



Energy Efficiency Program

# ComEd Sets the Foundation for the Utility of the Future with Smart Thermostat Program

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An Exelon Company

# Utility Overview

- ✓ Electric only distribution utility
- ✓ 3.85 million customers (70% of Illinois Population)
  - ✓ Single-family = ~1.9 million
  - ✓ Multi-family = ~1 million
- ✓ Service Territory: 11,428 square miles

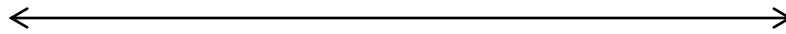


# Energy Efficiency Portfolio

## For Your Home

Assessments  
Rebates  
Discounts  
Recycling

**ComEd**  
Energy Efficiency Program



## For Your Business

Small Business  
Standard and Custom  
New Construction  
Mid-stream Lighting  
Retro-commissioning  
Industrial Systems



Assessments



Rebates



Discounts



Recycling

# Stresses on the current utility model

3 immutable truths disrupting many industries...

...Driving greater customer value

## Technology innovation is accelerating

- Digitization
- Automation
- Miniaturization



## Everything is connected

- IoT
- Pervasive connectivity



## Data is exploding

- Data and analytics
- Machine learning



- **More choice**



- **More control**



- **More convenience**



## Stresses on the utility model

### Stress on the business model

- Demand flat-to-declining while investment costs rising due to aging infrastructure
- Questions of responsibility / compensation for plethora of new players and investments
- With underlying RoE uncertainty linked to interest rate risk

### Stress on the grid infrastructure

- Innovation and investment needed to enable a more flexible, robust, bi-directional grid
- Changing usage driving peak and volume shifts – impacting ability to invest over long-term
- Increased need for cybersecurity and grid-wide reliability investments with more 3<sup>rd</sup> parties
- Increased need for grid resilience in response to natural and man-made events

### Stress on the customer

- Rising expectations of service levels, customization and environmentally-focused options
- Question of how to ensure base level of service for all customers (those who cannot afford new tech)

# Adopting a new structure to serve the customer

**FROM**

**TO**

**4 Services & solutions**

- Static web/mobile experience
- Electric service support, program enrollment

- Structured platform enables txns across traditional services and p2p scenarios
- Dynamic/personalized customer experience

**3 Transactive commodity exchange**

	2013 - 2014			2014 - 2015		
	012	013	014 & 0002	012	013	014 & 0002
June	\$0.05025	\$0.05011	\$0.05011	\$0.07709	\$0.07634	\$0.06738
July	\$0.05025	\$0.05011	\$0.05011	\$0.07709	\$0.07634	\$0.06738
August	\$0.05025	\$0.05011	\$0.05011	\$0.07709	\$0.07634	\$0.06738
September	\$0.05025	\$0.05011	\$0.05011	\$0.07709	\$0.07634	\$0.06738
October	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
November	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
December	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
January	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
February	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
March	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
April	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281
May	\$0.05070	\$0.05062	\$0.05750	\$0.07425	\$0.07370	\$0.07281

- Flat tariff structure based on rate class
- No sensitivity to location or temporal value of service
- Only demand and consumption priced

- Full real time exchanges (either bilateral or through a commodity exchange – e.g., D-LMP)

**2 System operation and planning**

- Traditional planning to accommodate central station generation
- Static long-term planning process

- Real-time power quality assessment and reliability monitoring
- Connected distributed architecture

**1 System operation and planning**

- Traditional grid infrastructure
- One-way power flows
- AMI network

- Mass market DER integration with traditional infra.
- Two-way power flows
- Fully transparent system

# Why Smart Thermostats?

- ✓ Shifting Demographics = a fundamentally different customer
- ✓ Customers want more control
- ✓ Customers want to save money and energy
- ✓ Smart thermostats are an entry point for the “Smart Energy Home” concept
- ✓ Creates more opportunities for customers to participate in demand response and energy efficiency programs

# What is a Smart Thermostat?

✓ A smart thermostat is a Wi-Fi enabled device that can automatically adjust heating and cooling temperature settings for optimal performance



- Allowing you to control home heating and cooling remotely through your smartphone.
- Geofencing, which allows your smart thermostat to know when you're on the way home and automatically adjusts your home's temperature to your liking.
- Learning your temperature preferences and establishing a schedule that automatically adjusts to energy-saving temperatures when you are asleep or away.
- Updating software periodically to ensure your smart thermostat is using the latest algorithms and energy-saving features available.

# Phase 1

- ✓ Spur adoption through rebates
- ✓ Generate awareness and educate
- ✓ Home page take-overs, digital pre-roll

ComEd. **Get Smart. Get \$120 back.** Get \$100 - \$120 in rebates when you buy an ecobee3. BUY NOW ecobee3 The smarter wi-fi thermostat with remote sensors.

ComEd. **Cash in while saving energy.** Get \$100 - \$120 in rebates when you buy an ecobee3. BUY NOW ecobee3 The smarter wi-fi thermostat with remote sensors.

Chicago Tribune

Get a \$100 rebate on select smart thermostats. BUY NOW

ecobee3

nest



UP TO \$100 ComEd REBATE ON SMART THERMOSTATS

Look for this sticker and save.

UP TO \$100 REBATE

ComEd.com/Thermostat

ComEd An Exelon Company

## ✓ Social media - Video

ComEd shared their video. September 15

Did you know that a smart thermostat can help you save on your heating and cooling costs? Save even more with ComEd rebates on select smart thermostats. bit.ly/2BRT6MH

AOL LIFESTYLE

This husband built a dream treehouse for his wife

ComEd Energy Efficiency Program

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UP TO \$100 ComEd REBATE

on select smart thermostats

ComEd.com/Thermostat

ComEd ecobee3



# Phase 2 - The ComEd Marketplace

Marketplace will enhance the customer experience, meet growing digital demands of our customers, delivery efficiency and enable the utility of the future



# ComEd Marketplace Highlights

Customers are increasingly seeking assistance in navigating growing energy, Distributed Energy Resource, and home energy offerings

- “To me, they are just another bill I pay - but if they would call and give me additional product ideas, that would be helpful.”
- “If my rep called & said, ‘You’re not using the back half of your office, unplug everything,’ that would be helpful, but I don’t have that kind of service from our ComEd.”
- “[Home automation] created a need, a need for more information so I could make an informed decision.”
- “I think rooftop solar system would be amazing. I’m just ignorant about how it works. I don’t understand how to even get started with something like that”

(1) ComEd Customer Focus Groups, February 2015

## Potential Marketplace Benefits

### To Customers

- Personalized energy saving insights, plans & offerings
- Consolidated source of products/services for customers to more easily make informed decision about energy offering purchases
- Streamlined rebate redemption process allows customers to apply rebates at the point of purchase

### To ComEd

- Increases customer satisfaction
- Provides opportunity to deepen customer understanding and establish additional customer touchpoints
- Lays foundation for Utility of the Future

## Marketplace Beta Concept



Sample Image

Sample Offerings: Small Home Appliances, Air Purifiers, Smart Thermostats, Lighting, Smart Power Strips, Plug Load Controllers, In-Home Energy Displays, Load Disaggregators, Energy Bridges

## Enhance Customer Journey



## Phase 3

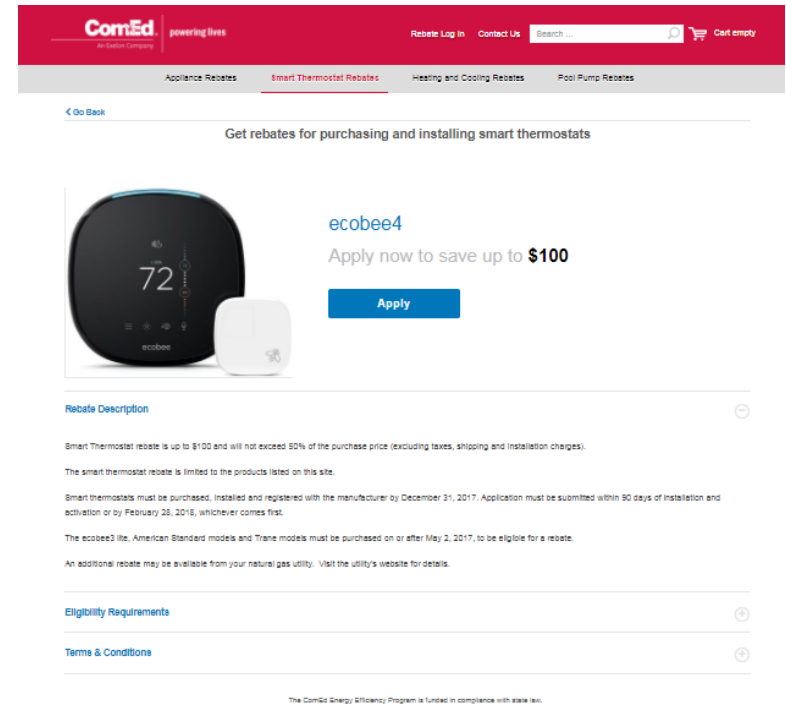
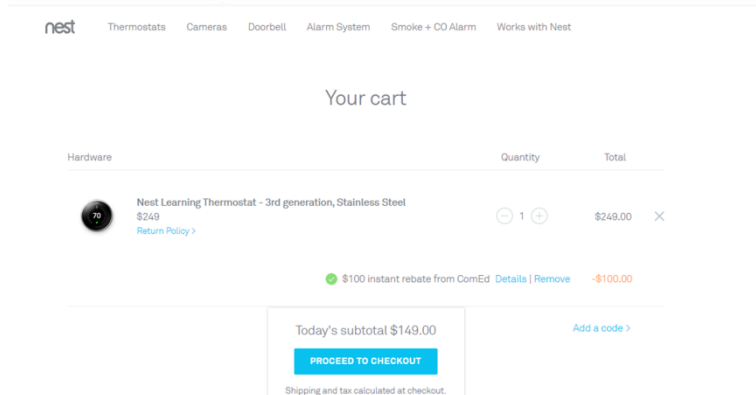
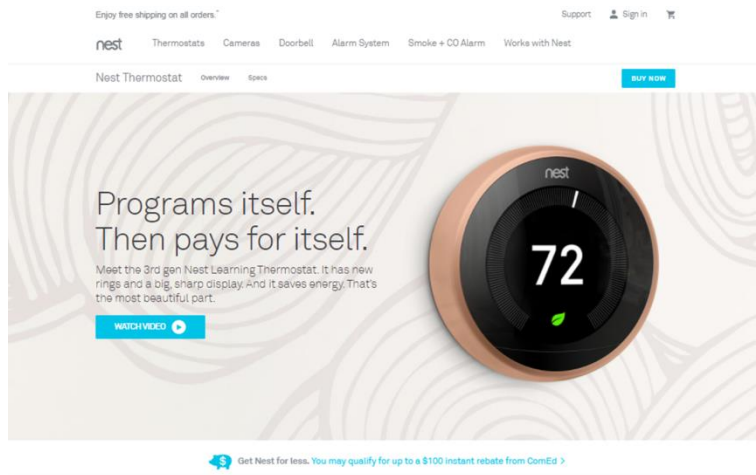
- ✓ Thermostat Optimization Programs
- ✓ Unlock Seasonal Savings



# Phase 4

## ✓ Omni-channel Instant Rebates

- Streamline post-purchase redemption
- Expand .com footprint



# Results

**95,007** smart thermostats incented (PY8/9\*)



**67,202**

smart thermostats  
self-installed  
("DIY")

**60,000+**  
Seasonal Savings  
Participants



**22,260**

Instant discounts  
through the ComEd  
Marketplace



Over  
**\$9.5 million**  
in smart thermostat  
incentives

\*PY9 results preliminary and unevaluated

# What's Next?

- ✓ Home Diagnostics
- ✓ Expand products and services across channels and marketplace
- ✓ Engage and add value via energy services
  - Demand Response
  - Installation services
  - Tune-up

# Utility of the Future Customer Strategy

Build upon our investments to deliver value, in a agile way, for *all* of our customers bringing them choice, control and customization.

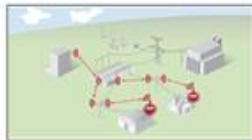
NON-EXHAUSTIVE

## Innovation Pipeline



Voice of the Customer and Employee

## Strategic Assets & Capabilities



Advanced Grid and Smart Meter Infrastructure



Business Intelligence and Data Analytics



Enhanced Digital Channels

## Programs & Pilots



Peak Time Savings



Smart Connected Devices



Expanded Energy Platform





Thank you!

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