

October 12, 2017

Residential Advisory Committee

Q4 2017

Wenatchee, WA





Welcome!

Agenda

10 - 10:15 AM	Welcome & Introductions
10:15 - 10:45 AM	Housekeeping & Portfolio Update
10:45 - 11:15 AM	Ductless Heat Pump Update
11:15 - Noon	Hot Water Solutions Media Campaign
Noon - 12:30 PM	Lunch
12:30 - 2 PM	Utility Share-out / Round Robin
2 - 2:15 PM	Break
2:15 - 3 PM	Super-Efficient Dryers Update
3 - 3:45 PM	Next Step Homes Update
3:45 - 3:50 PM	Public Comment
3:50 - 4 PM	Wrap Up / Adjourn

Housekeeping

- Follow-up on action items from Q3 2017 meeting
- RAC Workplan
- Packet/Informational Updates

Action Items

- Determine whether or not to offer utility incentives on NEEM 1.1 in, post-2019. Need to discuss in detail at Work Group level and again at RAC in 2018 before final approach is determined.
- Committee members to prep RPAC members before their meeting.
- NEEA will share out RPP market assessment report with the Work Group by end of the month

Action Items

- Jeff to follow up with Doug to establish specifics on Commercial Lighting impact on Residential.
- NEEA to take a look at who is doing the professional installs and follow up with Franklin PUD.
- NEEA to incorporate plumbers vs. HVAC dealers questioning as data request for Snohomish.

Proposed 2018 Meeting Dates

Q1 – January 30 @ Portland

Q2 – April 17 @ SeaTac

Q3 – August 02 @ Portland

Q4 – October 11 @ SeaTac

Ductless Heat Pumps

Suzi Asmus

Program Manager

Christopher Dymond

Sr. Product Manager



2017 DHP Areas of Focus

- Improve Cost Effectiveness
- **Cost Containment**
- Increase Customer Valuation of the Technology
- Assess expanded target market and technology opportunities

Contractor Assisted Install (CAI)

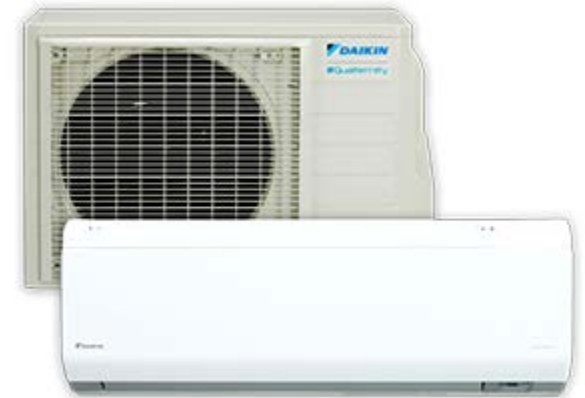


Everything You Need For A Successful Installation

When you receive our Do-It-Yourself Ductless Heat Pump Package, it includes everything you need to perform a streamlined installation.

- ✓ Top-Shelf Equipment
- ✓ Professional Installation Materials

DIY WITH ASSISTANCE



TheHeatPumpStore.com

Do-It-Yourself (DIY)



MRCOOL DIY Ductless 24000 BTU Air Conditioner and Heat Pump with Quick Connect

Item #: DIY-24-HP-230A

[Email to a Friend](#)

[Be the first to review this product](#)



Your Price: **\$1,646.00**

Availability: **In Stock**

Shipping: In stock items ship within 24 hours

FREE Shipping!

Qty:

[Add to Cart](#)

100% DISCREET SHIPPING | PRICE MATCH | **THE HB[®]** DIFFERENCE

[Warranties](#) | [Returns & Replacements](#)

[View Full Product Details](#)

[Additional Images](#)

Quick Connect Study



Quick Connect Update

Phased approach that allows us at each stage to have an off-ramp

- ✓ Identified DIY Products and review qualifications “on paper”
- ✓ Install 4 systems
- Lab Study of Quick Connectors
- ? Field Trials



Identify Products



Identify Products

- Ideal Air
- Mr. Cool
- Aura Systems
- Mirage
- Utopian
- Klimaire
- Friedrich
- AmericAire
- Caribou
- Ramsond

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Install Four Systems





Installation Process

- Shopped for best retail price
- Highly qualified team
- Documented process
- Drafted user recommendations
- Performed follow up QA visits at 15, 45 and 75 days

Quality Assurance Results



- Customers satisfaction
- System performance
- Refrigerant leak test

Install Costs

	Site 1	Site 2	Site 3	Site 4	Regional Average
Unit	220v Ideal Air	110v Ideal Air	220v Mr. Cool	220v Mr. Cool	1:1
Unit Capacity	24K BTU	12K BTU	18K BTU	18K BTU	
Unit Cost	\$2,400	\$1,450	\$1,457	\$1,457	
Mechanical Permit	\$106	\$106	\$120	\$106	
Additional Components	\$278	\$278	\$278	\$278	
Electrician (including electrical permit)	\$783	\$793	\$748	\$688	
Total	\$3,566	\$2,626	\$2,602	\$2,529	\$4,462

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- Fan noise continuous (Ideal Air)
- Constant air blowing even when not heating (Ideal Air)

Conclusions



Recommendations

Manufacturer Improvements:

- Include indoor head template
- Increase line set length flexibility
- Improve fan control
- Clarify instructions

Study Stage Gate Decision:

- Move forward with next stage of research

Due Diligence - Fittings



Due Diligence

- 4 types of connectors being examined
- Test standards, test results, product samples
- Literature review
- Cascade Engineering Services review

Q & A

Thank you

Suzi Asmus

sasmus@neea.org

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October 12, 2017

Digital Marketing: Trends & Best Practices

Kyle Stuart
Marketing Manager





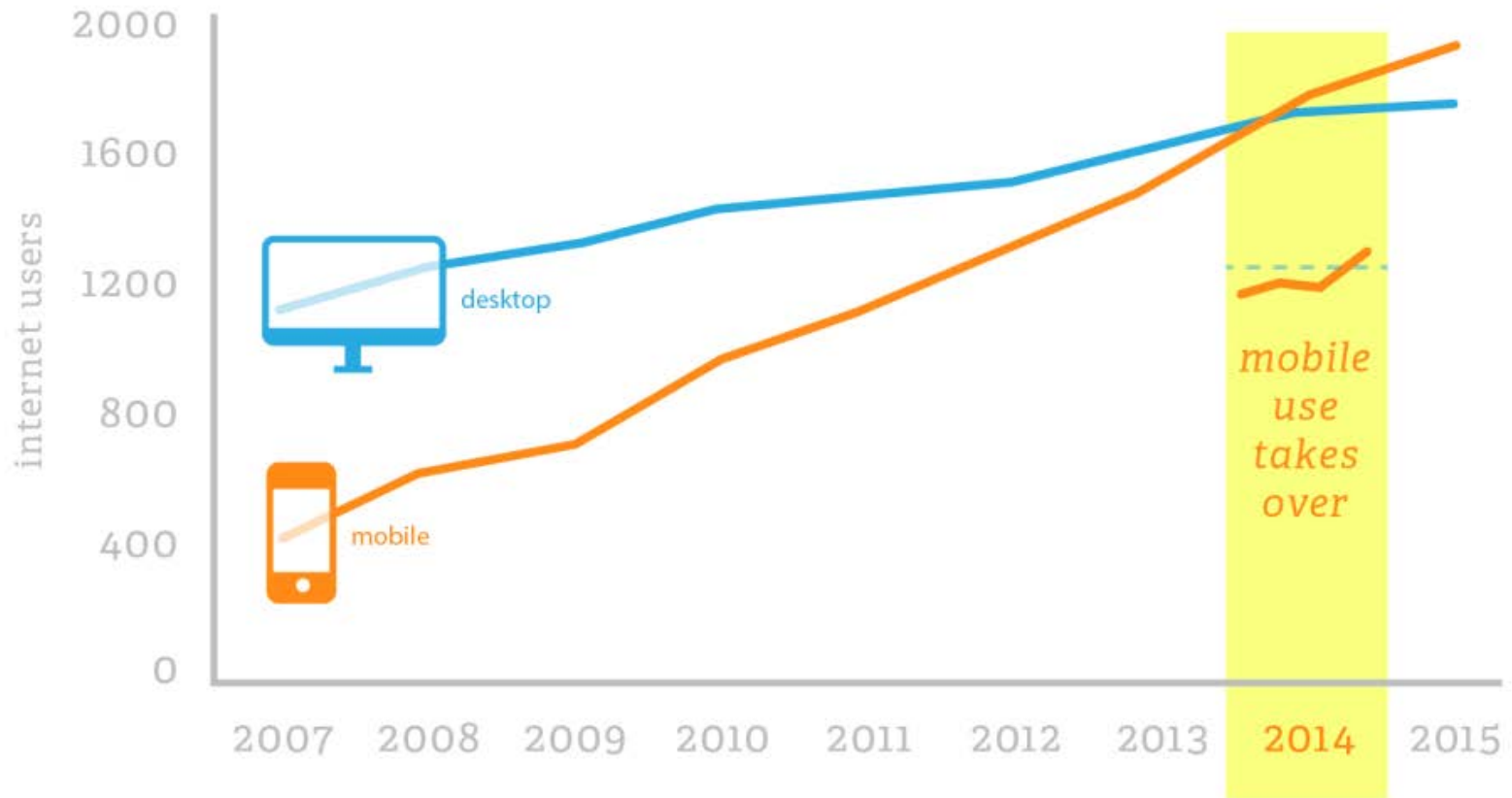
7.4 BILLION MOBILE DEVICES GLOBALLY



Source: Cisco 2016 (includes tablets)

2014: YEAR OF THE Mobile Revolution

MOBILE INTERNET USE WILL OVERTAKE DESKTOPS THIS YEAR.



Source: ComScore

2,617



Social Media Use

Average Time Daily Time Spent on Social



YOUTUBE
40 MINUTES



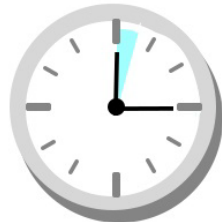
FACEBOOK
35 MINUTES



SNAPCHAT
25 MINUTES

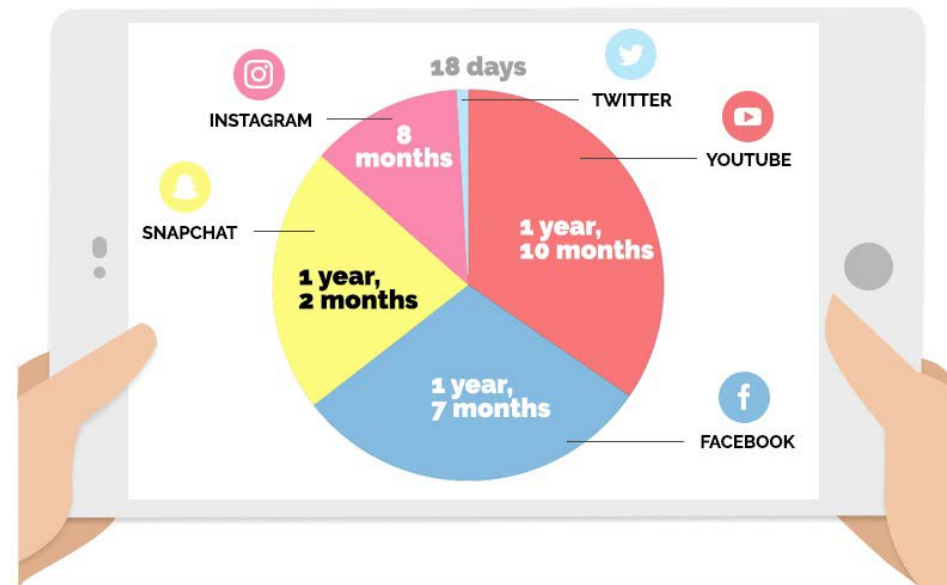


INSTAGRAM
15 MINUTES



TWITTER
1 MINUTE

Time Spent on Social in a Lifetime



Social Media Use - 2017

TOTAL NUMBER
OF ACTIVE SOCIAL
MEDIA USERS



2.789
BILLION

ACTIVE SOCIAL USERS
AS A PERCENTAGE OF
THE TOTAL POPULATION



37%

TOTAL NUMBER
OF SOCIAL USERS
ACCESSING VIA MOBILE



2.549
BILLION

ACTIVE MOBILE SOCIAL
USERS AS A PERCENTAGE
OF THE TOTAL POPULATION



34%

we
are
social



we
are
social

MAY 20, 2013

Obama's New Boss / Syria face-off / McCain vs. Brzezinski / PLUS: Summer's best movies & more

TIME

THE ME ME ME GENERATION

Millennials are lazy, entitled narcissists
who still live with their parents

Why they'll save us all

BY JOEL STEIN



time.com



YOU ARE NOW ENTERING
a
DEVICE-
FREE ZONE *yes!*



“Once I used to be a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.”

Nicholas Carr, Author of
The Shallows: How the Internet is Changing our Brains



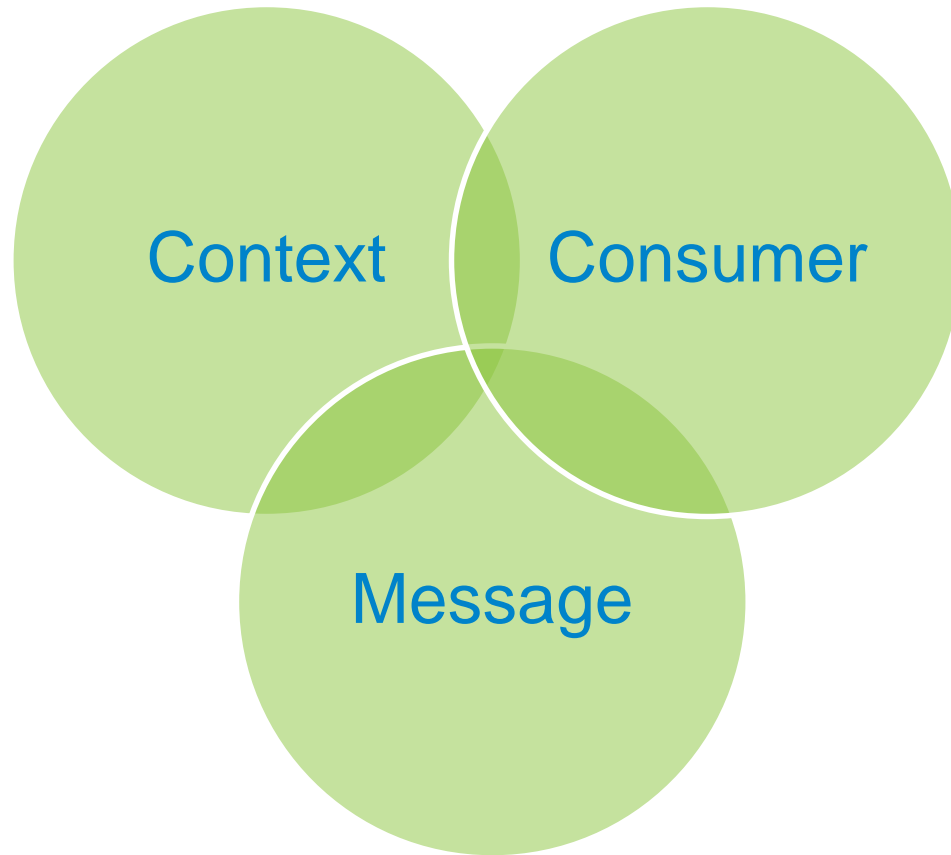
Attention is Earned



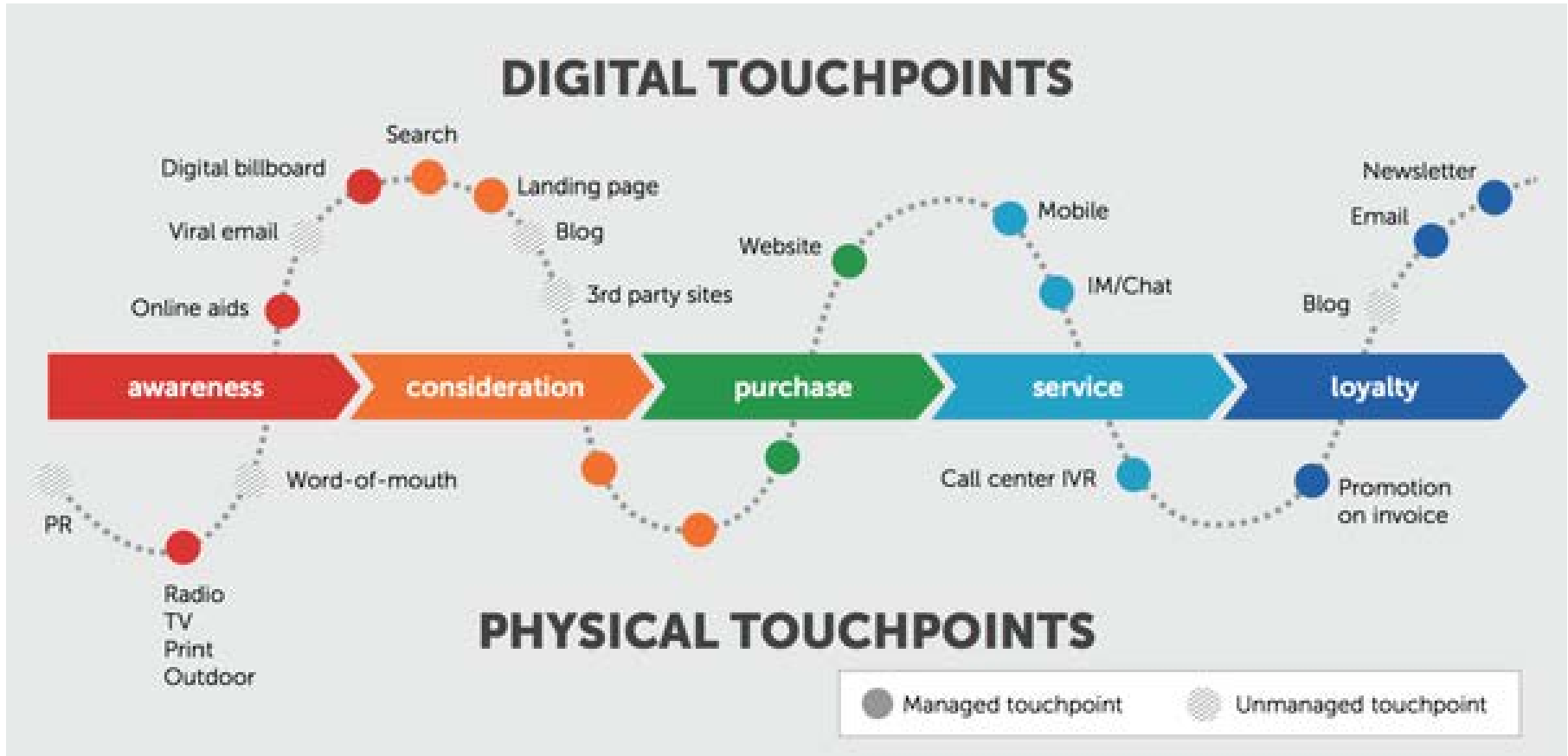
Digital Marketing is Intrusive



It's About the Consumer



Embrace The Consumer Journey



Frictionless Consumer Experience

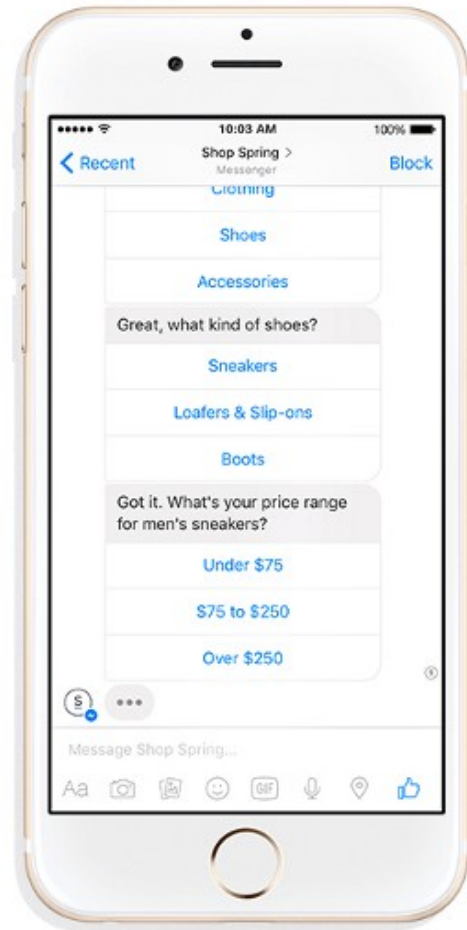
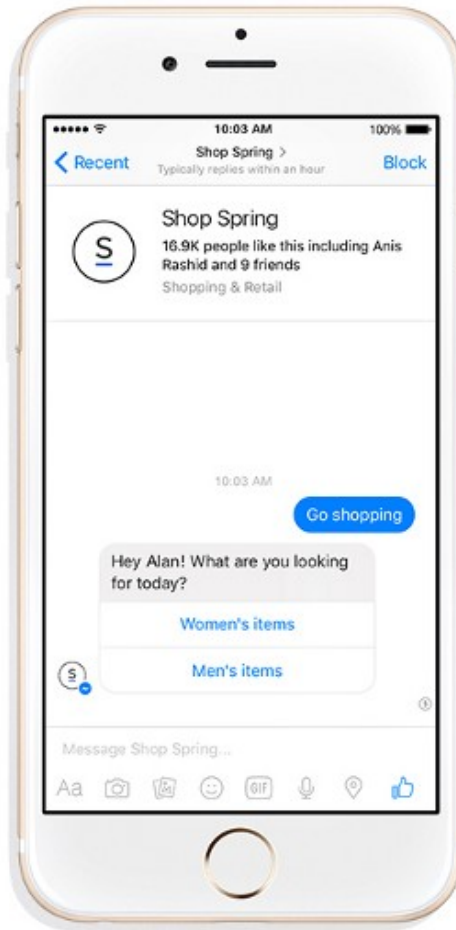
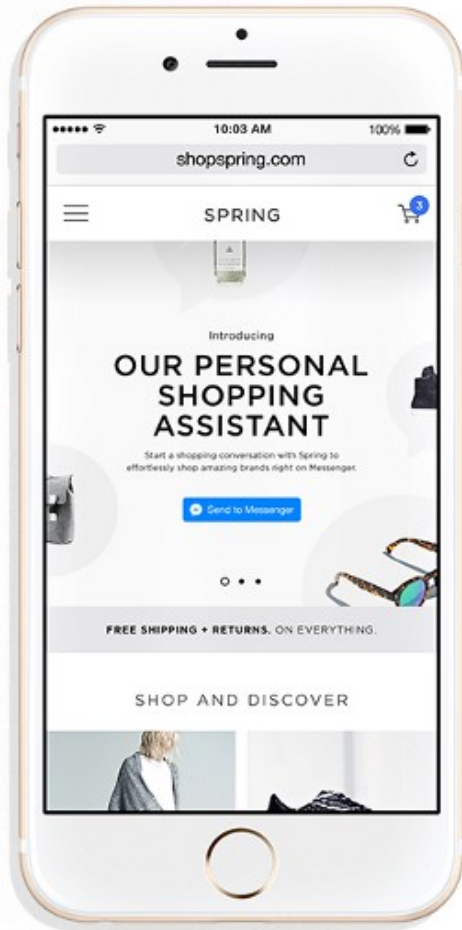


©2015 Steve Hickner – Customer Experience Rules!

A woman with curly brown hair is wearing a headband made of gold coins and stars. She is looking intensely at a glowing white orb held in her hands. The orb is resting on a red cloth. The background is dark.

DIGITAL TRENDS

Chatbots Are Here



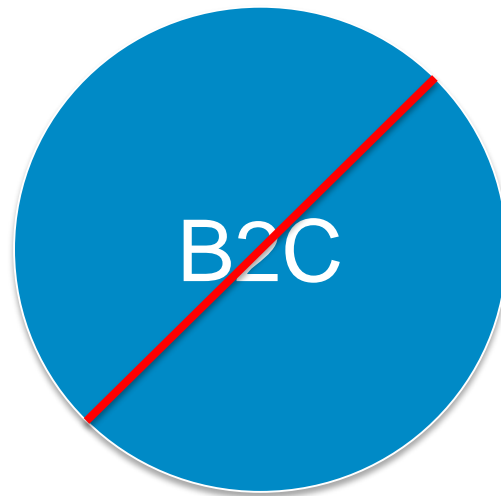
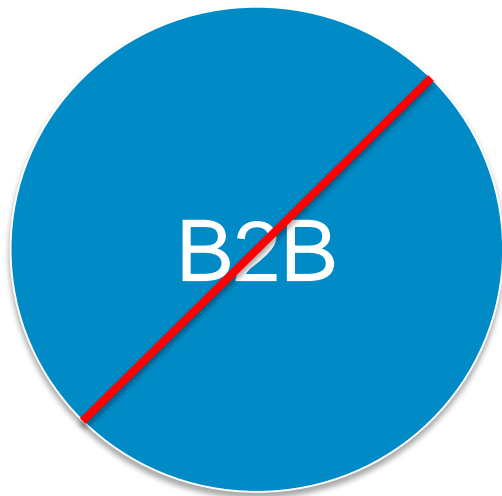
AR / VR is Mainstream



A Video First World



Communicate to Humans





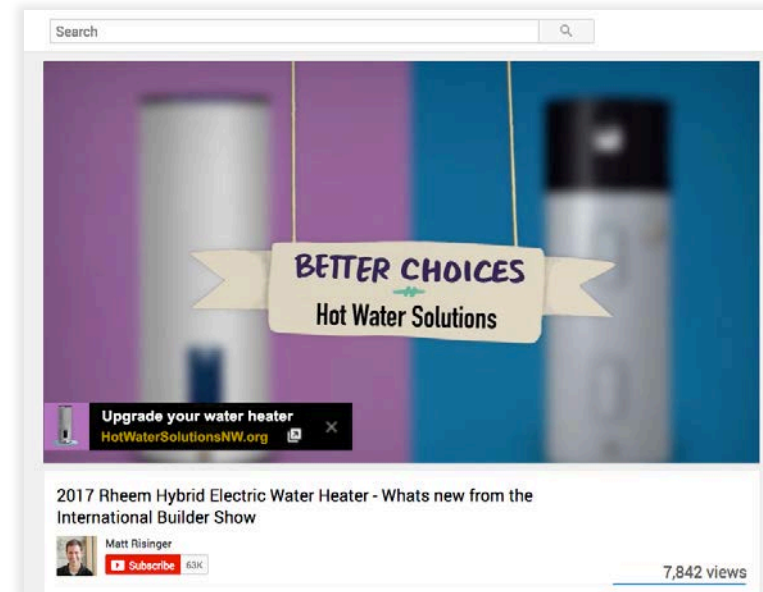
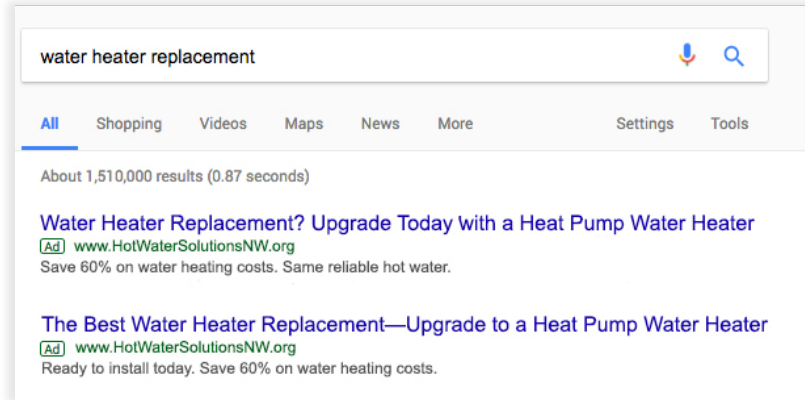
HOT WATER SOLUTIONS DIGITAL CAMPAIGN

Campaign Strategy

Target these people:

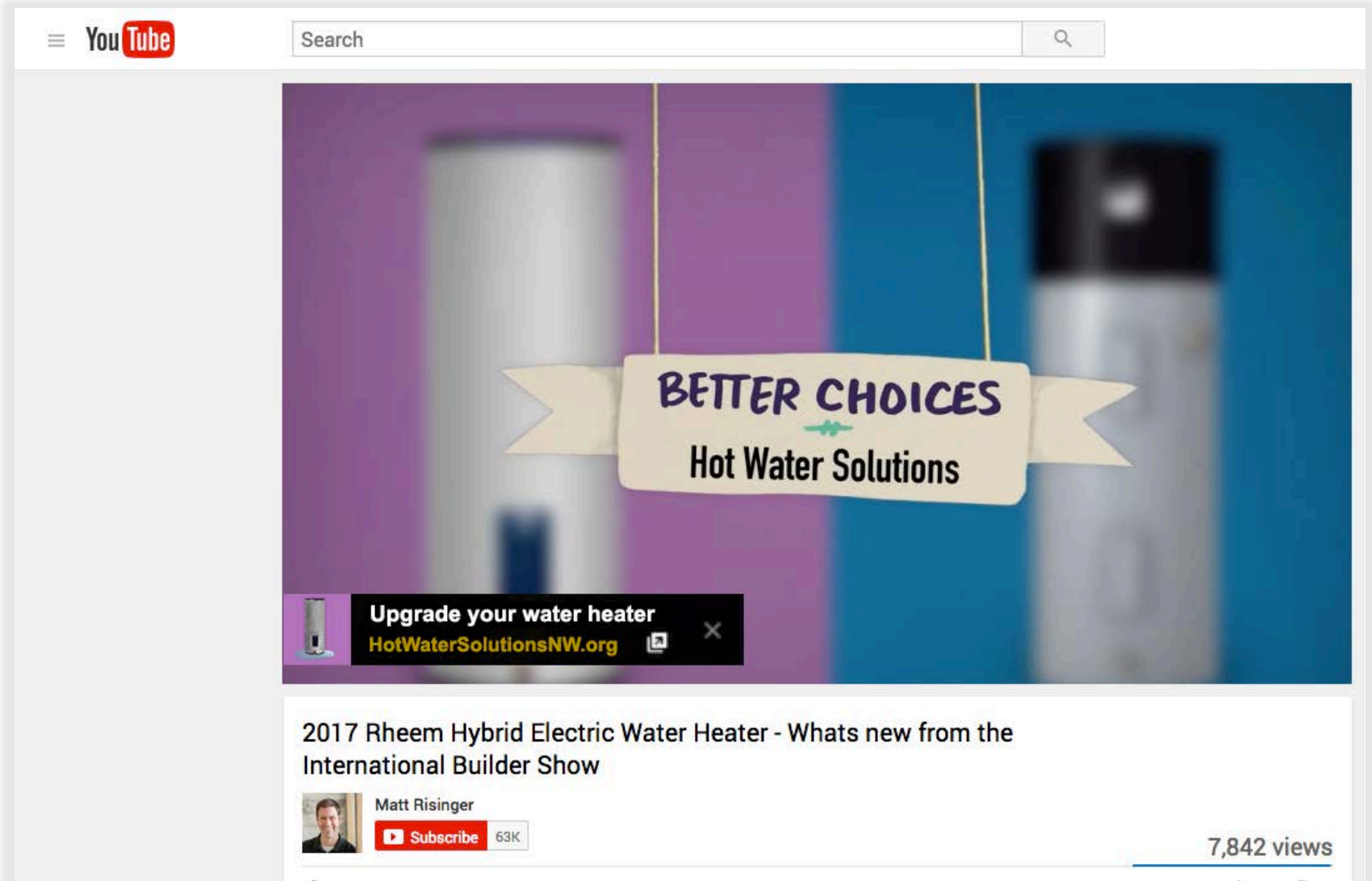


Media Channels



Relevant Creative & Targeting

Click here → <https://www.youtube.com/watch?v=m1tuiAWo59I>



The image shows a YouTube video player interface. At the top left is the YouTube logo. A search bar is located at the top center. The video content features a blurred background of two water heaters, one white and one black. A yellow banner with a ribbon-like shape is suspended in the center, containing the text "BETTER CHOICES" in a dark, handwritten-style font, with a small green leaf icon below it, and "Hot Water Solutions" in a bold, black, sans-serif font below that. At the bottom of the video frame, there is a black overlay with a small white icon of a water heater on the left, followed by the text "Upgrade your water heater" in white, and "HotWaterSolutionsNW.org" in yellow below it. To the right of the text are a small white icon of a document and a white "X" icon. Below the video player, the video title "2017 Rheem Hybrid Electric Water Heater - Whats new from the International Builder Show" is displayed. Below the title is a small profile picture of Matt Risinger, his name "Matt Risinger", a red "Subscribe" button, and a grey box containing "63K". In the bottom right corner of the video player area, the text "7,842 views" is shown.


Consumer Experience





UTILITY REBATES PRODUCT PROMOTIONS FIND A RETAILER INSTALLATION


IN A HOT WATER EMERGENCY?





Select **YOUR** Electric Utility for Information Specific to Your Area 

Zip Code [FIND UTILITIES](#) 


 Use Current Location

Need a new Water Heater?

Don't replace it, upgrade it.

A new heat pump water heater not only delivers the same reliable source of hot water, it **will also save you up to 60% on water heating costs.**

And best of all, they're ready for immediate installation.



Find an Installer

A trained heat pump water heater installer is standing by to answer any questions, and schedule an in-home appointment.

[SEARCH INSTALLERS](#) 



Find a Retailer

A retailer can direct you to the right heat pump water heater solution, and get you quickly back up and running.

[SEARCH RETAILERS](#) 



Utility Rebates

Rebates from your local utility can bring the up-front cost of a heat pump water heater down to a fraction of the retail price.

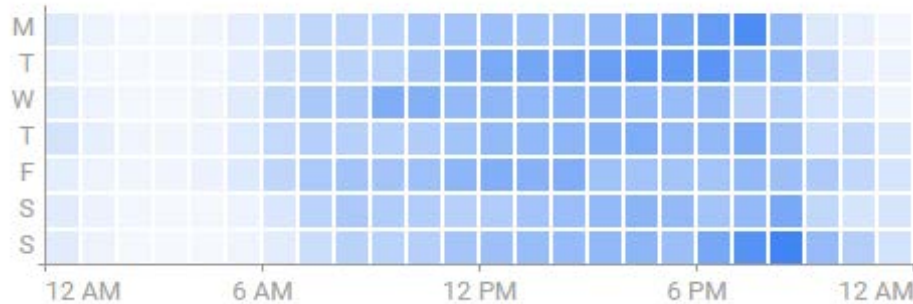
[GET REBATES](#) 

Paid Media Results

DAY

DAY & HOUR

HOUR



- 5 million impression
- 86,000 video views
- 6,000 clicks to site

Clicks ▾

11.8K

Impr. ▾

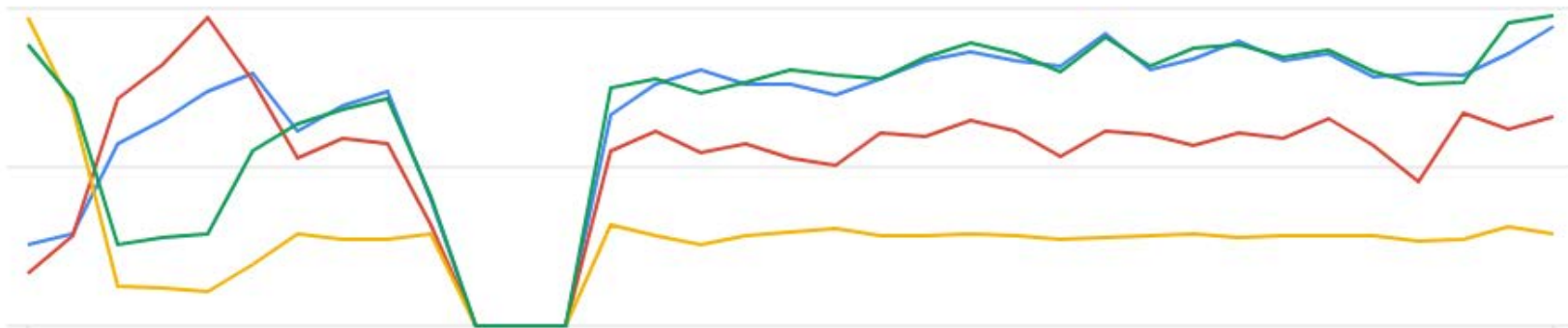
5.04M

Avg. CPC ▾

\$1.40

Cost ▾

\$16.6K

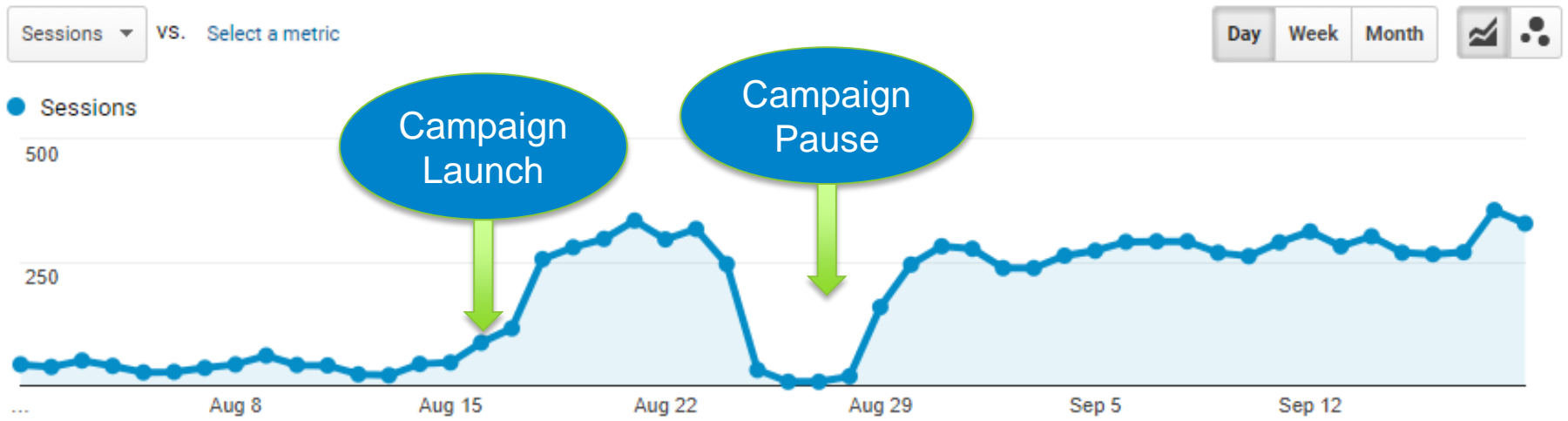


Aug 16, 2017

Sep 19, 2017

Website Results

- 4,500% increase to installer page
 - 7.2% conversion rate (clicks to installers)
- 530% increase in session
- 730% increase in new visitors
- 301% increase to retailer page
- 84% increase to promotion page





THANK YOU

Innovation to *Action*



*Lunch
is
Served*

Innovation to *Action*

*Utility
Roundtable
Share Out*



Innovation to *Action*



October 12, 2017



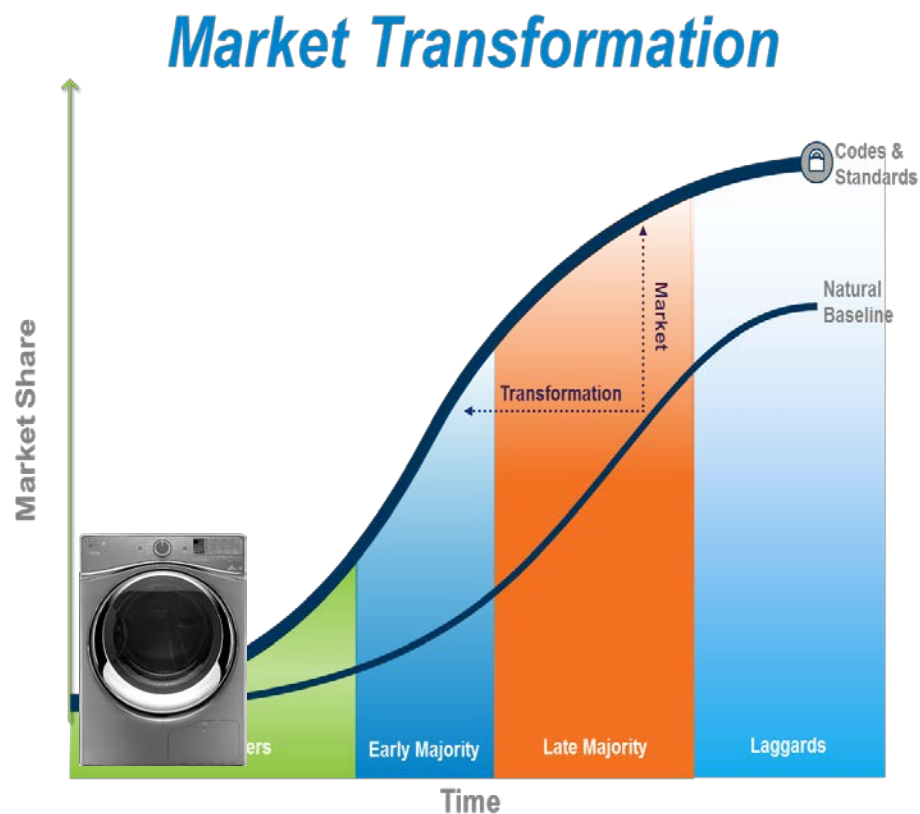
Super-Efficient Dryers

Stephanie Baker, Program
Manager

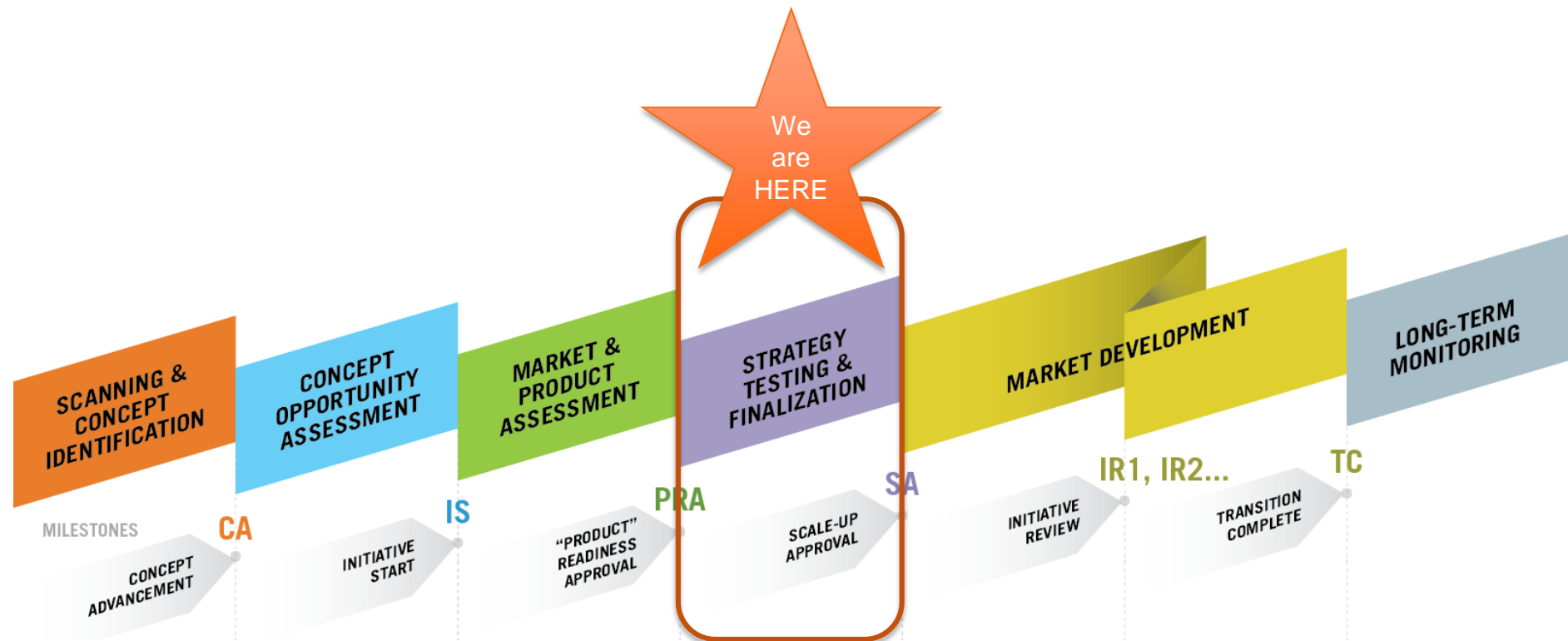


Initiative Theory and Status on the S-curve

Develop a specification to influence manufacturer product development and execute strategies to overcome **high incremental cost, consumer awareness** and **product availability** to accelerate market adoption of super-efficient dryers and influence improved federal test protocols and enact more stringent federal efficiency standards (requiring heat pump technology) for residential clothes dryers.



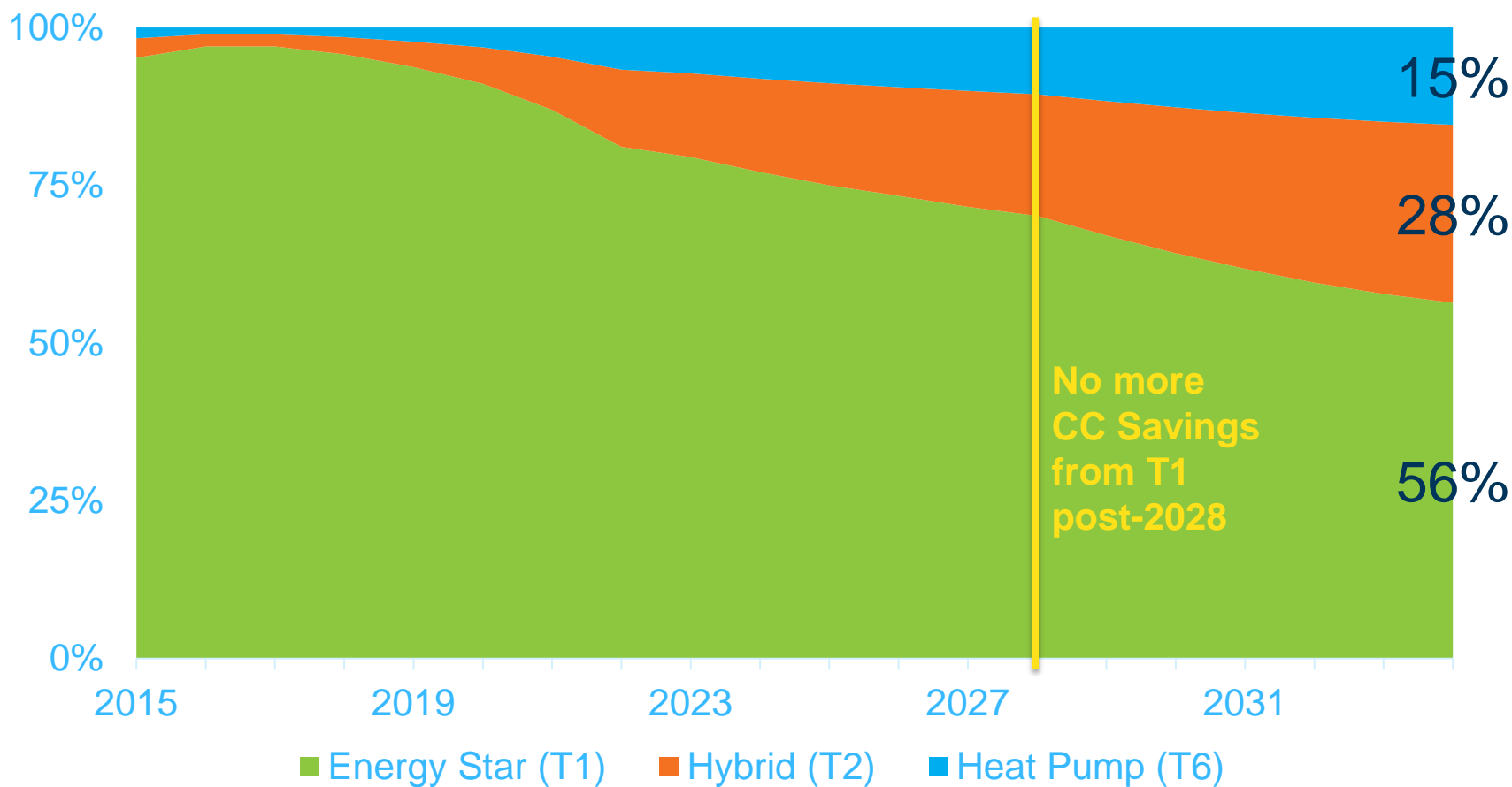
Initiative Lifecycle



Desired Outcomes

- RAC members are informed about recent RTF decision re: ENERGY STAR savings
- RAC members are informed about NEEA's data collection plan to validate ENERGY STAR savings
- RAC members have the opportunity to discuss the situation and provide input into NEEA activities

Proportion of Cumulative CC Savings by Tier



Is it going to be okay?

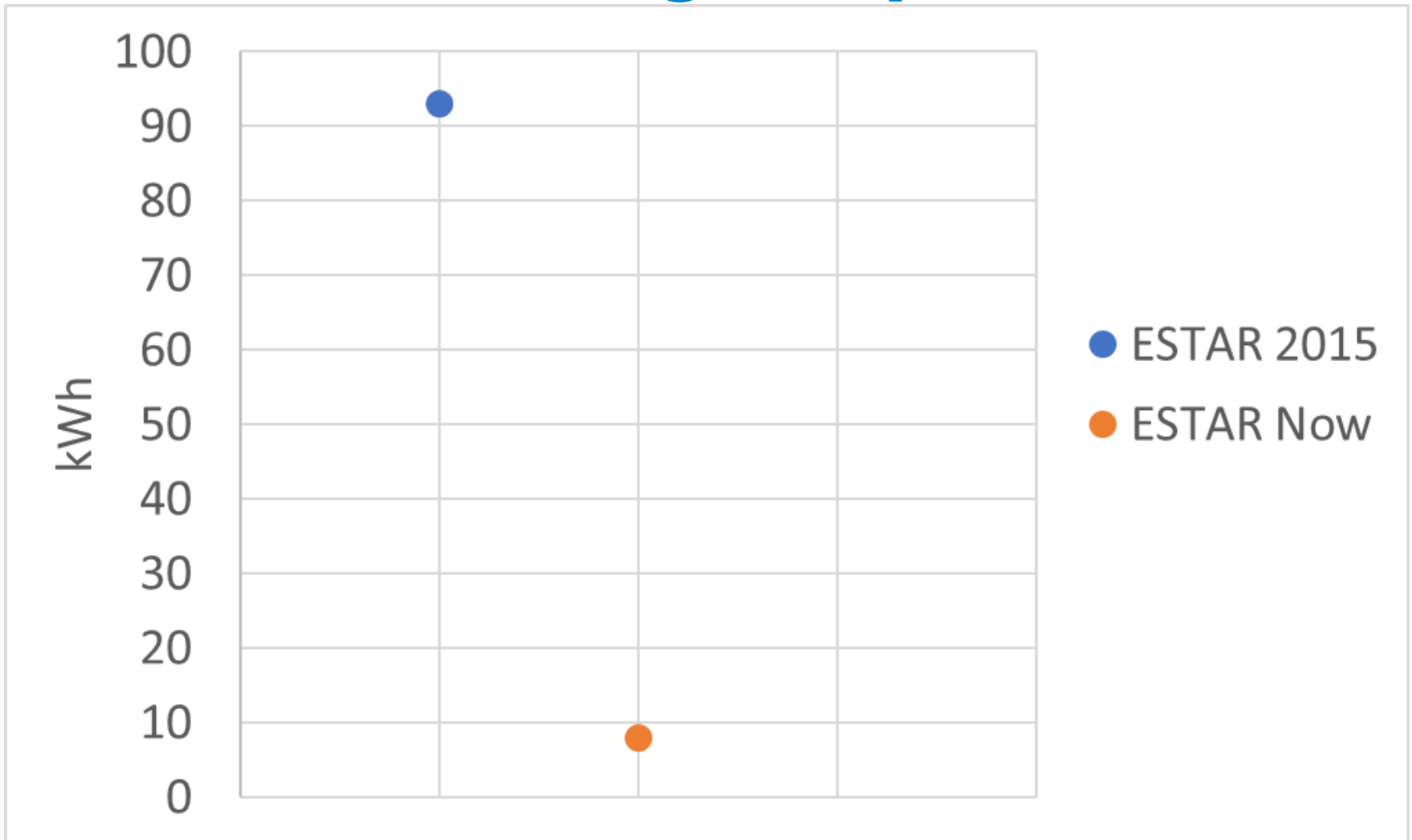




Boring Graph



Boring Graph



***It IS going
to be
okay***

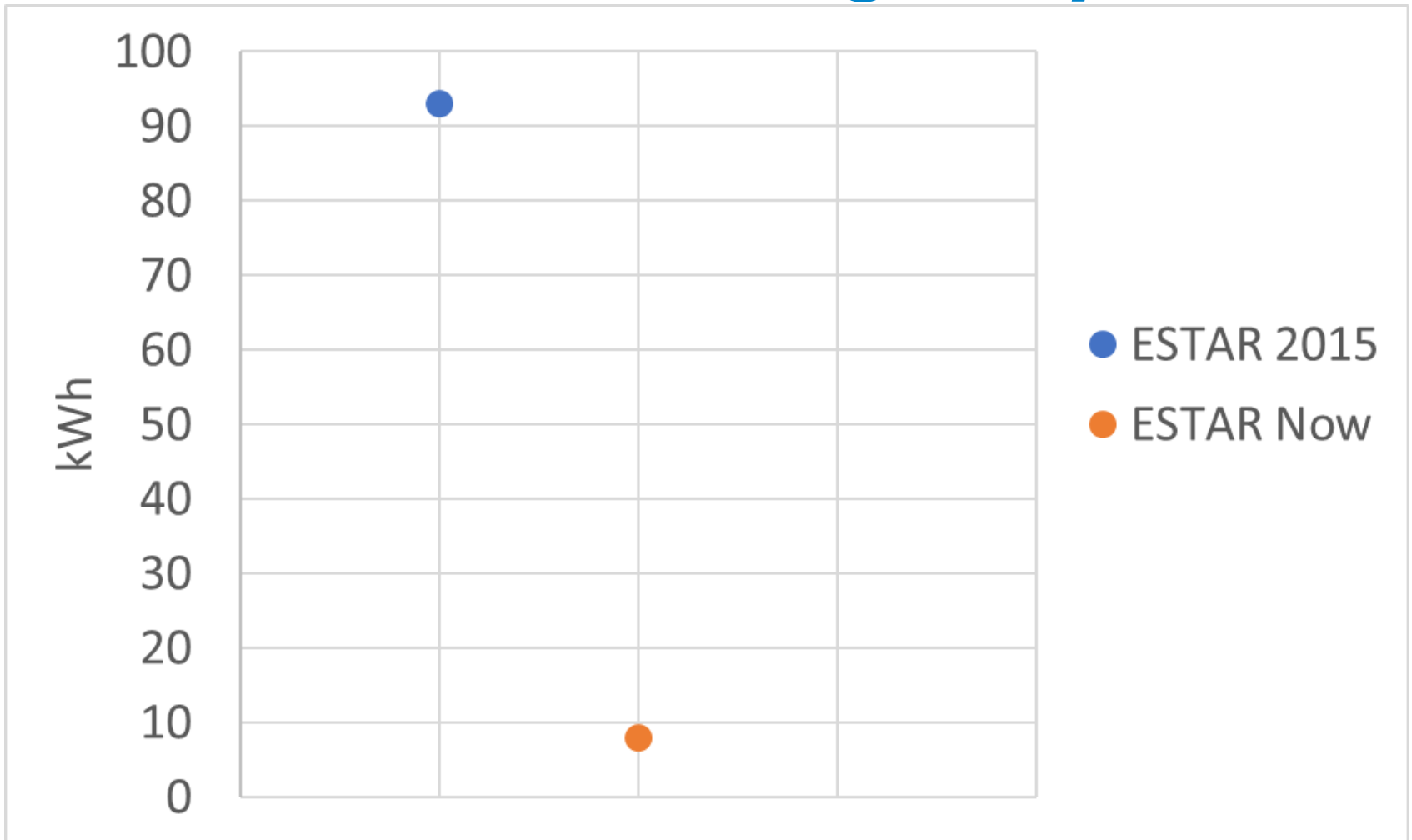


ENERGY STAR help

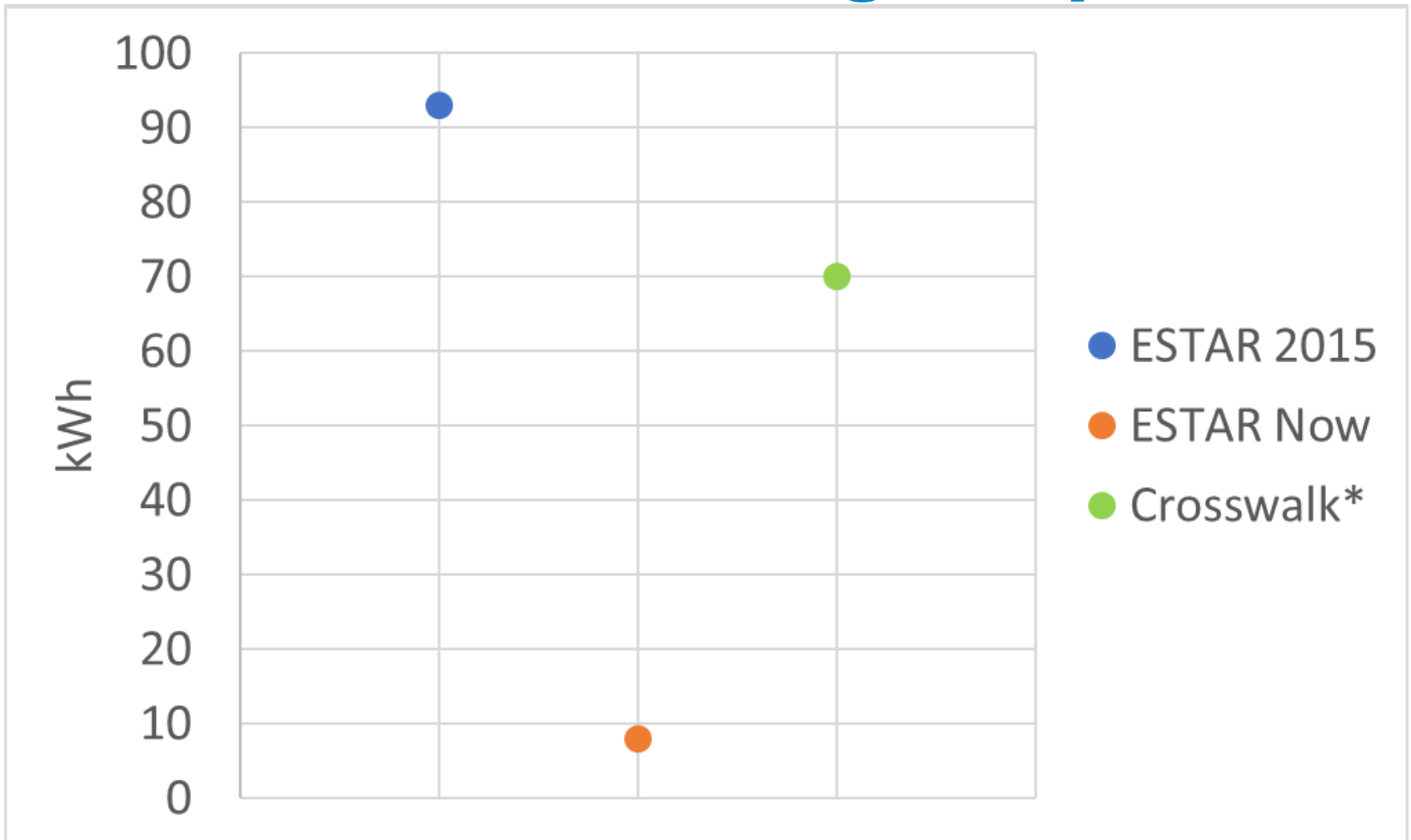


- Partnership
- Crosswalk
- Caveat
- Disclaimer
- Fine print

Another Boring Graph



Another Boring Graph





Research Plan

This is changing

- 12 dryers
 - 6 ENERGY STAR
 - 6 Non-ENERGY STAR
- Sampling Plan TBD

RTF Engagement

- Multiple rounds of feedback already
- Research & Evaluation Subcommittee - Today
- Full RTF – October 17
- Future Measure Update - ???

The future





Q&A

Thank You

Stephanie Baker
sbaker@neea.org

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October 12, 2017



Residential Advisory Committee: Next Step Home(s) Update

Neil Grigsby
Portfolio Program Manager



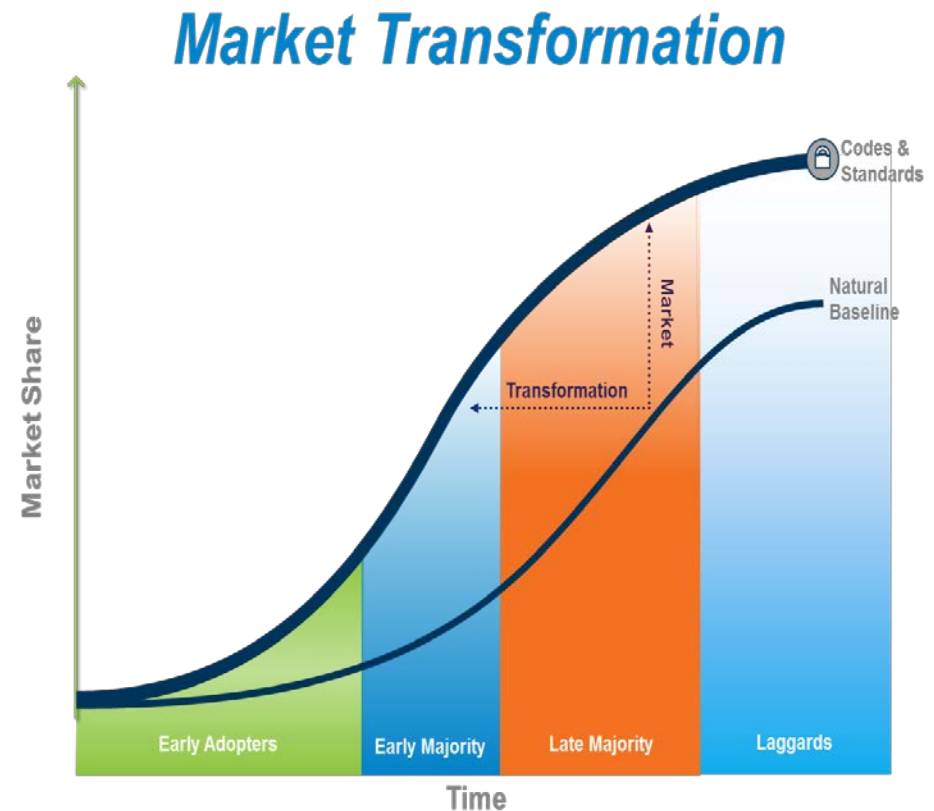
Today's Agenda

1. Review Strategy Testing & Finalization phase
2. Look ahead to Market Development



Initiative Theory and Status on the S-curve

- Increase market adoption of energy-efficient advanced building practices for single-family homes
- Influence and accelerate future code adoption in each state



Program Review

Review Market Test activities and Market Development plan.

1. Performance Based Programs
2. Home Certification Program Coordination
3. Training Development and Delivery
4. Next Step Home Pilot Project
5. Marketing

Strategy Testing & Finalization: Market Test

Market Test Objectives



1. Create a regionally accepted standard modeling protocol
2. Enable a modeled home to produce validated energy savings
3. Develop utility programs based on home energy modeling

Key Questions

KEY QUESTIONS	RESULT
Will the Regional Technical Forum (RTF) approve a standard modeling protocol for home energy ratings?	✓ Yes – RTF approved the residential new construction standard modeling protocol December 2016
What is the protocol structure that utilities need to design programs around home energy modeling?	✓ BPA calculator, Axis database and inclusion in Implementation Manual
Will other market actors (builders, developers, Raters/Verifiers, home certification programs) adopt a modeling protocol?	✓ Yes – Phase II NSH Pilot homes, home certification alignment, market participation in utility programs

Important Learnings

1. Leverage existing market instead of just relying on utility programs
2. Rater accuracy and modeling is important
3. Voluntary programs are critical to code progress
4. Builders can achieve above code performance in a variety of ways
5. Aligning with CCE where possible will create efficiencies and consistency



Challenges



1. Regional agreement on a standard protocol for new homes: 2+ year effort
2. Pilot Homes
3. Additional infrastructure to support utility programs

Market Development

Key Focus

Directly Influence the Code Process by:



Leveraging existing code collaboratives in each state



Identifying long-term code targets



Implementing interventions that support the adoption of advanced measures

2018 Goals



CODE PROCESS

Integrating with the Residential Code process

- Commercial Code Enhancement
- Market Assessments (State Action Plan)

UTILITY PROGRAMS

Performance Path adoption

MARKET SUPPORT

- Rater infrastructure
- Home certification program coordination

Key Internal Dependencies



CODE

- Working with established code collaboratives
- Preparing code proposals

HEAT PUMP WATER HEATERS

- Targeting residential new construction builders

NATURAL GAS

- Gas savings available through performance path

CEE And Code

Program Synergies

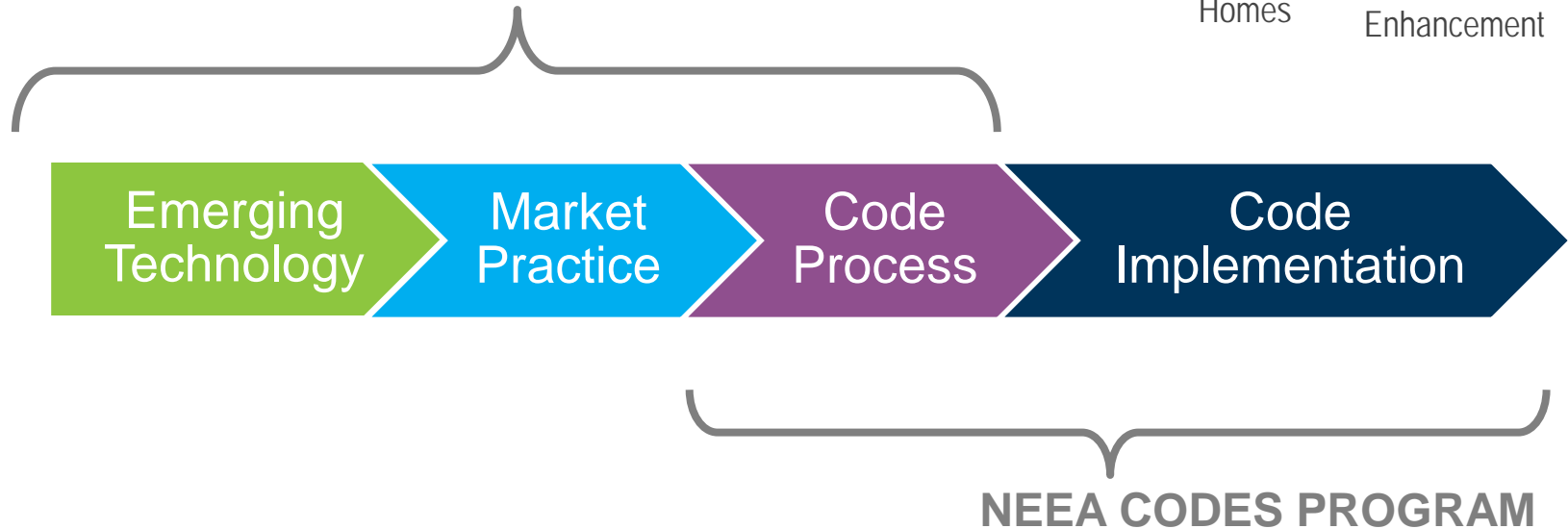
NEW CONSTRUCTION PROGRAMS:
Creating efficiencies and delivering consistent message to the market



Next Step
Homes



Commercial Code
Enhancement



Program Synergies



GOALS

- Supporting progressively more effective codes

LEVERAGE POINTS

- Code collaboratives

TACTICS

- State coordination plans
- Demonstration projects
- Technical assistance, tools and resources

Key Distinctions

	Commercial	Residential
Market Influencers	<ul style="list-style-type: none">• Architects, engineers	<ul style="list-style-type: none">• Builders, raters
Evidence to support code change	<ul style="list-style-type: none">• Proof-of-concept• <i>'Does it work?'</i>	<ul style="list-style-type: none">• Market adoption through voluntary programs• <i>'Is enough of the market doing it?'</i>
Utility Programs	<ul style="list-style-type: none">• NEEA does not directly support utility programs	<ul style="list-style-type: none">• NEEA manages regional utility program infrastructure

A large, stylized diamond shape composed of several overlapping, semi-transparent layers of a dark purple color. The diamond is centered on the page and serves as a background for the title text.

Inside Baseball

Director Feedback

- Look at CE of future codes in each state
- Develop long term code road maps
- Determine Exit Strategy

Feedback, Questions, Discussion

Thank you!

Neil Grigsby
ngrigsby@neea.org

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Innovation to *Action*



Public Comment





Thank You Chelan PUD for Hosting!

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