



**SmartGrid  
consumer  
collaborative**

listen, educate, collaborate

# **The Empowered Consumer**

**4/20/16**

## ***SGCC: Who We Are***

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- ▶ *501(c)(3) nonprofit formed in March 2010*
- ▶ *Driven by the mission to advance a consumer-friendly, consumer-safe smart grid*
- ▶ *Membership organization comprised of utilities, technology companies, and nonprofit affiliates*
- ▶ *We work by listening, educating, and collaborating*

SGCC brings together leading utilities, technology vendors, and non-profit stakeholders

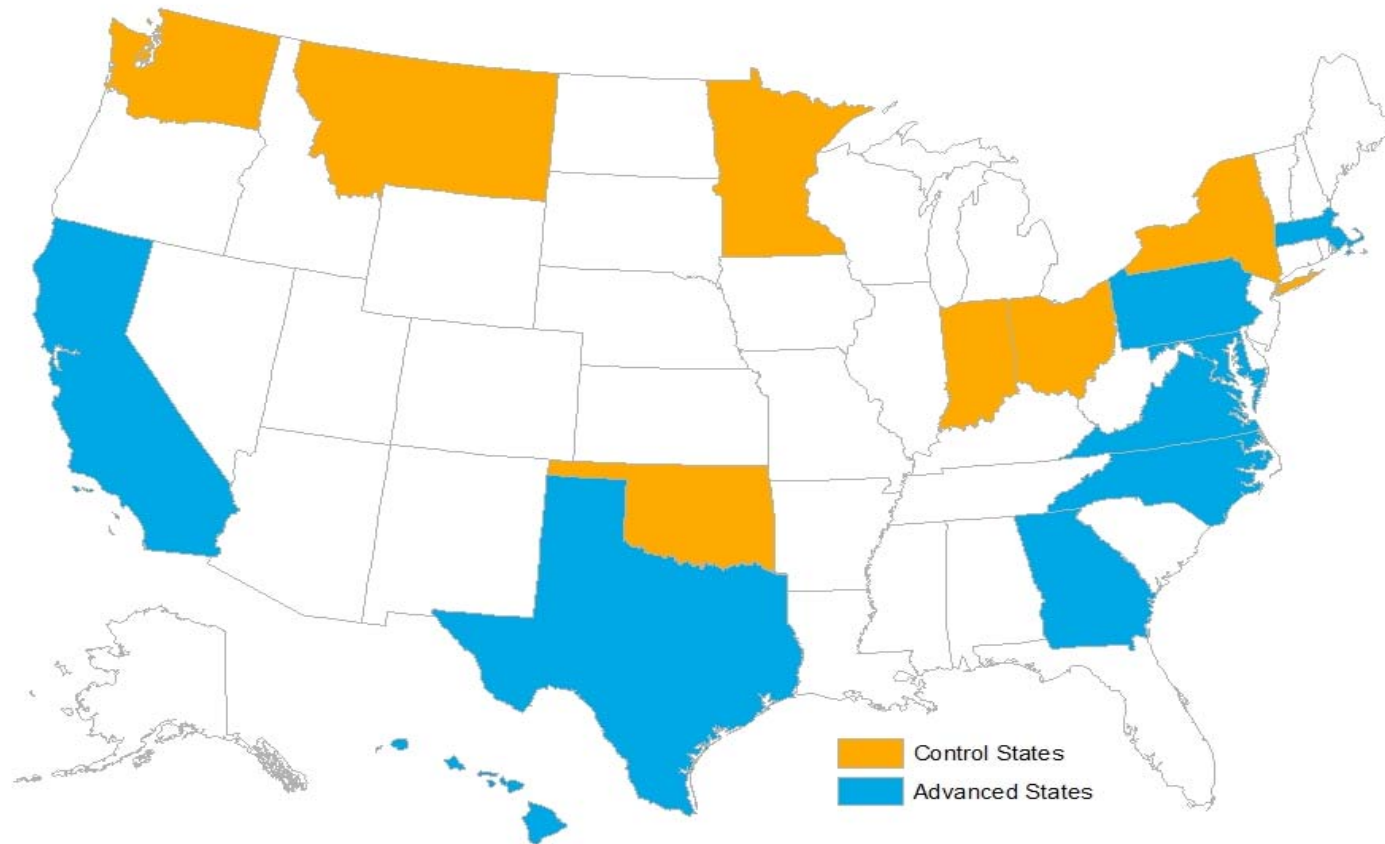


# WORKING IN PARTNERSHIP



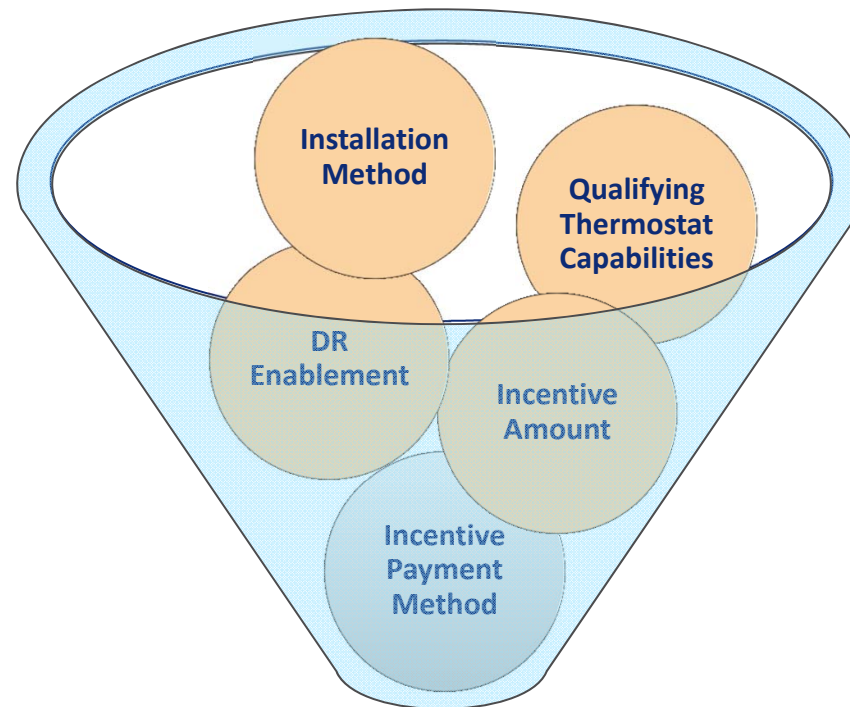
# The Empowered Consumer

The Empowered Consumer research examined how consumers use a variety of smart grid-enabled services and technologies, as well as the associated benefits and any perceived barriers to adoption. 1,500 completed surveys from residents across 16 states.



# Smart Thermostats as a Utility Customer Program

We created a hypothetical utility incentive program that incorporates smart thermostats and other common elements of downstream utility offerings.



**Smart Thermostat  
Utility Program**



# Smart Thermostats: Maximizing Participation Rates

This configuration appears to appeal to 68% of consumers

## Element #1: Installation Method (3 alternatives)

- A** DIY: free
- B** Utility assigned contractor: \$50
- C** Independent contractor: \$150

## Element #2: Qualifying Thermostat Capabilities (3 alternatives)

- A** Standard Programmable
- B** Programmable + Auto-adjusts to weather, etc.
- C** Auto-adjusts + occupancy sensor adjustments

## Element #3: DR Enablement (2 alternatives)

- A** Utility can control
- B** Utility cannot control

## Element #4: Incentive Amount (3 alternatives)

- A** \$50
- B** \$125
- C** \$250

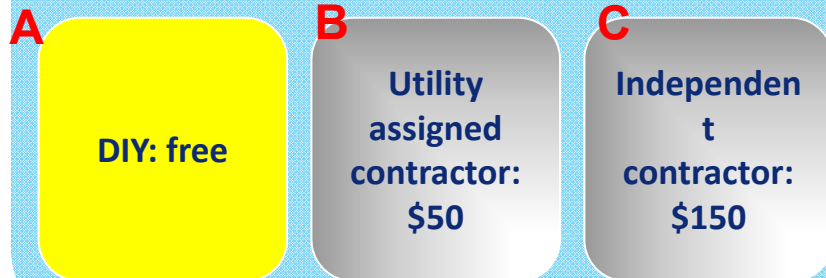
## Element #5: Incentive Payment Method (3 alternatives)

- A** Coupon
- B** Utility bill credit
- C** Rebate

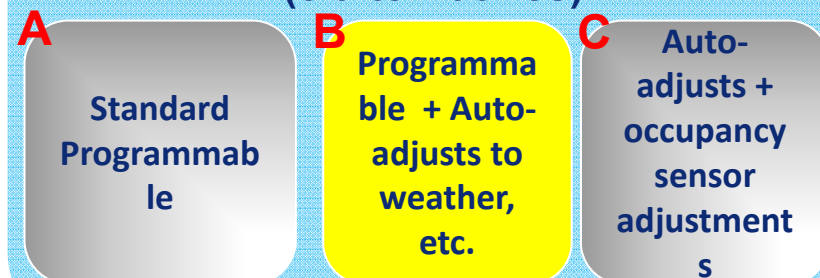
# Demand Response

Enabling demand response reduced customer appeal by 15%

## Element #1: Installation Method (3 alternatives)



## Element #2: Qualifying Thermostat Capabilities (3 alternatives)



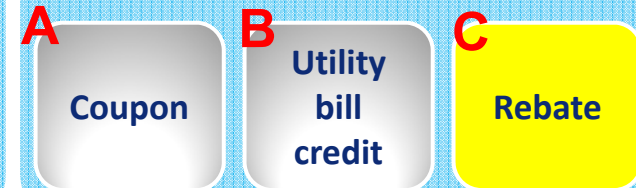
## Element #3: DR Enablement (2 alternatives)



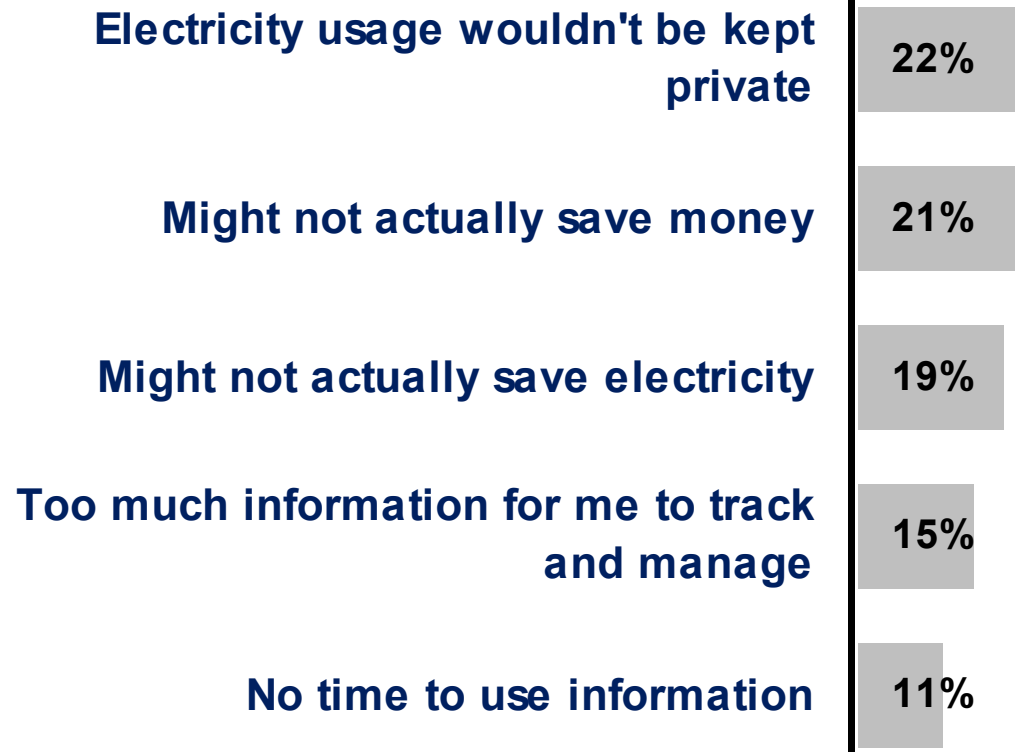
## Element #4: Incentive Amount (3 alternatives)



## Element #5: Incentive Payment Method (3 alternatives)



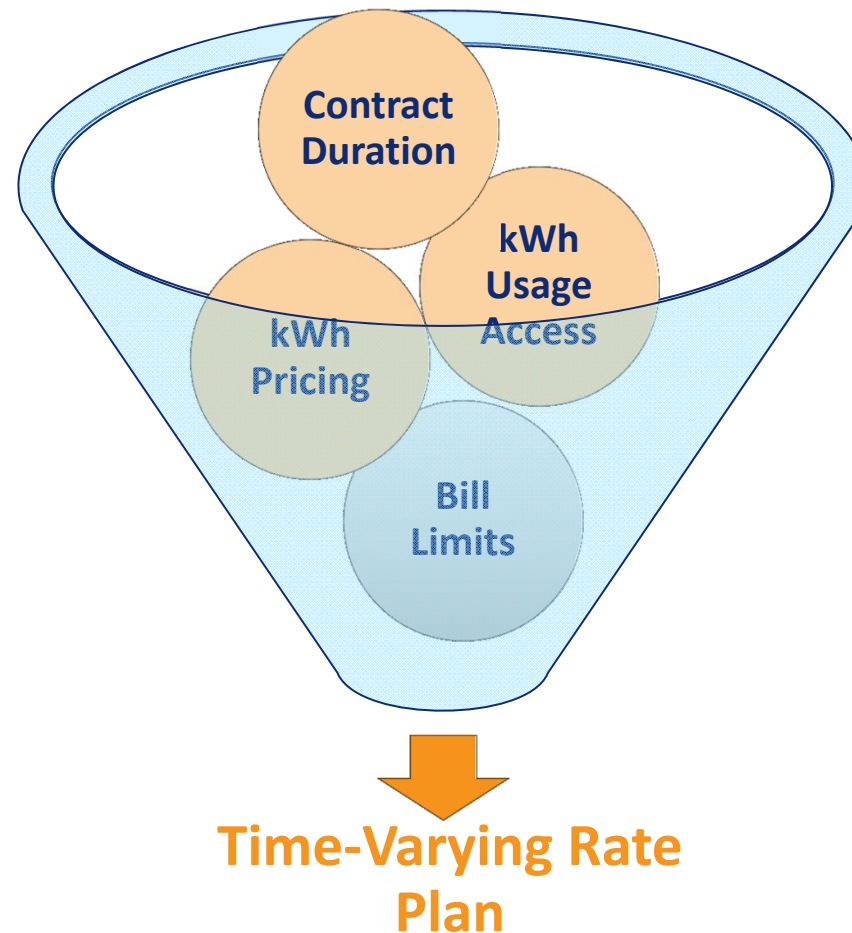
# Smart Thermostat / DR Concerns





## *Time-varying Rates as a Utility Rate Plan Offering*

We combined the time-varying rate plan concept with some additional elements to present a simplified rate plan offering to respondents.



# Predicted participation rates in three time-varying rate plans

## 60% of Customers Would Choose a Time-Varying Rate Plan with the Following Qualifiers

### Element #2: Bill Limits (2 alternatives)

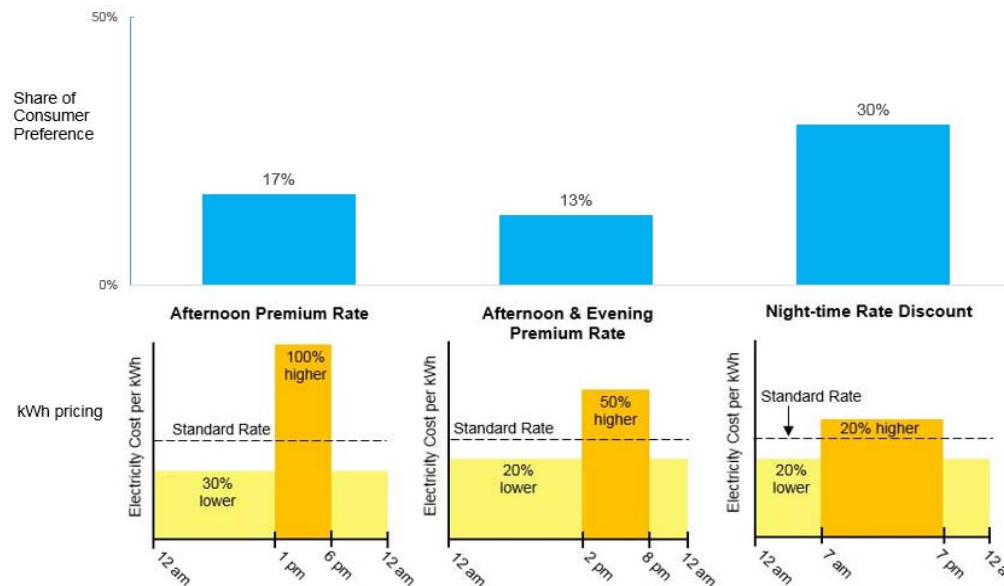
- A** Max Bill Guarantee
- B** No Max Bill Guarantee

### Element #3: Contract Duration (2 alternatives)

- A** Monthly
- B** Yearly

### Element #4: kWh Usage Access (3 alternatives)

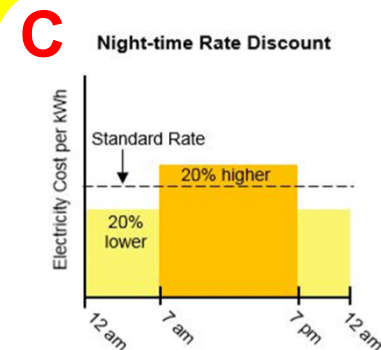
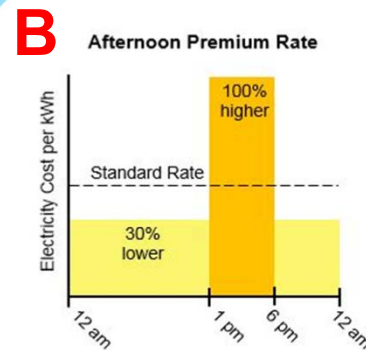
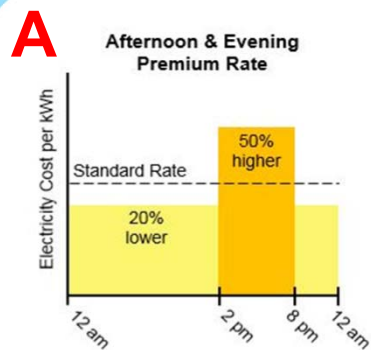
- A** Monthly Bill
- B** Weekly Summary
- C** Online Access



# Maximizing Participation Rates

The Night-Time Rate Discount is the most popular choice

## Element #1: kWh Pricing (3 alternatives)



## Element #2: Bill Limits (2 alternatives)

**A** Max Bill Guarantee

**B** No Max Bill Guarantee

## Element #3: Contract Duration (2 alternatives)

**A** Monthly

**B** Yearly

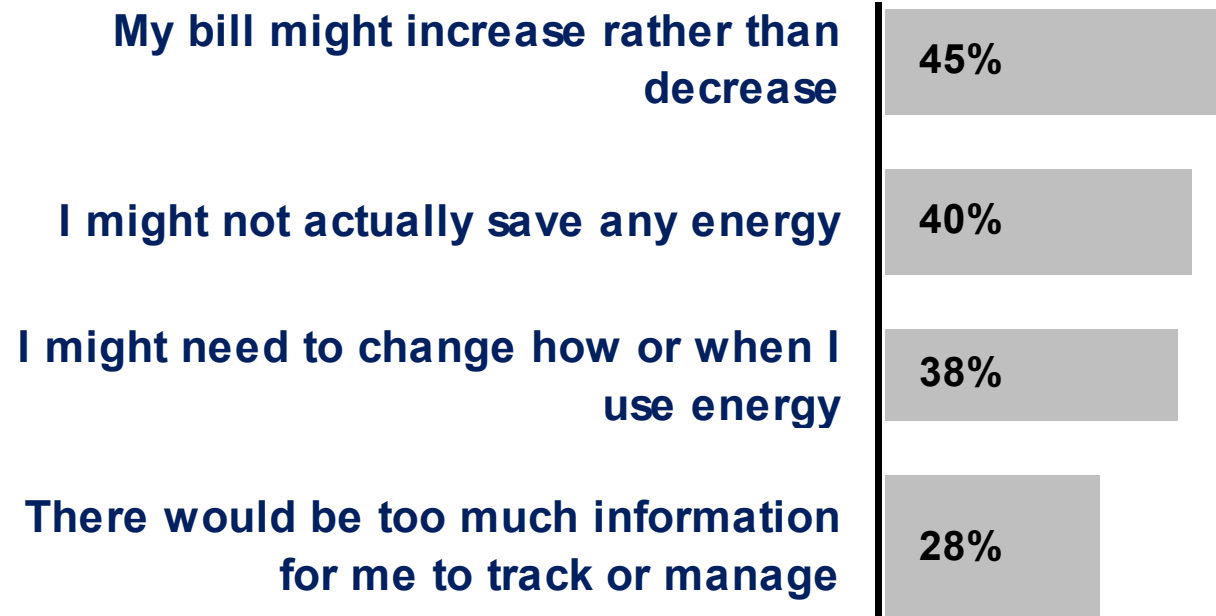
## Element #4: kWh Usage Access (3 alternatives)

**A** Monthly Bill

**B** Weekly Summary

**C** Online Access

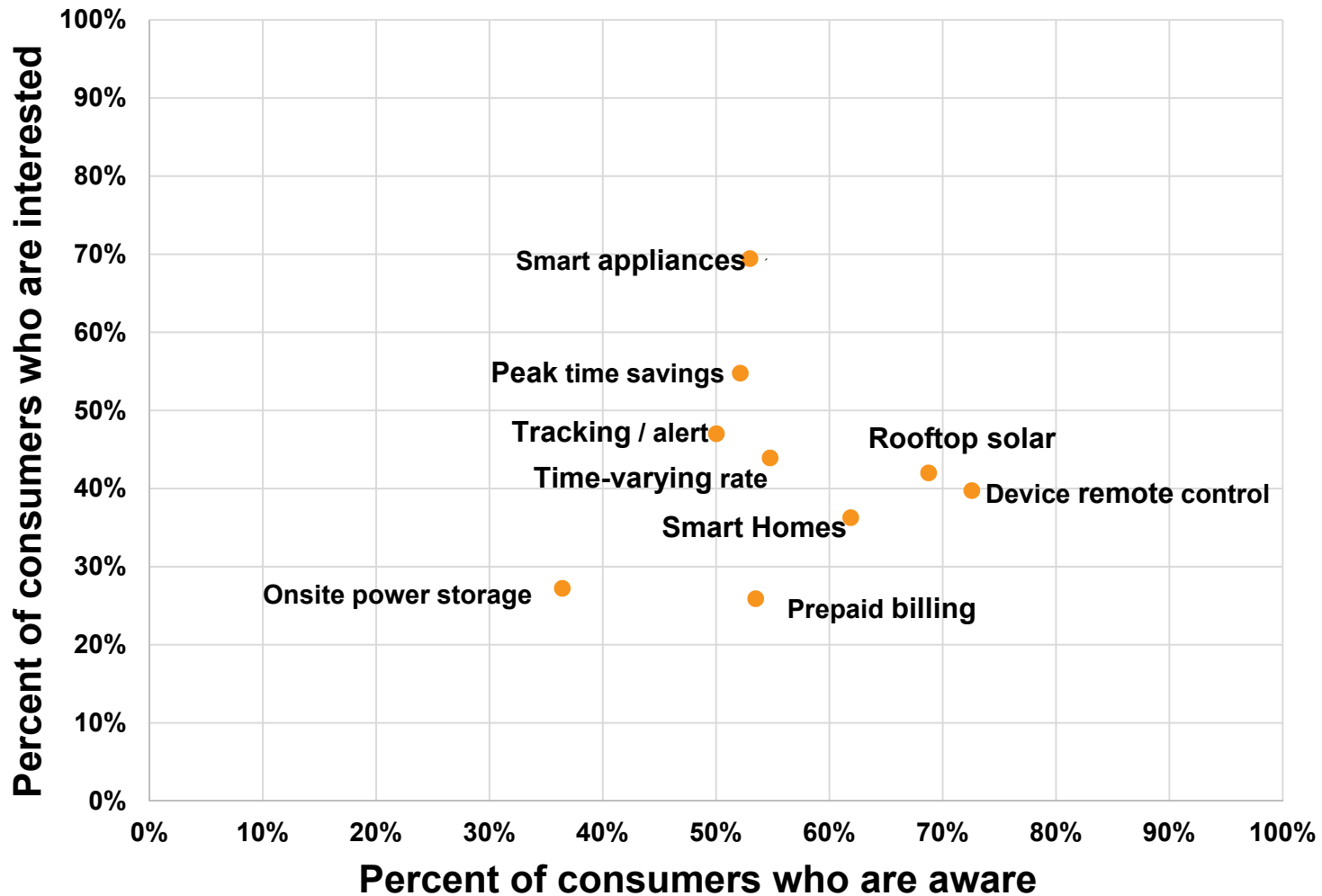
## Concerns with Time-Varying Rate Plans





# Smart Grid Enabled Products & Services

## Awareness vs. Interest



# Key Takeaways

- Consumers favor a Smart Thermostat Program that limits utility control, is free to install, and yields their monetary incentive in the form of a rebate. Enabling Demand Response reduces appeal by 15%
- 60% of consumers express an interest in switching to a Time-Varying Rate Plan
- Consumers will choose the plan that limits their financial risk in all scenarios

*Empowered Consumer To Be Released on  
May 10<sup>th</sup>*



[SmartGridCC.org/Empowered-Consumer](https://SmartGridCC.org/Empowered-Consumer)

# Questions?



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