



Wasted Energy Study
Results

Presented to SAG by Chris Vaughn and Steve Grzenia

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Study Overview

- Identify and estimate natural gas waste behaviors and potential savings for Nicor Gas customers who are renters.
- Further, estimate wasted energy savings potential across entire Nicor Gas territory.
- Identify program strategies to reduce natural gas waste through behavior modification.
- A mixture of primary and secondary research. Primary research conducted by Forward Curve, LLC on renter market segment.

Data Collection

- Online surveys (1,321 completed). 4.3% response rate.
- Direct mailing to approximately 5,000 customers identified as renters.
 - 2% return rate.
- Primary data
 - Population demographics (income, owner vs renter, etc.)
 - Technology ownership (space heating, water heating, T-stats, etc.)
 - Equipment use (cold water wash, t-stat setback)
- Secondary research.
 - North Shore Gas/ Peoples Gas wasted energy and potential studies
 - Nicor Gas potential study from 2010
 - Nicor Gas customer intelligence system (energyENGINE) data mining.

Survey Process

- Study conducted by The Forward Curve, LLC in partnership with the Center for Energy and Environment (CEE)
- Targets
 - Single-family and multi-family renters
 - Pays monthly bill or landlord pays bill
- Online survey invite
 - 15k Single-family
 - 15k Multi-family
- 5k non-customer renters sent a mailed invite

Measures Researched

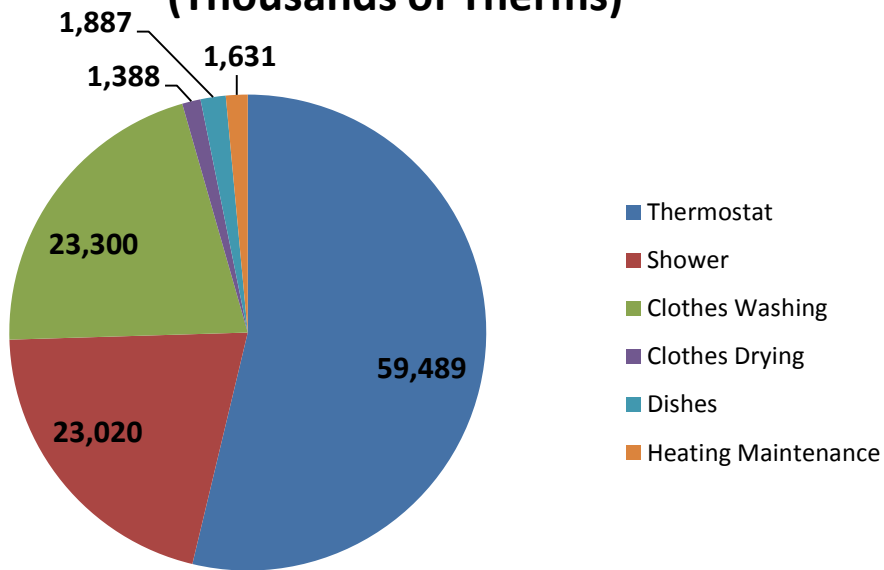
- Thermostat setback
- Shower time reduction
- Heating system maintenance
- Clothes washing temperature
- Clothes drying
- Dishwashing

Findings (Technical Potential)

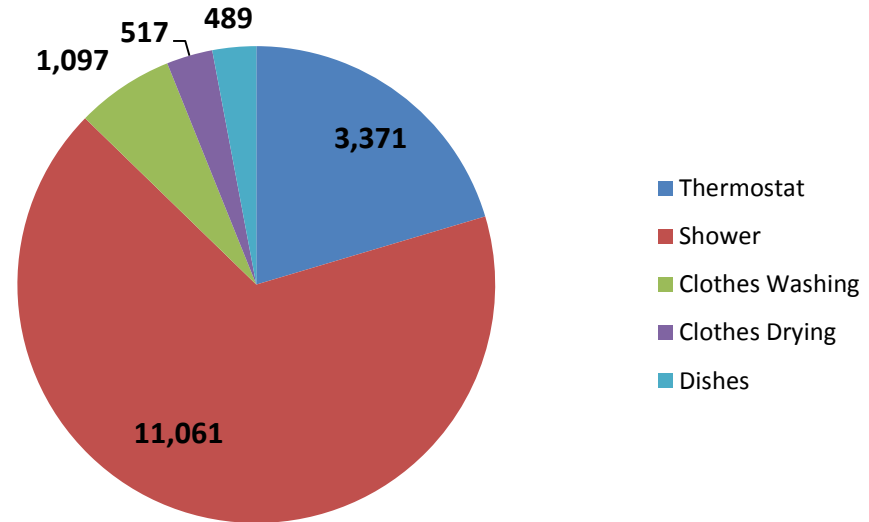
Therms (Millions)	Potential	% of Total Sales
Renters	17	5.5%
Home owners	111	4.9%
Total	127	5.0%

Findings, by End Use

Nicor Gas Potential (Thousands of Therms)



Nicor Gas Potential - Renters (Thousands of Therms)



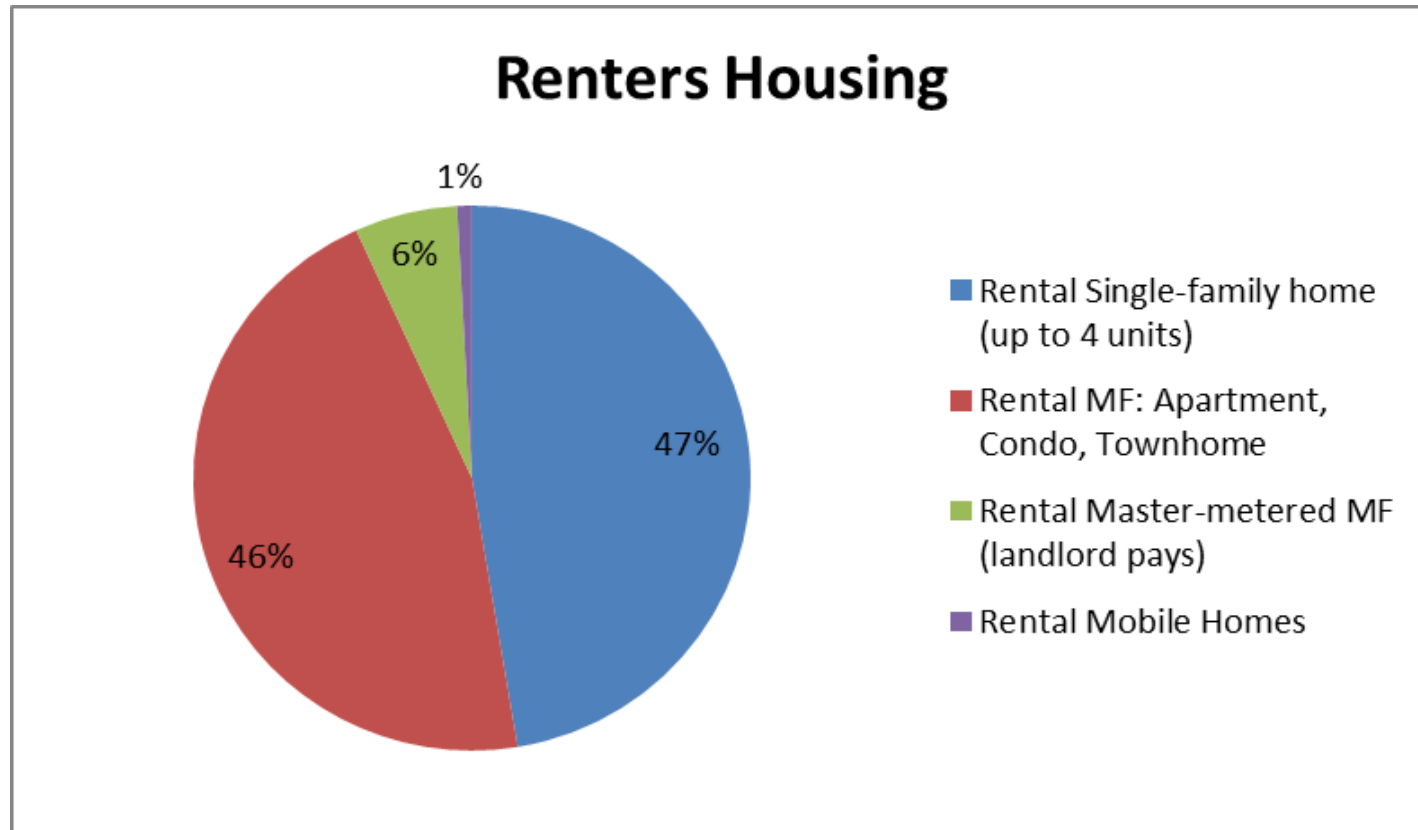
Focus of Our Study



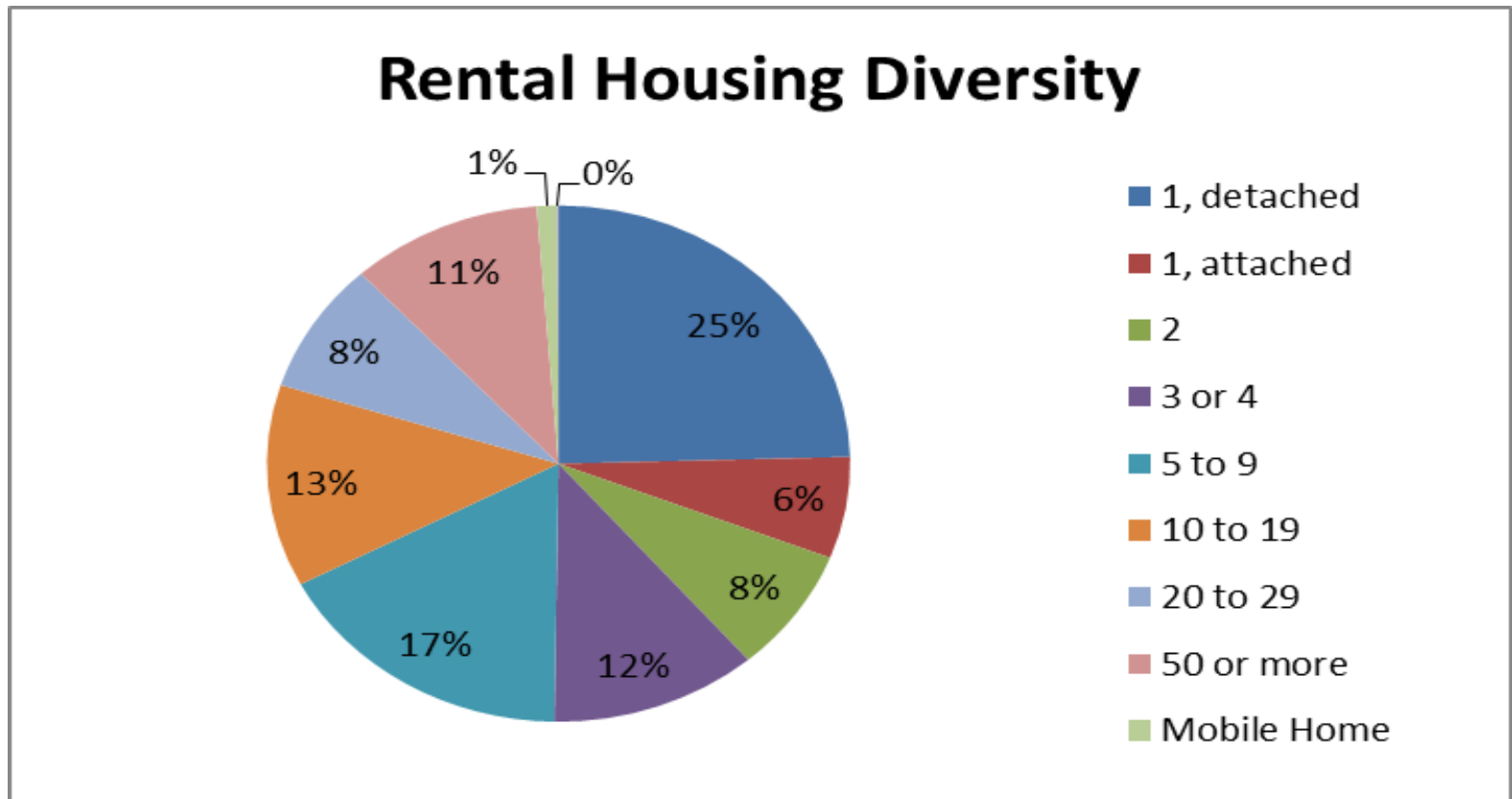
- Renter market
- Traditionally underserved
- Not many opportunities for capital investment

Renter Market Demographics

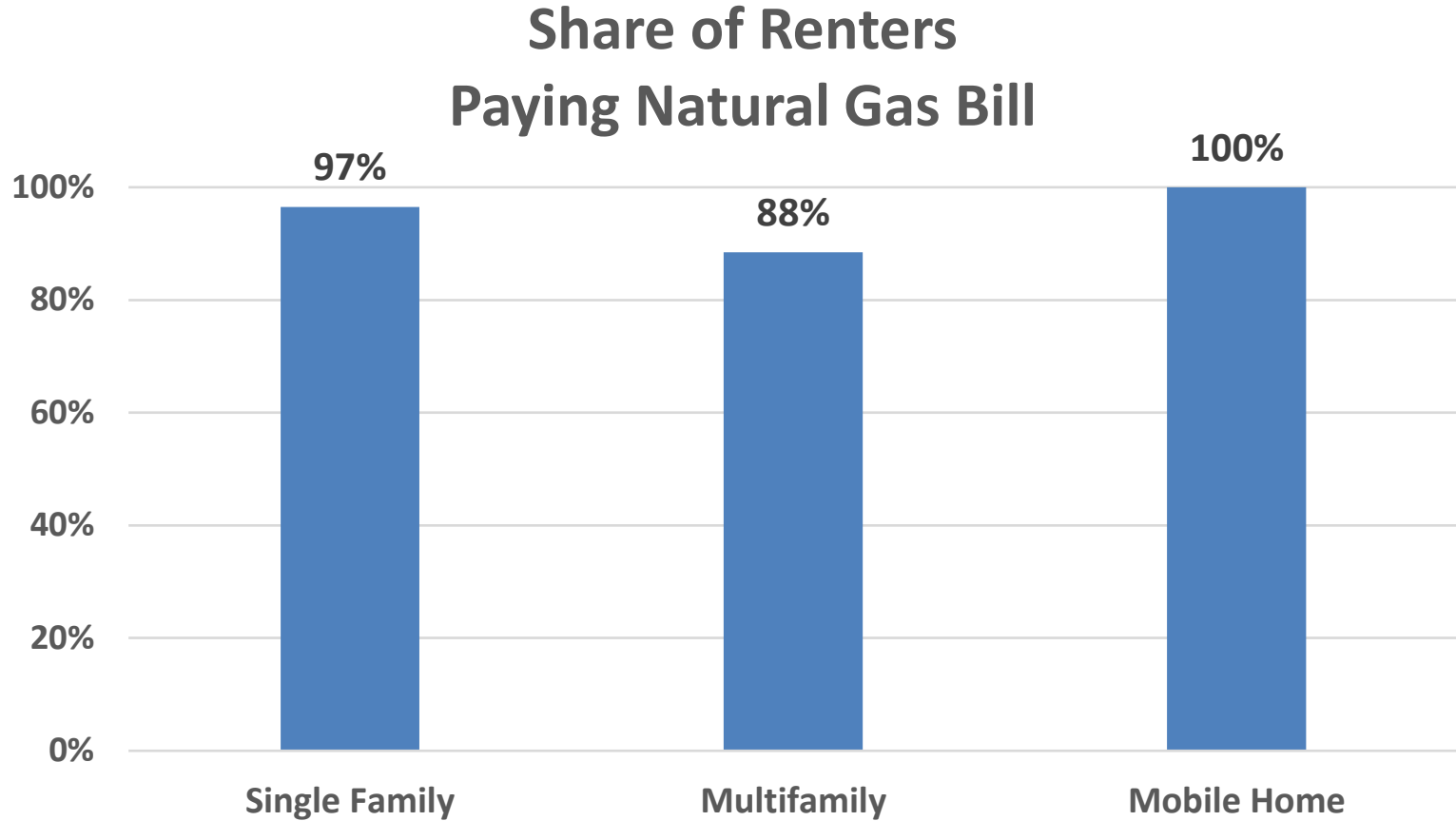
Housing Choices



Renter Market Demographics

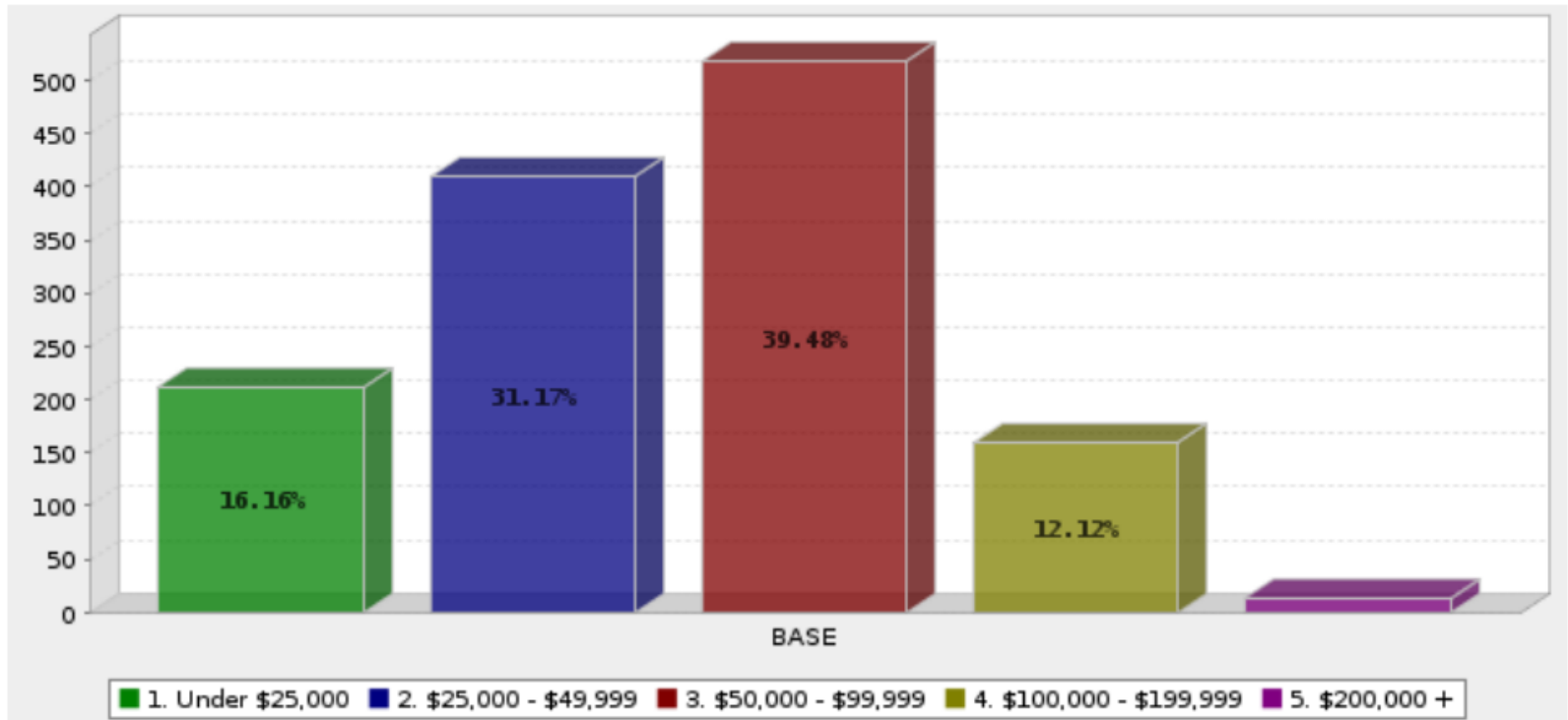


Renter Market Demographics



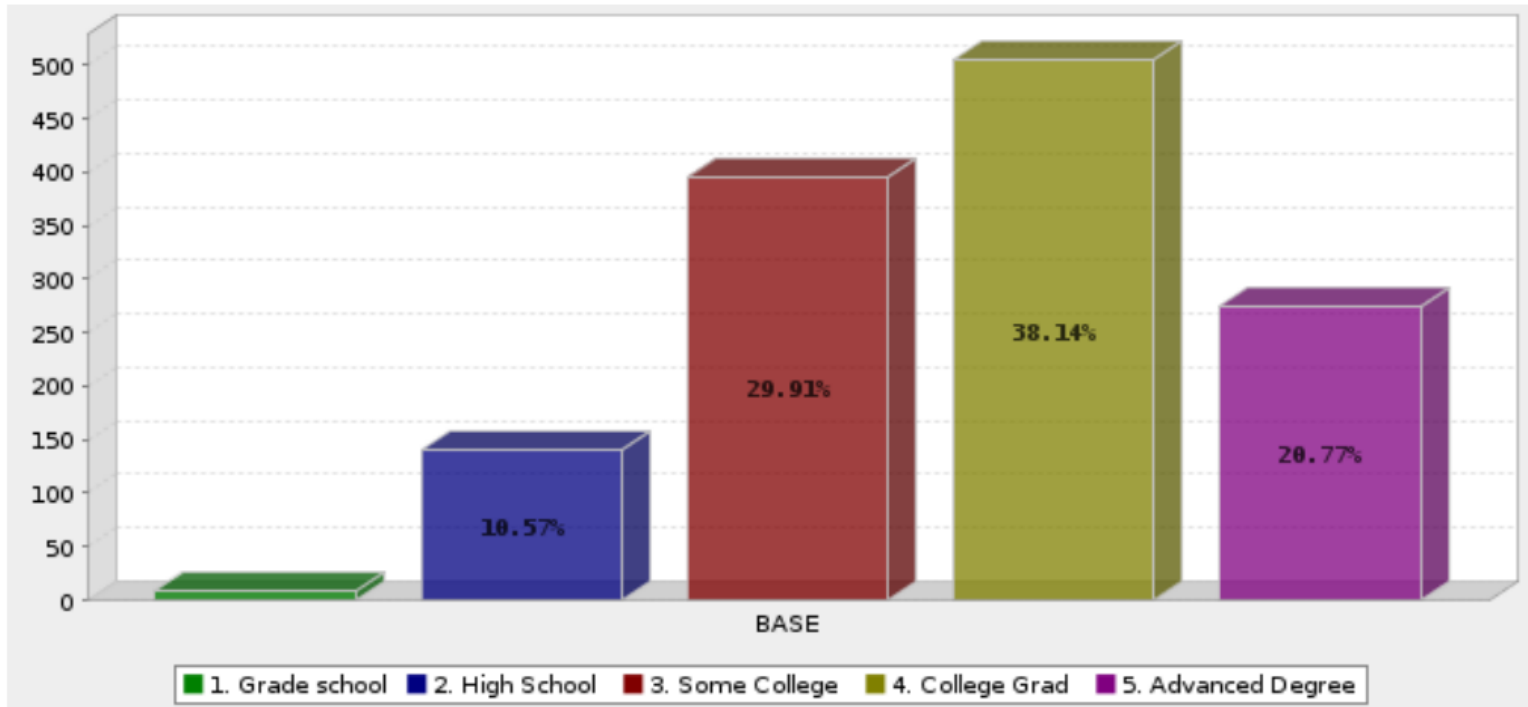
Renter Market Demographics

Income Level



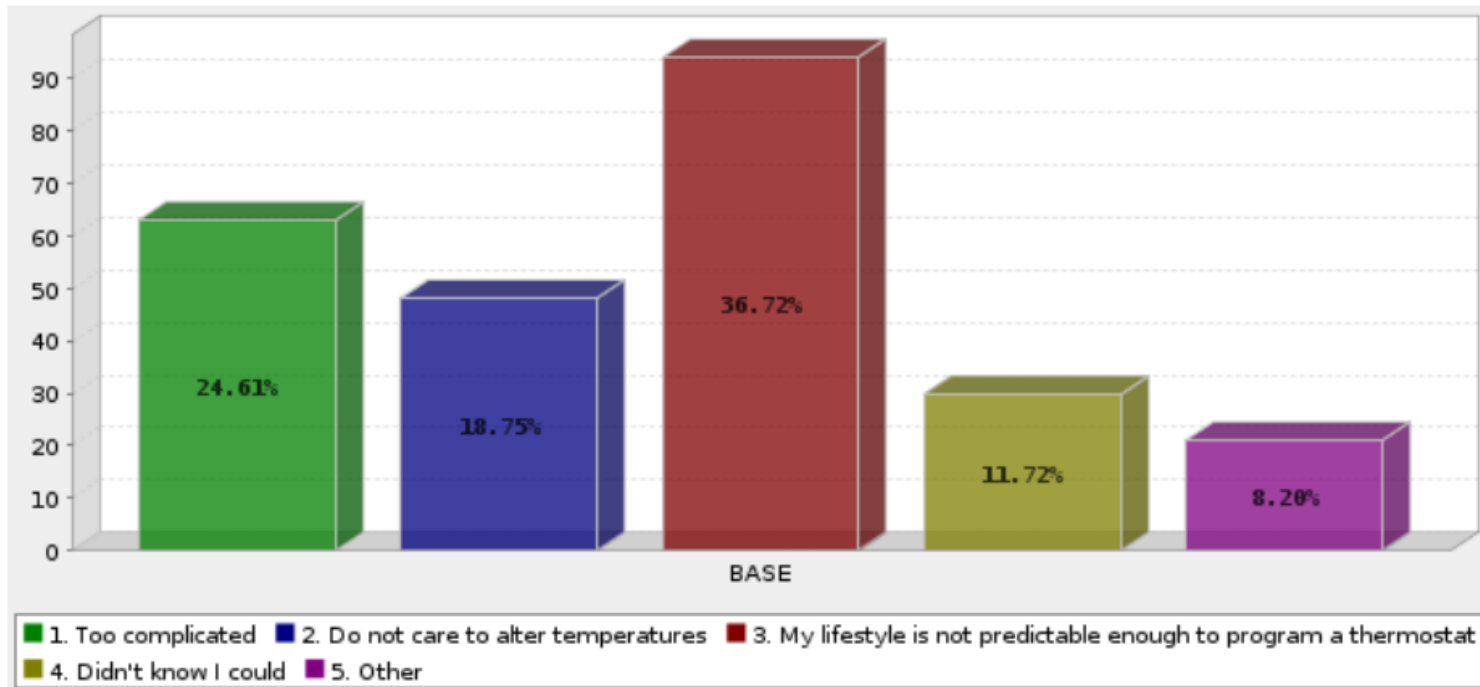
Renter Market Demographics

Education



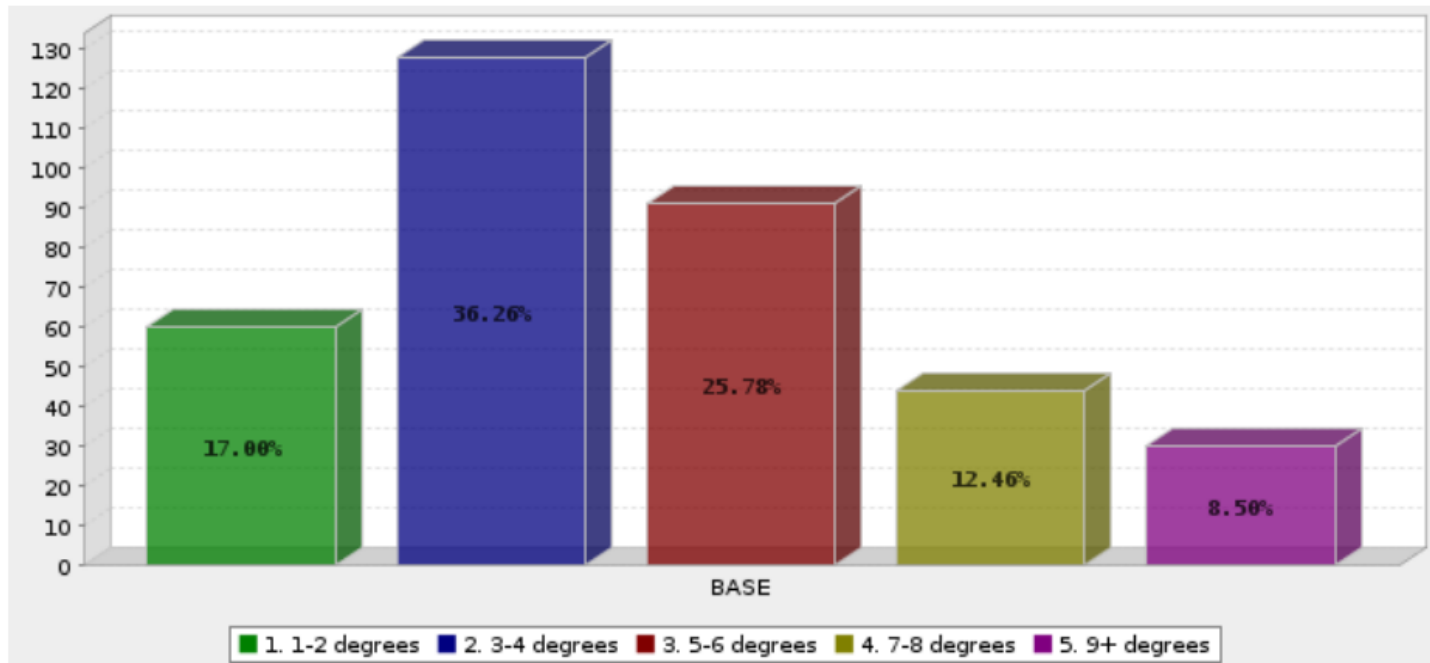
Thermostat Setback

- 48% of respondents have one
- 42% do not use programmable features



Thermostat Setback (Contd.)

- Of those using features, 83% turn down 3 or more degrees.



Thermostat Setback (Contd.)

When (or where) customers turn down*

37%
while
sleeping

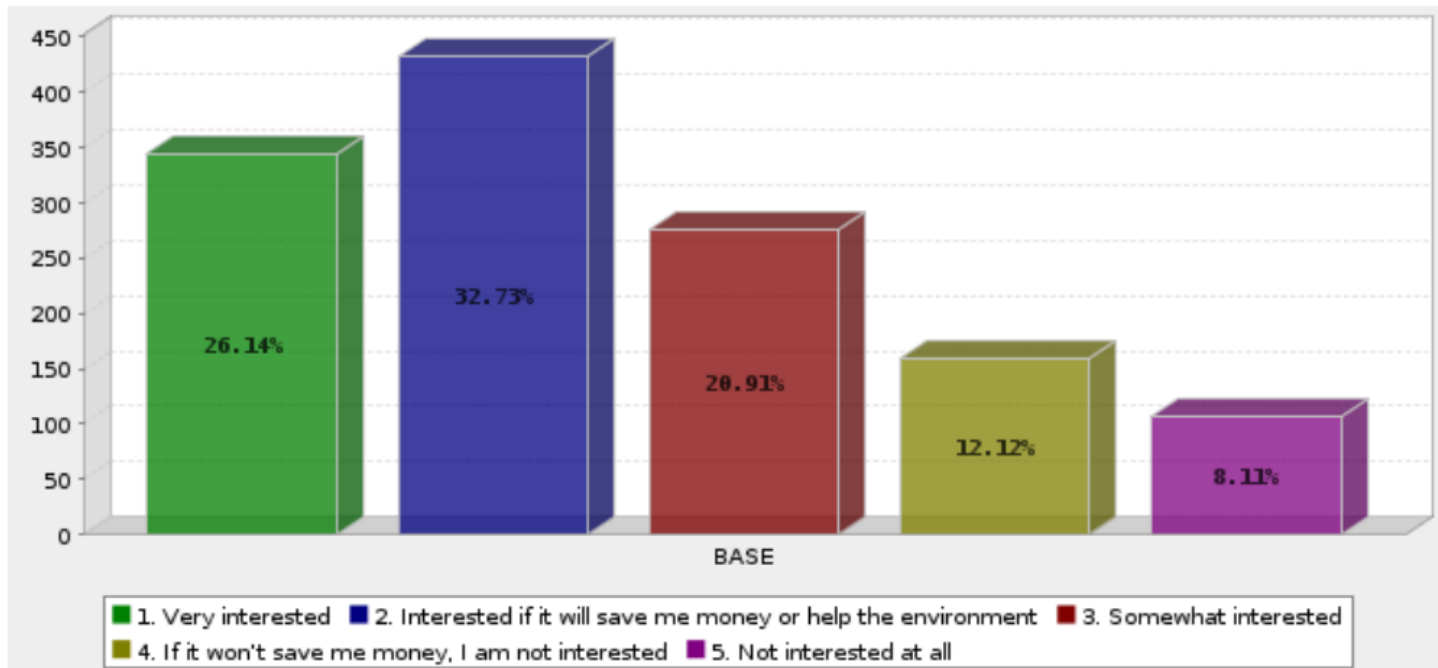
38%
when at
work

16%
in unoccupied
zones

**percent that responded "yes" on the survey*

Willingness to participate

- 80% of respondents at least “somewhat” interested in reducing natural gas use



Willingness to participate

Bill payers

- 27% “very interested” in learning about ways to decrease natural gas use
- 17% interested in “comparison to other household” information
- 30% “no interest” in participating in a comparison program

Non-bill payers

- 15% “very interested” in learning about ways to decrease natural gas use
- 17% interested in “comparison to other household” information
- 43% “no interest” in participating in a comparison program

Tenant Program Ideas

Program types

- Cognition
 - Education
 - Training
 - Workshops
- Calculus
 - Financial incentives
 - Prizes
 - Derived savings (e.g. from an energy audit)
- Social Interaction
 - Peer-to-peer interaction
 - “Green teams”

Tenant Program Ideas

Multi-family tenant program concept

- Apartment Building Benchmarking Competition
- Market: apartment building w/20+ units
- EE “challenge” between 3-4 large apt. buildings
- Gamification techniques
- Kick-off events
 - Educational sessions
 - Giveaways (e.g. shower timers)
- Measure energy efficiency gains per apt. building
- Prizes and catered events for “winners”

Tenant Programs Ideas

Single-family tenant program concept

- Home Energy Report with EE education (opt out)
- Market: single-family dwelling
- Print and online (optional) gas-use reports
- Educational materials
 - Programmable thermostat
 - Water heater setbacks
 - Cold-water washing
 - Shorter showers
- Measure results via participant survey

Tenant Program Ideas

Single-family or multi-family tenant program concept

- “Leave behind” EE education
- Market: single or multi-family tenants
- Participants in energy assessment (DI) program
- Educational materials
 - Programmable thermostat
 - Water heater setbacks
 - Cold-water washing
 - Shorter showers
- Measure results via participant survey

Next Steps

- Select program concept(s)
- RFP process
- Choose implementer by mid-June
- Launch program(s) by Sept. 1

Questions

energySMART 

A **Nicor Gas**™ program

nicorgasrebates.com

Thank you