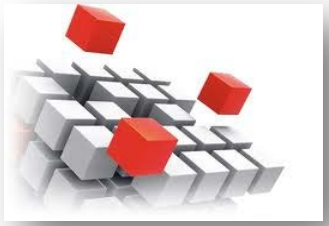
# Demand Response and myOGEpower

Presented by: Mike Farrell


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# Agenda





- Company Background
- Demand Response Background
- Program Design
- Customer Engagement





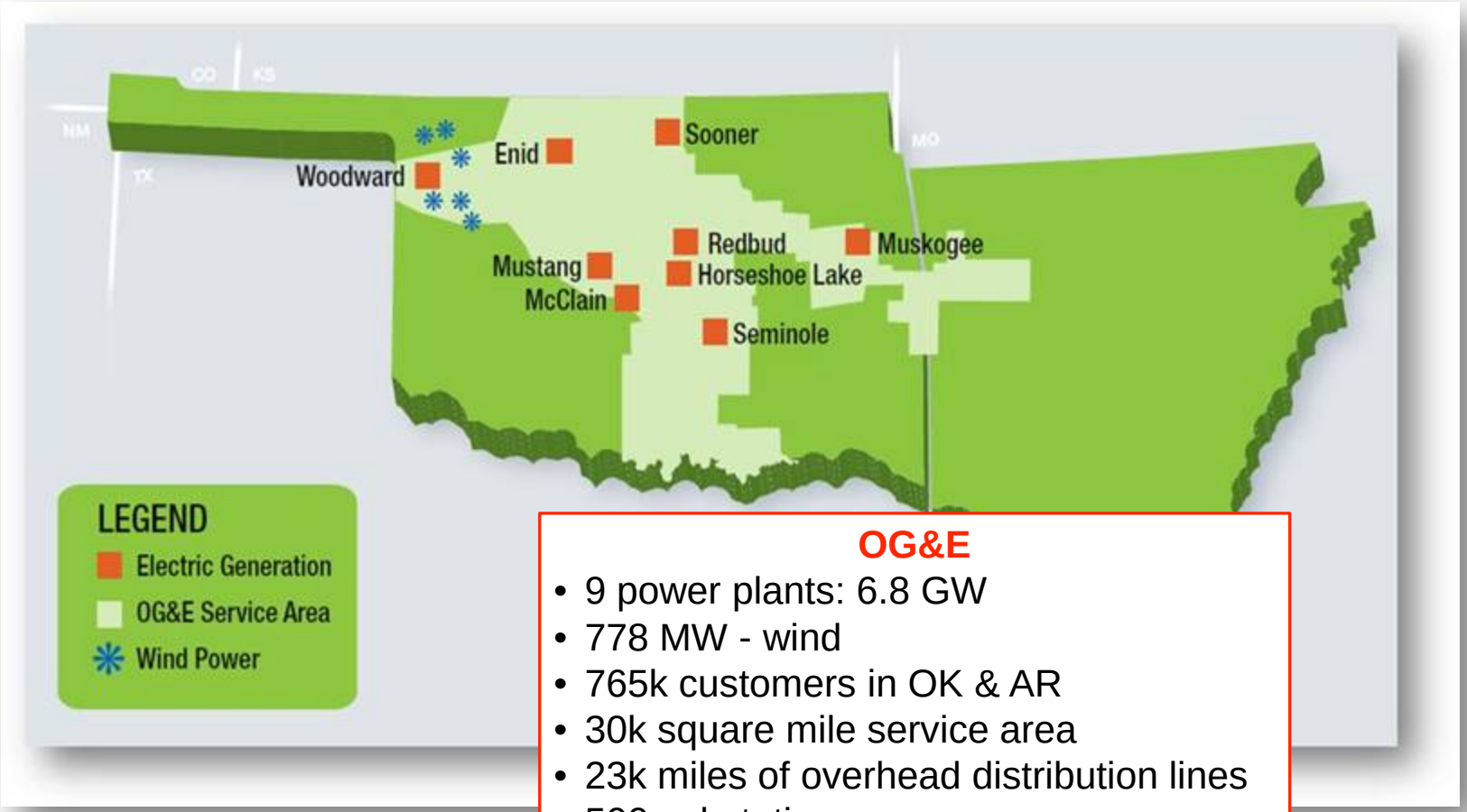


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# Who Is OG&E?




**OG&E**

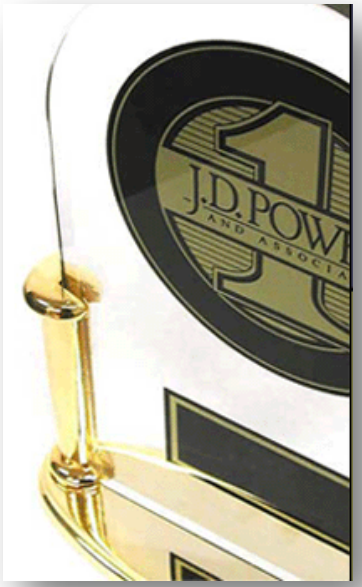
- 9 power plants: 6.8 GW
- 778 MW - wind
- 765k customers in OK & AR
- 30k square mile service area
- 23k miles of overhead distribution lines
- 500 substations
- 1100 distribution circuits



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# Demand Response Program Goals

- Delay construction of incremental fossil-fueled generation
- Customer participation goals:
  - 20% penetration
  - 1.3 kW per customer
- Demand reduction:
  - 298 MW
  - DR: 223 MW; VVO: 75
- Continued high customer satisfaction marks
- Sustainability






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# OG&E's Demand Response Guiding Principles



- Demand Response (DR) results obtained through customer empowerment
- OG&E will not directly control customer equipment or appliances
- Customers are provided time differentiated pricing and choose balance between cost & comfort
- Pricing (rates) reflect true costs minimizing any subsidies within or across customer rate classes
- All customer participation will be voluntary
- Enabling technology provided to customers at no cost
- Customers encouraged to remain on the program by creating a no-lose proposition for the first year

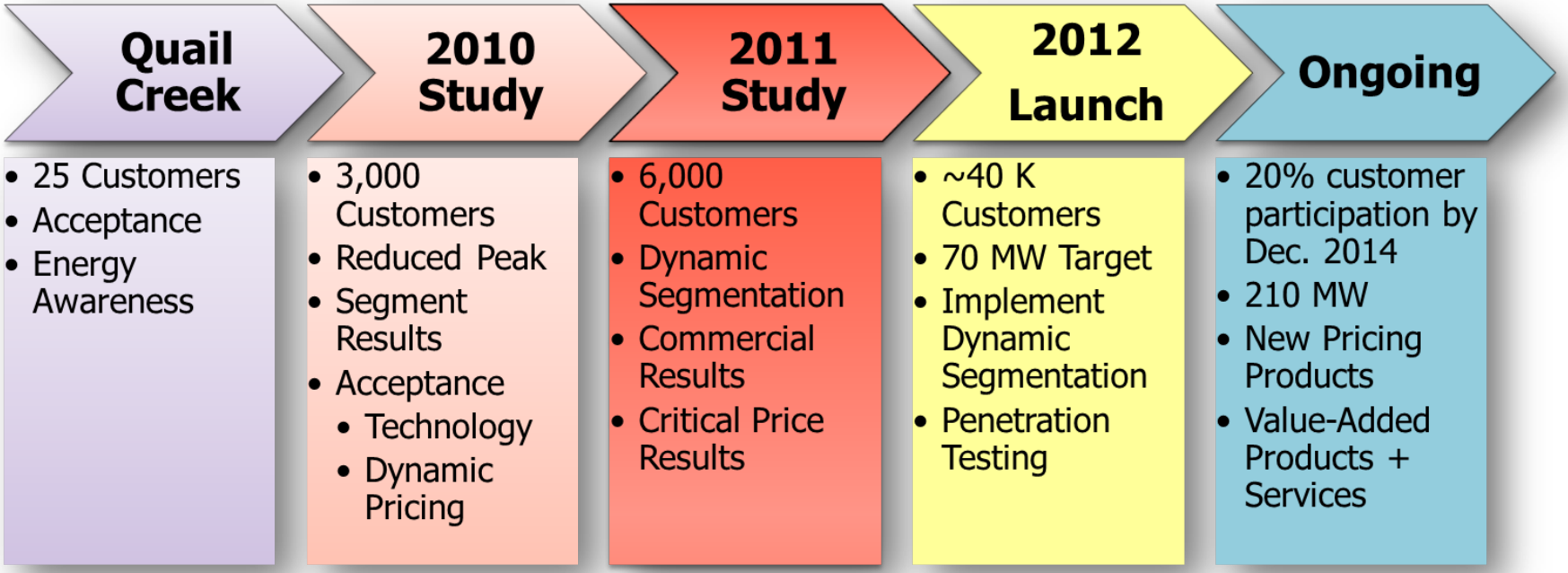




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# OG&E Demand Response Roadmap

From a 25-customer pilot to a 120,000 customer deployment






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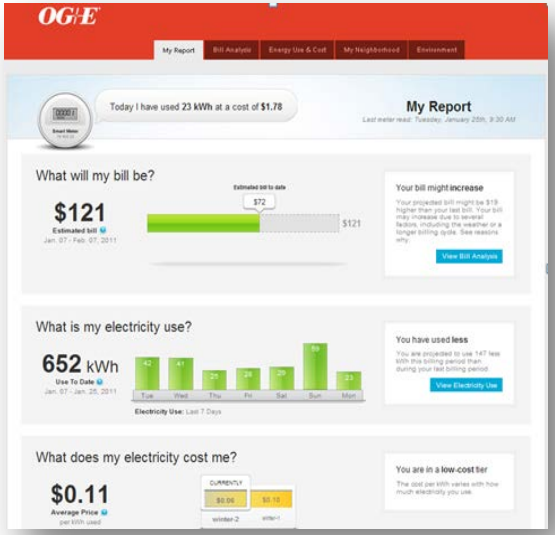
# Pilot Technology Overview




Programmable Communicating Thermostat (PCT)




**myOGEpower**







In Home Display (IHD)



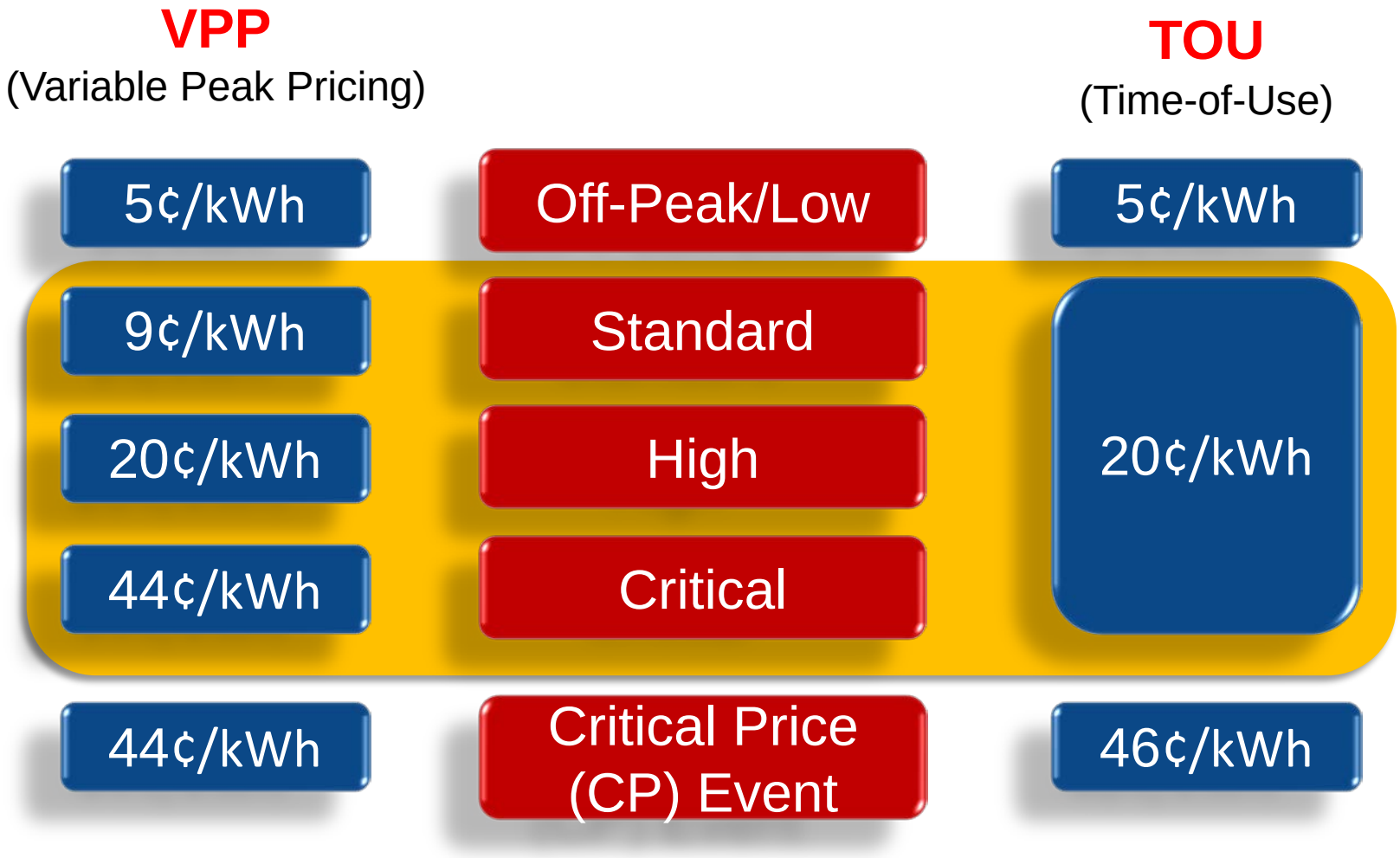

Control Group






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# Study Design — Price Plans






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# 2010-2011 Study Results – Validate Hypothesis

**VPP** rate combined with **PCT** enabling technology maximizes load reduction

| | VPP-CP Critical Weekday Max DR | TOU-CP Average Weekday Max DR |
|---|---|---|
| Web | 0.51 kW | 0.33 kW |
| IHD | 0.47 kW | 0.54 kW |
| PCT | 1.96 kW | 1.25 kW |

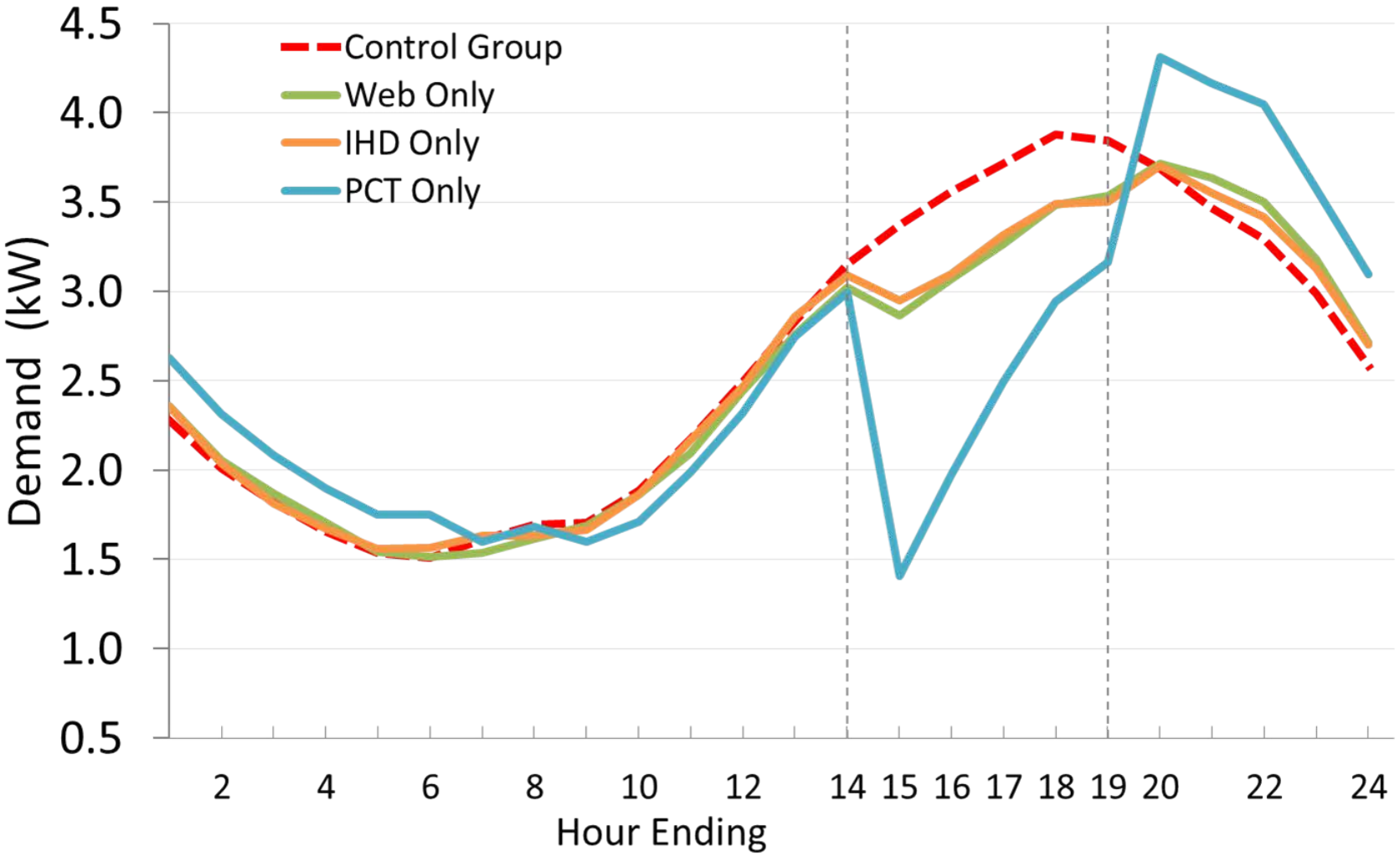


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# Demand Response VPP Study Results






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# SmartHours Overview

**Off-Peak**
**4.5¢/kWh**

**Standard**
**11.3¢/kWh**

**Medium**
**23¢/kWh**

**High/critical**
**46¢/kWh**




**Web Portal**

**SmartHours®**




**VPP Rate**

**PCT**



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# myOGEpower



**MY REPORT:** *Your personalized statement includes information like your current electricity use, your estimated usage for the month, even the cost per kilowatt hour.*



**MY NEIGHBORHOOD:** *How does your daily electricity use and cost compare with other OG&E customers in your area? Find out.*



**BILL ANALYSIS:** *By comparing your monthly bills, OG&E can show you how minor changes can reduce your consumption—and save your money.*



**ENVIRONMENT:** *See how your carbon impact compares to others, and discover tips and techniques for reducing it.*



**ENERGY USE & COST:** *Chart your daily or hourly use and see how it stacks up in the community—and how to keep your energy spending in check.*

Use **myOGEpower** each day to manage your electricity use and bills efficiently, to make better decisions about how to use your energy more wisely. Because working together, we can delay the need for new power plants until 2020 or longer, and still meet the growing demand for electricity and environmental stewardship.





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# SmartHours

***Portfolio Approach:***




## Deliver Proven RESULTS

- Energy Efficiency & Peak Load Reduction
  - Customers reduced energy
  - Peak load was reduced by as much as 33%
  - 99% of enrolled customers saved money
  - Eliminate incremental fossil generation
  - Price casting to consumers and device
- Improved Customer Service
  - 16% faster time to call resolution
  - 50% fewer complaints to regulators
- Peak Load Reduction
- Strengthened Brand
  - JD Power Award
  - EEI Award
  - Highest ranked grid project – US Department of Energy


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Source: 2014 Utility Analytics Summit Presentation by SSN

# Current Program Status

~ 91,000 Customers Enrolled in SmartHours Program

| | Avg. kW | Current Capability May 12, 2014 | |
|---|---|---|---|
| | | Customers | MW |
| **SmartHours** | .61 | 35,702 | 22 |
| **SmartHours Plus** | 1.95 | 49,323 | 96 |
| **SmartHours TOU (Rate Only)** | 0.69 | 6,045 | 4 |
| **SmartHours TOU (with PCT)** | 1.30 | 625 | 1 |
| **myOGEpower** | 0.21 | 36,000 | 8 |
| **Total** | | | **131*** |



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# The Myth Debunked:

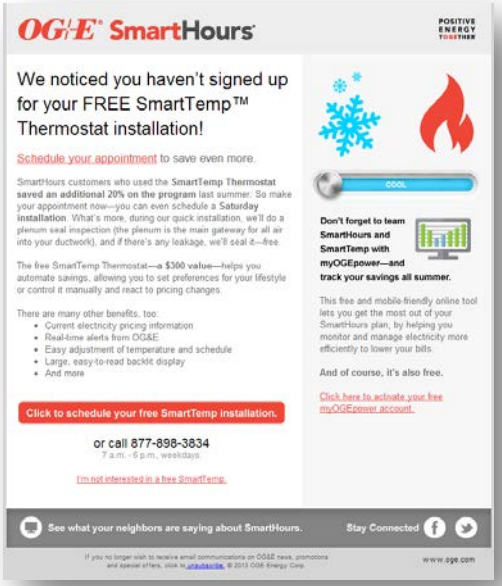
| By Income | Count | % of Customers | Average Savings |
|---|---|---|---|
| High Income | 25,242 | 40.87% | $167.35 |
| Middle Income | 20,863 | 33.78% | $129.52 |
| Lower Income | 15,653 | 25.34% | $105.59 |

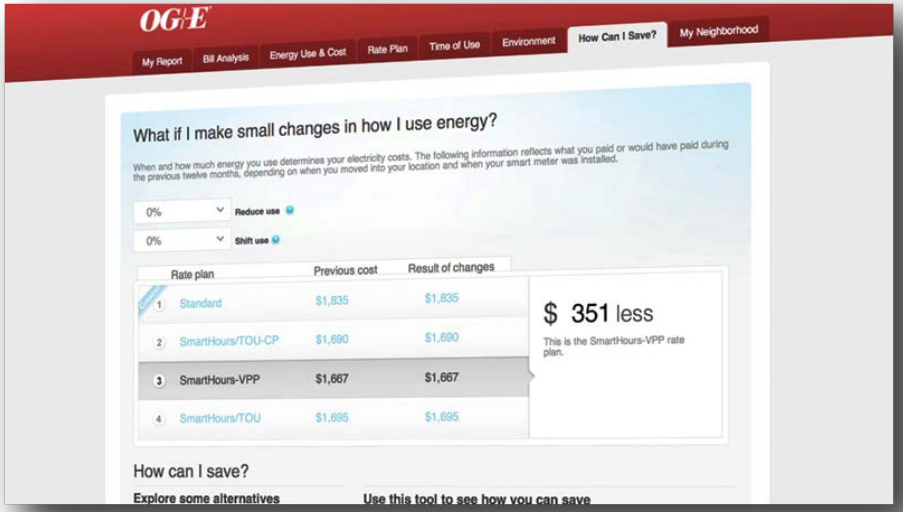
| By Age | Count | % of Customers | Average Savings |
|---|---|---|---|
| Younger Years | 21,263 | 34.43% | $128.41 |
| Family Life | 19,659 | 31.83% | $165.28 |
| Mature Years | 20,836 | 33.73% | $124.76 |


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# Engaging Customers






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# Man-on-the-Street Campaign

- myOGEpower and Savings
- Savings Potential



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# What We've Learned

- Technology and savings create sustainability
  - Primary customer driver is savings, technology only matters if it facilitates customer savings (ergo, myOGEpower is a tool to gain more savings)
  - Automation is key to sustainability: "set it and forget it"
- Pricing is critical to success
  - Must have fairly significant differential between on-peak and off-peak prices to create demand shifting
  - Communicating daily prices creates awareness and focus
- Choice Matters
  - Customers value having a choice in participating
- Consumer Behavior Studies - Best Practices



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# What's Next:

- Mobile Communications through the meter
- Load Disaggregation


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# Q&A


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