



# Residential Behavior

CRAC Webinar  
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## Recap of Last CRAC Mtng

- Savings from Home Energy Report programs around 1.5% of load, and have been found to persist, with ~20% annual decay
- Component of savings is unknown, and uncertainty about long-term (20 year) persistence
- Implementing regional-scale HER programs would be challenging



## New Proposal

- Tie savings to tangible physical measures not counted elsewhere in conservation potential
- Home Energy Report programs are a one means to improve controls, which are not yet counted - e.g.,
  - Reduced lighting hours of use
  - Temperature setback during vacations
  - Water heater temperature setback
- Estimate savings from control measures, and include as single measure with periodic re-purchase required for persistence
- Likely savings from these will become more automated in future from advanced control technologies
- Re-name as 'control optimization programs'

## Estimate of Savings

- **Lighting: Reduction in HOU hours by 0.1/day**
  - Saves ~26 kWh/yr if all LED
- **HVAC schedule: Turn down thermostat during two weekends/year**
  - Saves ~13 kWh/yr (across all customers, accounting for saturation of electric ducted heating)
- **Reduce setpoint of water heater: Reduce from 128°F to 120°F**
  - Saves 133 kWh/yr (across all customers, accounting for saturation of electric water heat)



Total Savings: 172 kWh/yr per customer

## Cost/Measure Life

- Use HER programs as proxy for cost and measure life parameters
  - Assume 5-year program cycle, 3 years on, 2 years off
  - What is approximate cost per customer if 30-50k customers?
    - Propose:  $\$11/\text{customer}/\text{year} * 3 \text{ years} = \$33/\text{customer}$
- Recognize in future, these savings may be captured by controls