



Smart Thermostats The Future Or Just A Distraction?

Lee Hamilton | September 30, 2015

Today I'm The Bad Guy



The Journey Is Fraught With Peril



- Thermostat History + Regulatory Risk + Unproven Technology + Insufficient Data + Expensive



- 1. What level of energy savings are attributed to the installation and use of smart thermostats?**
- 2. To what level are customers interested in a “bring your own device” type of program with a rebate for purchase of qualifying device?**
- 3. Can smart thermostats provide a reliable and cost-effective Demand Response resource?**

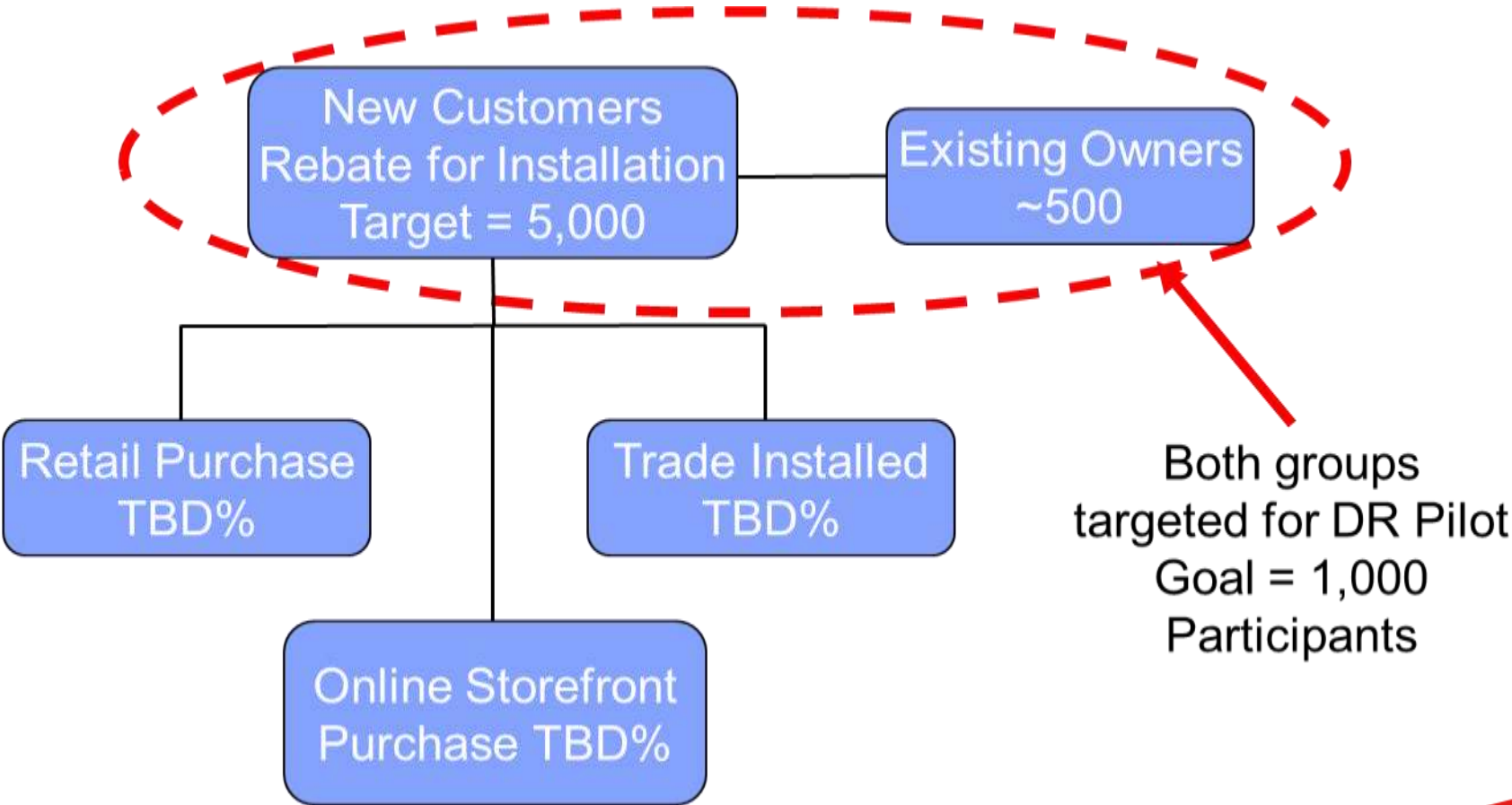


Why BYOT?

- It's what customers want (we think)
- It's what we want



Xcel Energy BYOT Pilot Model



DR Pilot Incentive Detail



- Upfront incentive for joining DR portion
- Pay for Performance
- Test two different compensation levels



Pilot Design

- Quantify the EE benefits and DR benefits
- BYOT, customer choices
- Customer Engagement
- Online storefront



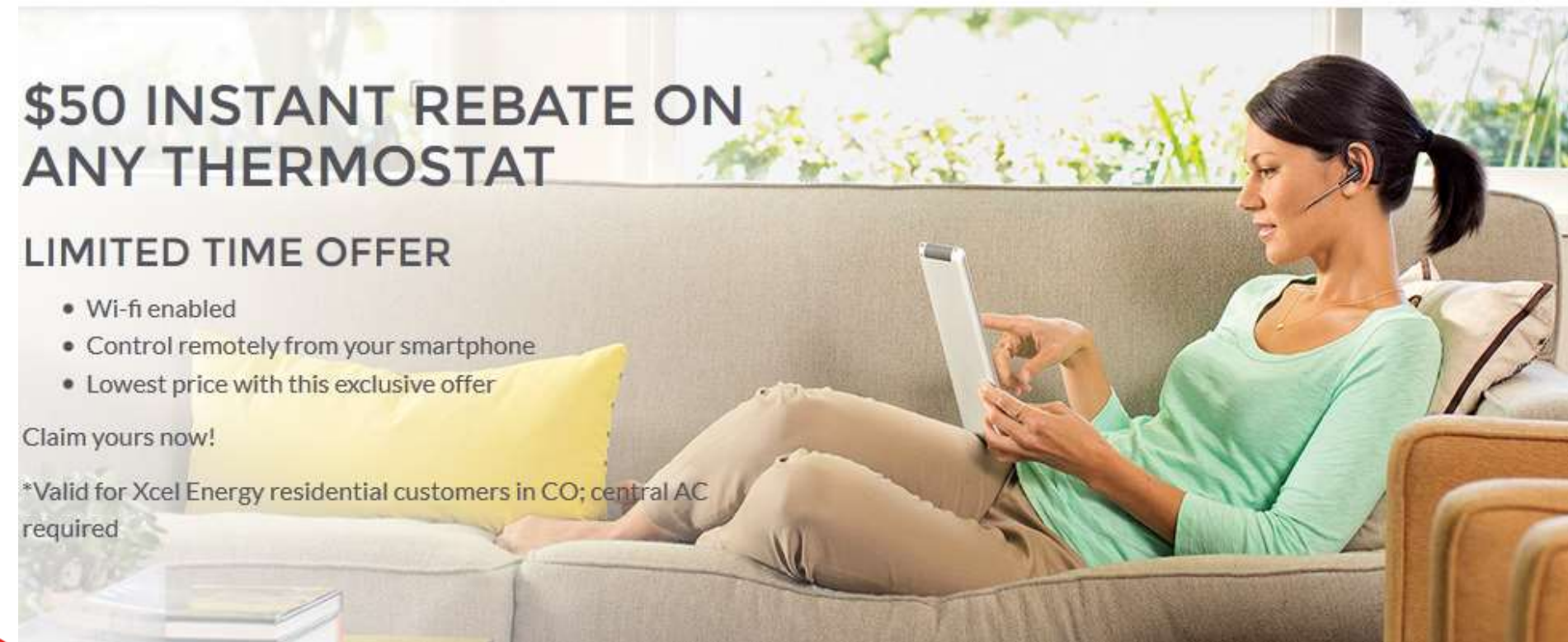
\$50 INSTANT REBATE ON ANY THERMOSTAT

LIMITED TIME OFFER

- Wi-fi enabled
- Control remotely from your smartphone
- Lowest price with this exclusive offer

Claim yours now!

*Valid for Xcel Energy residential customers in CO; central AC required



Xcel Energy Online Storefront



3RD GEN NEST LEARNING THERMOSTAT™

~~\$249.00~~ \$199.00
- \$50.00 Instant Rebate



ECOBEE3, HOMEKIT-ENABLED WITH REMOTE SENSOR

~~\$249.00~~ \$199.00
- \$50.00 Instant Rebate



HONEYWELL WIFI 9000 THERMOSTAT

~~\$229.00~~ \$179.00
- \$50.00 Instant Rebate



HONEYWELL VISIONPRO WI-FI THERMOSTAT

~~\$149.00~~ \$99.00
- \$50.00 Instant Rebate



HONEYWELL FOCUSPRO WI-FI THERMOSTAT

~~\$119.00~~ \$69.00
- \$50.00 Instant Rebate



ECOBEE SMARTSI WI-FI THERMOSTAT

~~\$179.00~~ \$129.00
- \$50.00 Instant Rebate

Challenges with BYOT

- Contracting
- Costs
- Integration/Partnerships
- Data Flow
- Online enrollment
- Rebate Validation



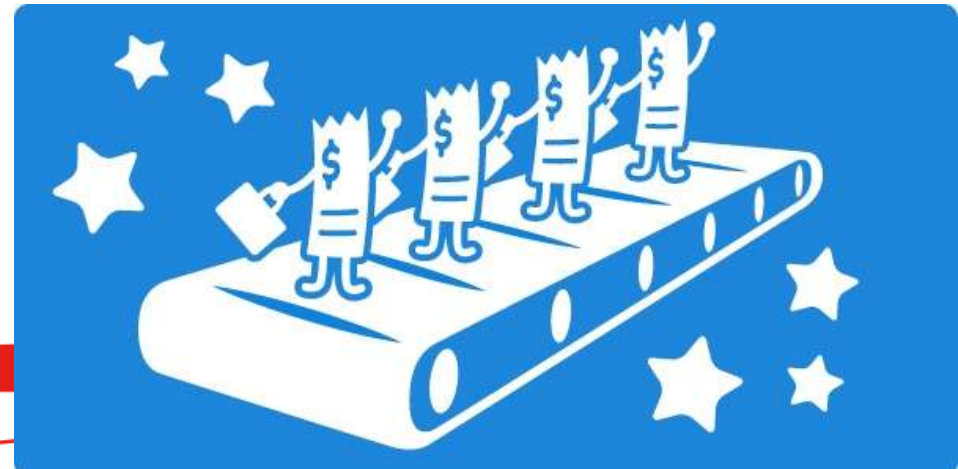
Contracting

- Four Partners = Four Contracts
- Four Contracts = Four Legal Teams

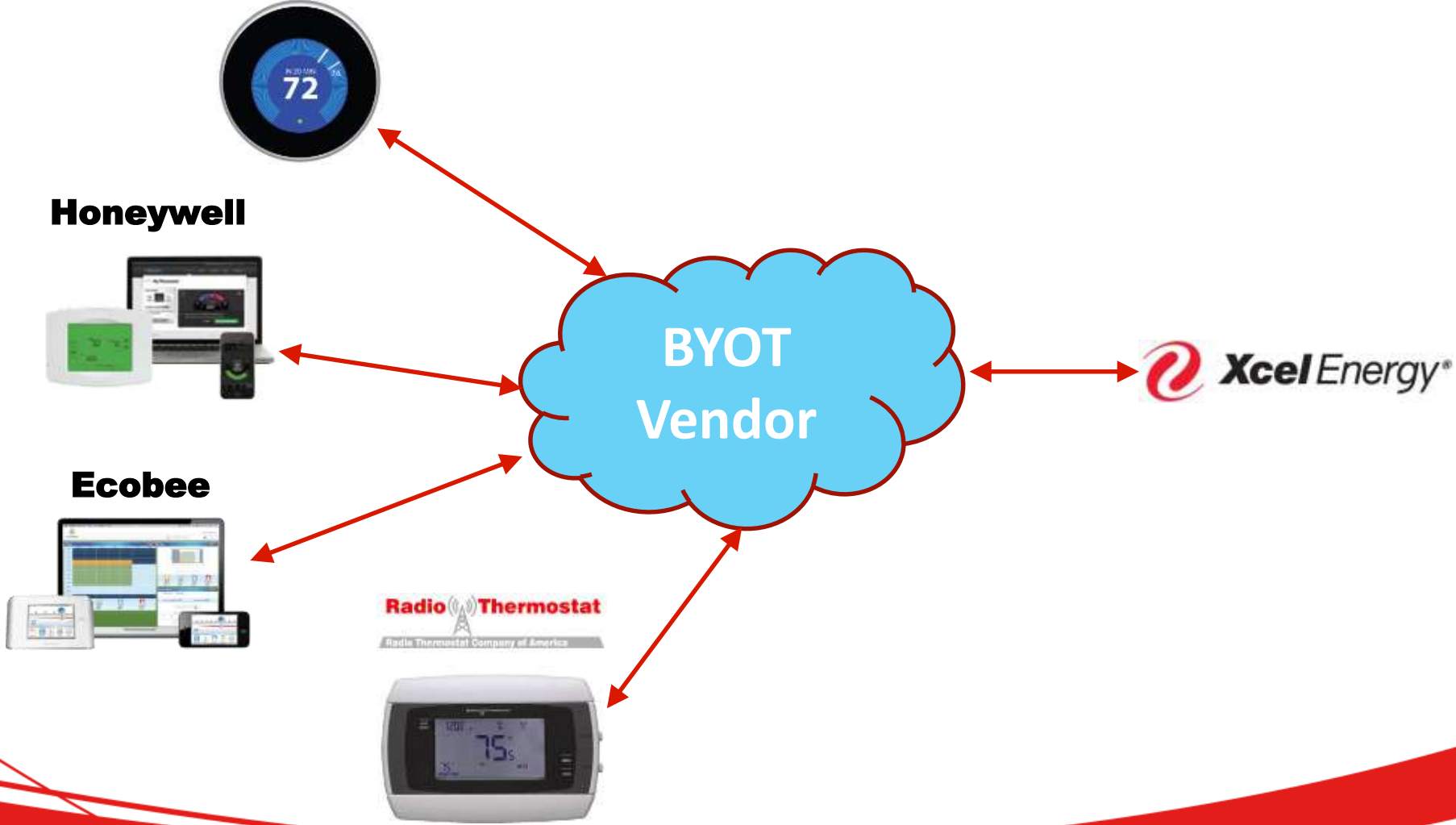


Costs

- Four Partners = Four Bills
- Cost setup similar across partners
 - Setup fee (one-time) + ongoing device fees (annual)
- Others have additional/premium costs
 - Management fee, specialty program/features, etc.
- Single BYOT vendor could help reduce cost



Integration – What We Wanted



Integration – What We Got



Radio Thermostat
Radio Thermostat Company of America



Honeywell



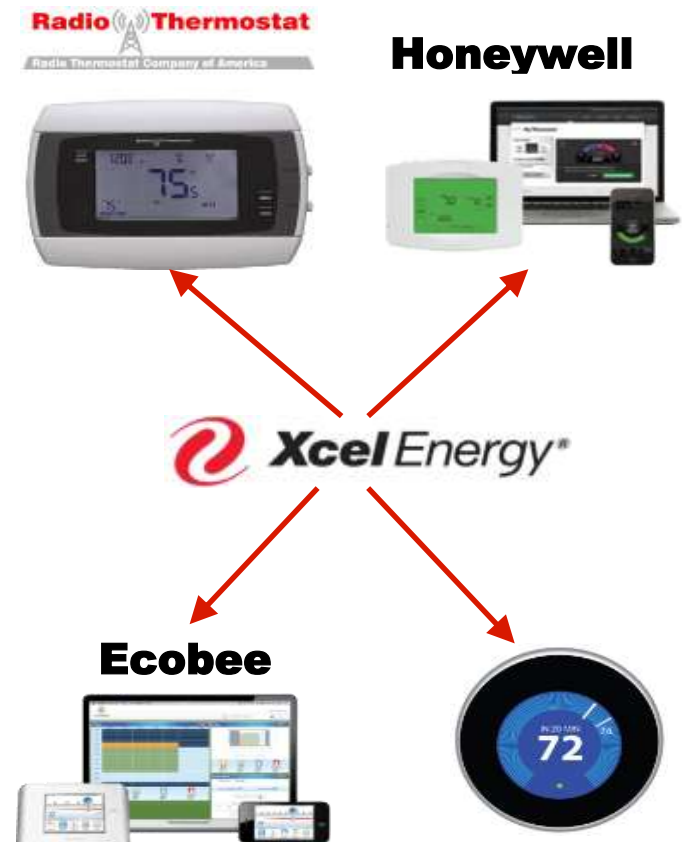
Xcel Energy

Ecobee



Data Flow

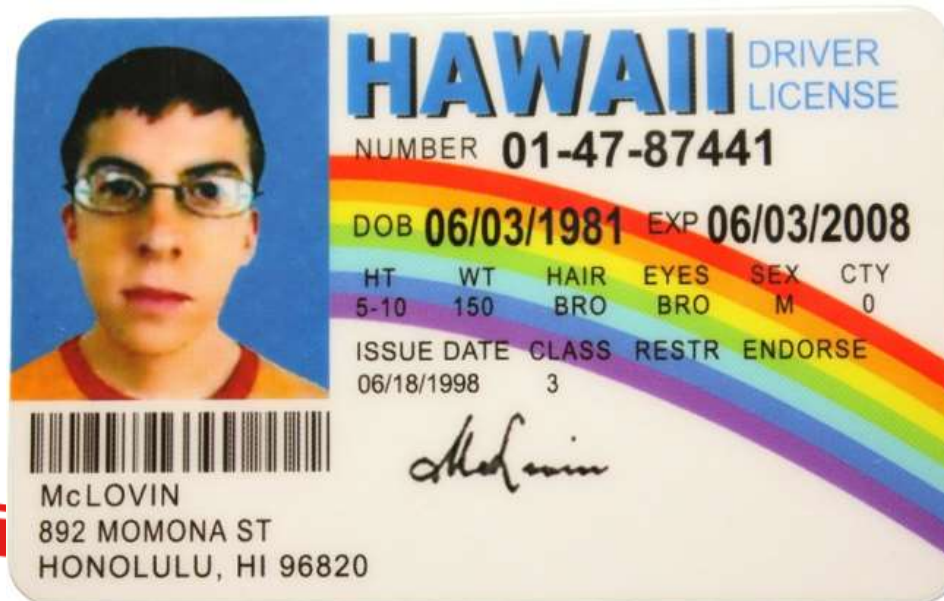
- Utilities only want one data stream
- Manufacturers aren't all working together (**yet???**)
- Data comes in various ways
 - CSV, APIs, etc.



Online Enrollment & Rebate Validation



- We want customers to be able to enroll online
- Four Partners = Four Enrollment Portals (\$\$\$)
- Each partner has different methods for validating customers
- Single BYOT vendor could reduce time/cost



Is It Worth It?

- At the end of the day, we think it will be



Want More Thermostats?



PLMA Thermostat Interest Group

<http://www.peakload.org/group/Thermostat>



PLMA
Demand Response Leadership Since 1999



Thank You!



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