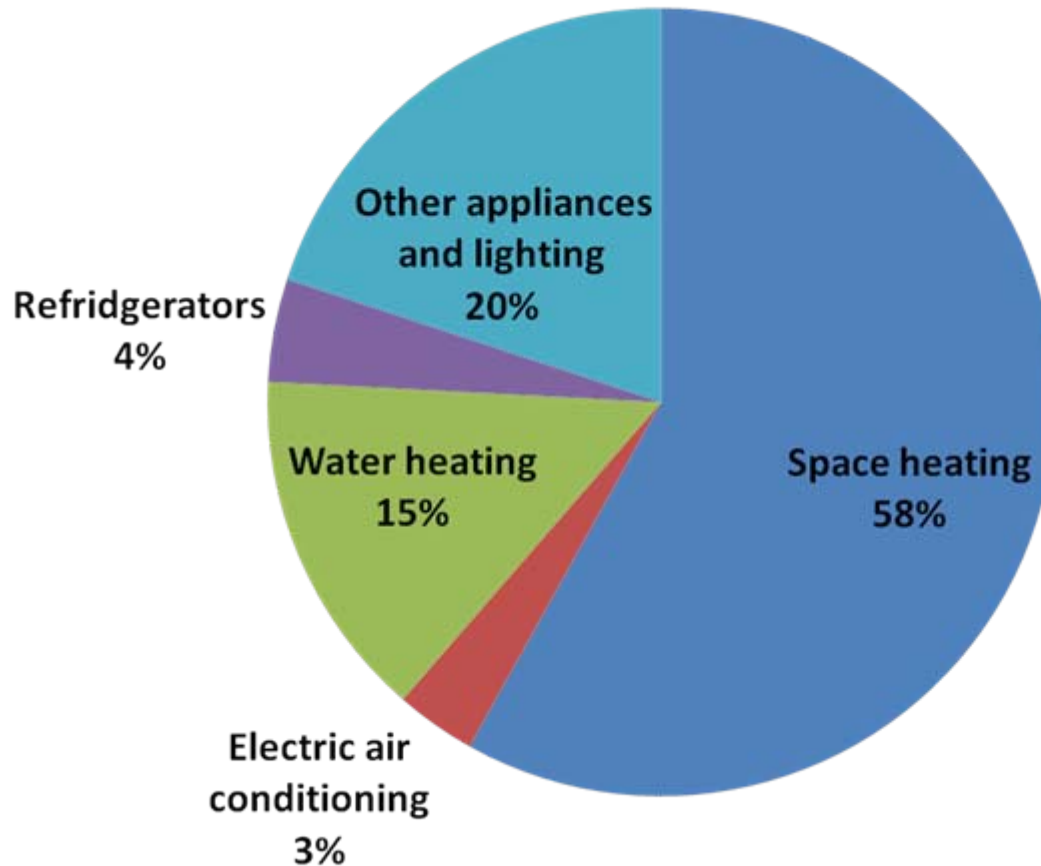
Accelerating Residential Energy Efficiency:
An Introduction

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Overview

- Sources of residential energy demand
- Challenges of achieving residential energy efficiency
- Key drivers for recent resurgence in interest
- Characteristics of successful approaches

Residential energy use



Source: US DOE EIA 2001 Residential Energy Consumption Study (cold climate dataset)

Note: Not including transportation

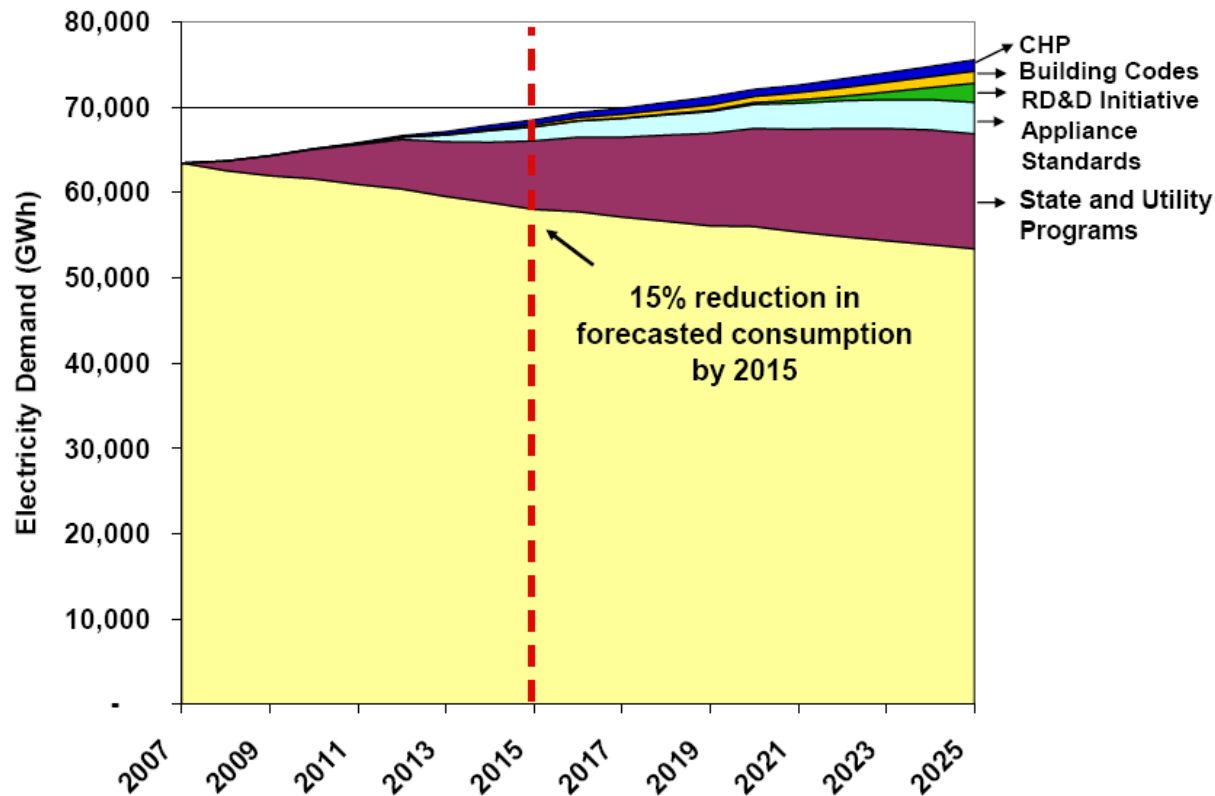
Challenges in achieving savings in residential sector

- High transaction costs.
- Individual consumer behavior plays a large role in household energy consumption.
- Information and logistical barriers to decision-making process.
- Factors other than economics are primary in consumer decision-making.
- Financial barriers.

Key drivers in resurgence of interest

- Increasing interest in energy/climate issues
- Increasing energy costs
- Minnesota's 1.5 percent savings goal

Energy Efficiency: fastest & cheapest way to achieve carbon reductions AND create jobs

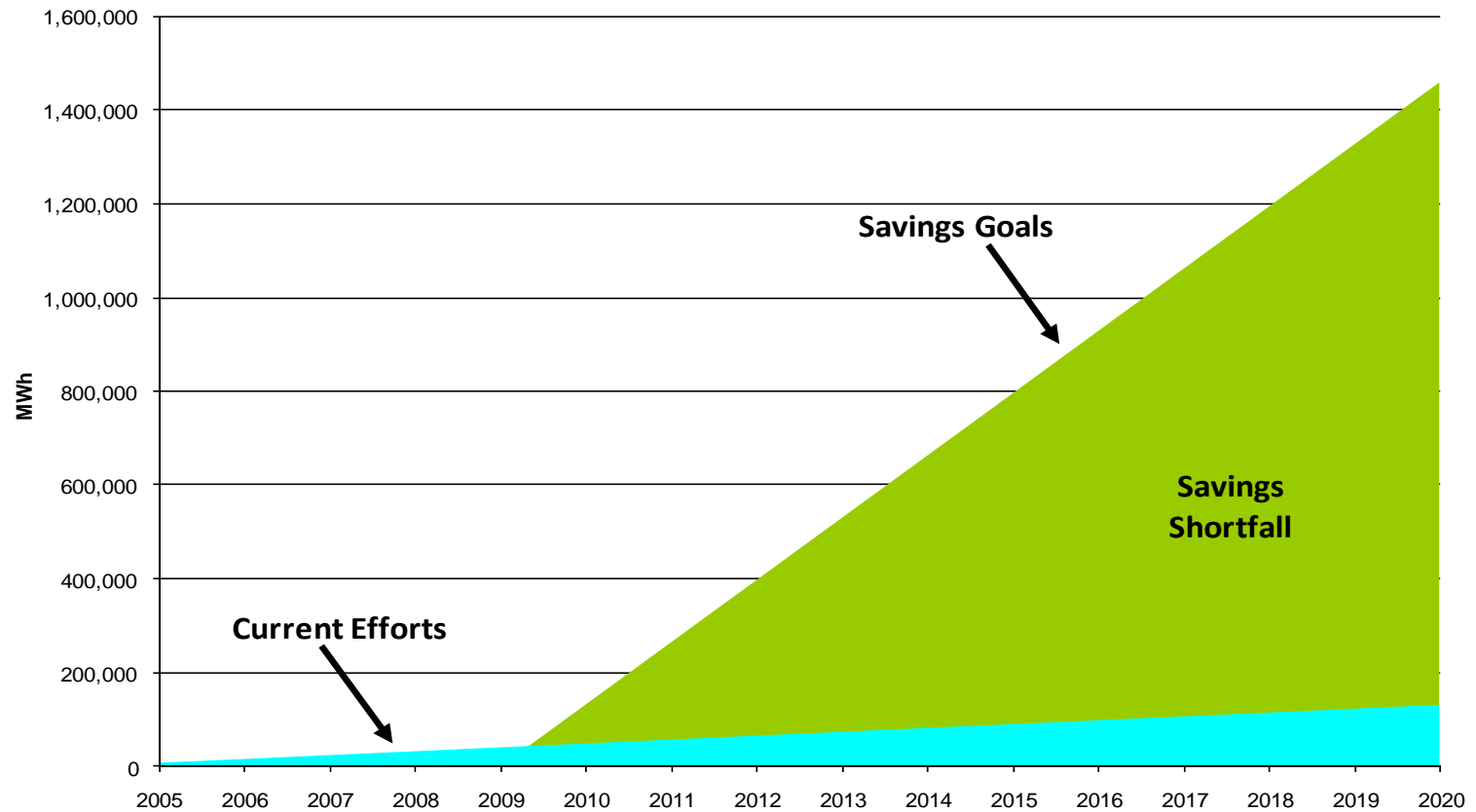


Source: ACEEE 2008 Study of Maryland Energy Efficiency Potential

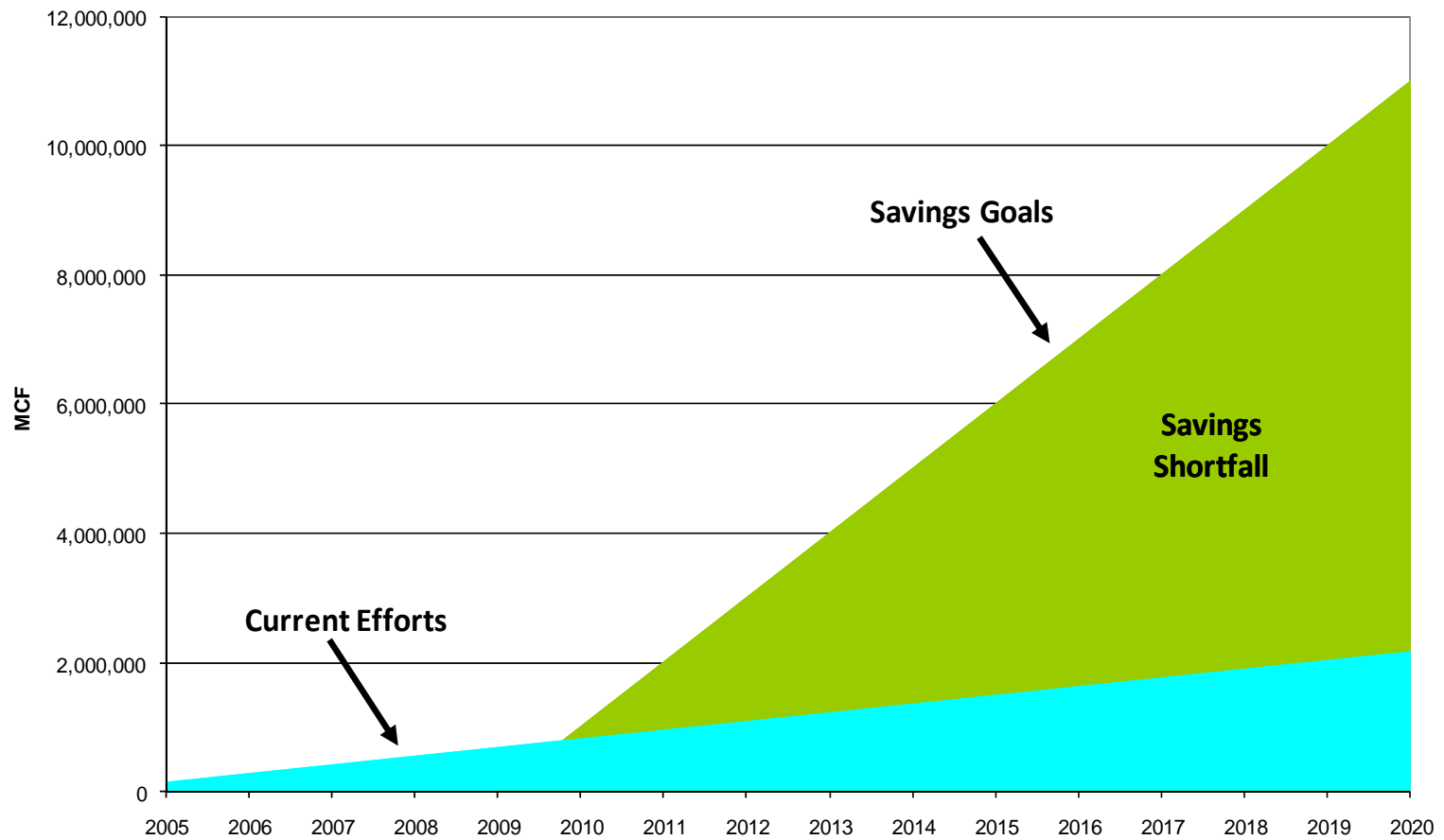
Minnesota's 1.5% EE goal

- Requires all utilities to run conservation programs that will reduce demand by 1.5 percent per year (every year)
- Applies to both gas and electric utilities
- Currently, conservation programs achieve about 0.6 percent savings, so efforts will need to more than double
- Currently over 90% of savings is in commercial and industrial sector

Current residential EE efforts vs. state goals: Electricity



Current residential EE efforts vs. state goals: Gas



Characteristics of successful approaches

- Address behavioral as well as technology replacement issues
 - Historically this is not been a generally accepted approach – hard to measure
- Oriented towards actions that are simple and achieve energy savings
- Provide efficient delivery of services
- Find new ways to reach customers

Questions?