

A man and a woman are smiling and looking at a smartphone together. The man is in the foreground, wearing a light blue button-down shirt over a white t-shirt. The woman is behind him, leaning her head on his shoulder, wearing a light-colored top. They are both looking at the phone held in the foreground. The background is a bright, out-of-focus indoor space with large windows.

Finding the Near Term Safe Value Propositions

**In this rapidly changing
customer engagement
and influence game**

Joel Gilbert, P.E., President
APOGEE INTERACTIVE
October 19, 2017

Quick Summary of Apogee

25

years in business

Serving 600+ utilities

*“Apogee’s Customer Engagement Platform is **the most comprehensive in the industry.***

*It reaches customers in so many ways by educating and providing **personalized** and meaningful information to change behavior while providing utility clients with **business analytics** to make good business decisions.”*

NAVIGANT® 2015



Today's Agenda: Find the Near Value

- Use billing histories and smart meter data if available.
- Find best candidate homes for HVAC upgrades?
- Identify home retrofit performance contract homes?
- Which homes are the best DR candidates?
- Who might pay extra for home monitoring services?
- How can these analytics be used to actively engage these consumers and produce value today?

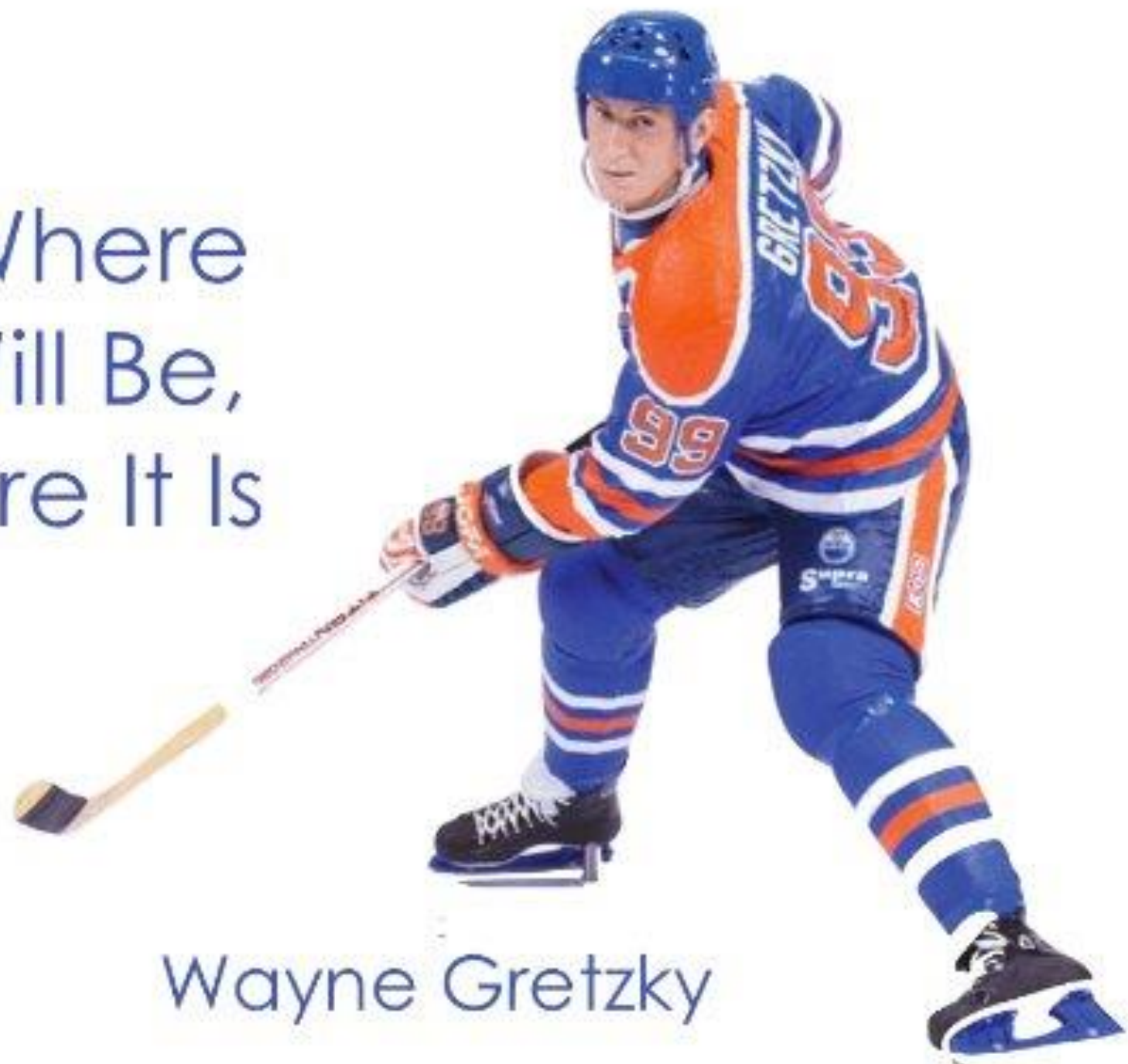
Your Presenter Today: Joel Gilbert



BS and MS in Chemical Engineering
MS in Operations Research and Statistics
Rensselaer Polytechnic Institute
Licensed Professional Engineer

6 years nuclear attack submarine power plants
6 years at the Hospital Assoc. of NY State
6 years at MTI advance heat recovery systems
30 years serving the Energy Utility Industry

I Skate To Where
The Puck Will Be,
Not To Where It Is



Wayne Gretzky

What are your Company Goals Now?

- Improve EE and DR results
- Reduce Operating Costs
- Seek “Utility 2.0” Relationships
- Increase Customer Satisfaction
- Increase Revenues and Margins

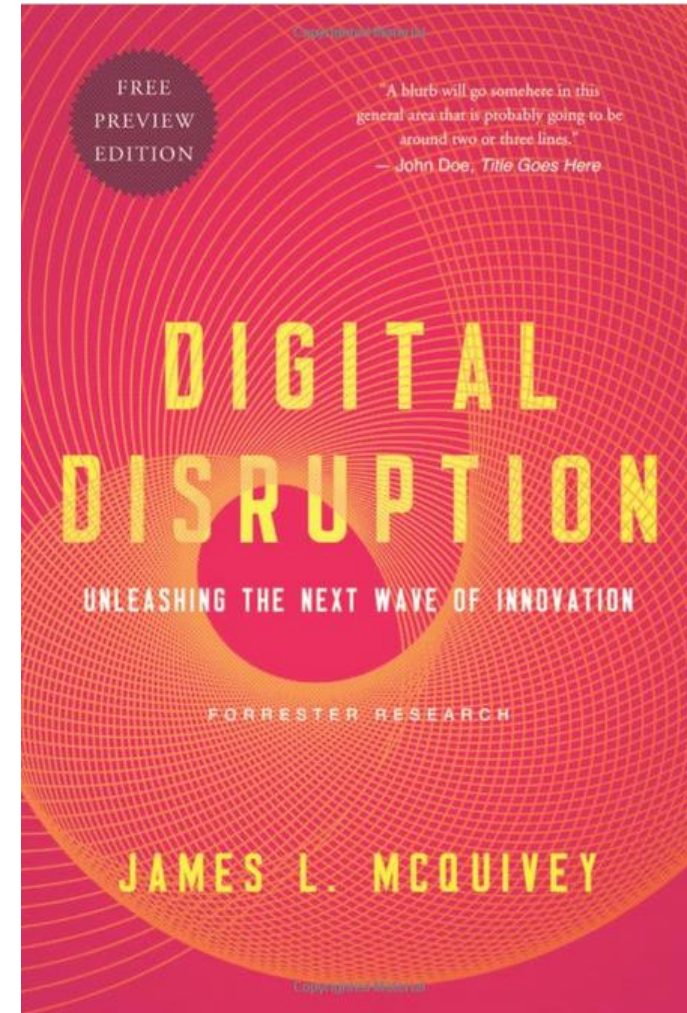
A photograph of a large, dark brown pile of horse manure on a green grassy field. A wooden sign with the words "HORSE DUNG FOR SALE" is stuck into the pile. The sign is made of two pieces of wood, with the top piece having the words "HORSE DUNG" and the bottom piece having "FOR SALE". The sign is mounted on a white wooden post. The background is a lush green lawn.

HORSE DUNG
FOR SALE

Attitudes Matter

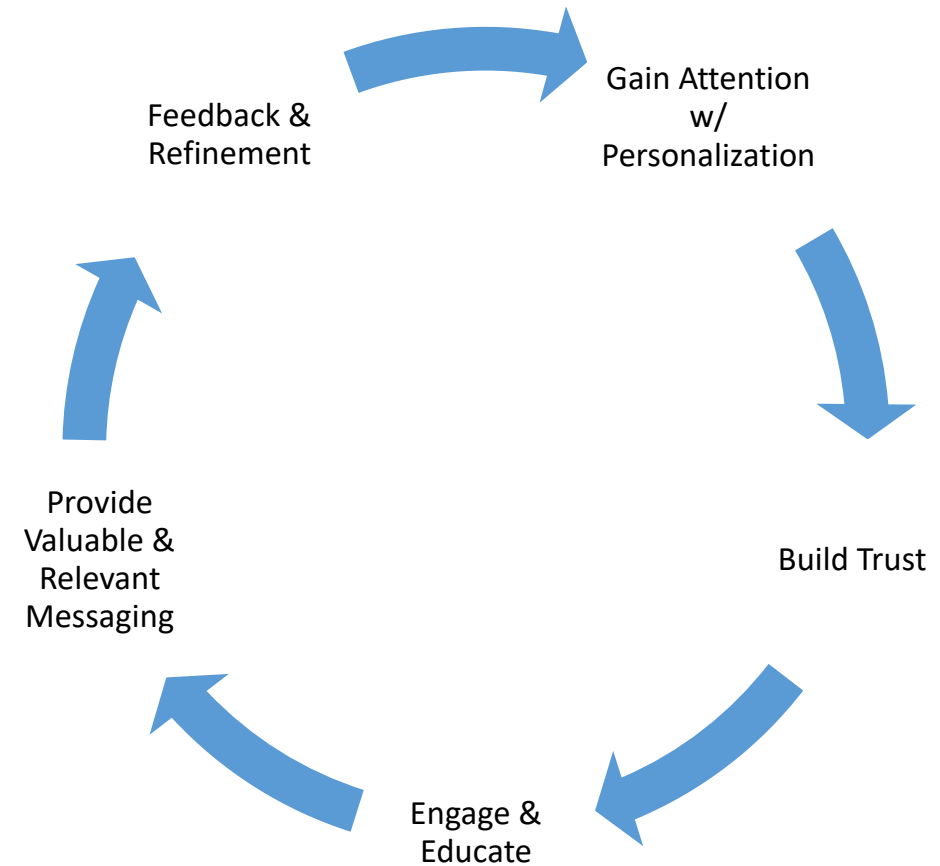
And Your Organization Matters

- Short term goals
- Senior Exec liaison
- Two Pizza Rule
- Short deadlines
- Avoid RFPs use RFIs
- Disband & restart



Digital Engagement Strategy Cycle

- Gain Attention w/ Personalization
- Build Customer Trust Using
 - Accurate savings predictions
 - Relevant to customer priorities
- Choose the right channels and strategies
 - Personalized, Outbound, Proactive
 - Using Video where appropriate
- Use Weather Paradigm to deliver messaging
- Mid-Cycle Bill Alerts proactive and relevant
- Use Feedback assuring quality & effectiveness



What is holding you back from this opportunity?

- Not sure where the opportunity is
- No budget for serious data warehouse capability
- No staff with skills or time availability
- Management is still not convinced of the business case
- All of the above

Stop Talking “Energy Speak”

Lesson: Don't talk about kWh or therms, use dollars and degrees!



Social Marketing Management

shoutlet, SYNAPSE, vitrue, involucr, hootsuite, Social Publishing Platforms, Flowtown, Spredfast, awareness, tweet, tapli, Socialware, hearsay, MUTUALMIND, SPROUT SOCIAL, offerpop, Social Promotion Platforms, Social Amp, Seesmic, Strutta, votigo, SocialAppsHQ, extole, Fanzila, NORTH SOCIAL, Zuberance, BzzAgent, CalmSea

URL Shorteners

bitly, tiny arrows, TinyURL.com

Stream Platforms

UberMedia, TweetDeck, twirl, Aol Lifestream...

Twitter Apps

twitpic, tweetmeme, StockTwits, Cadmus, wefollow, flixup!, Listorious, twitvid

Facebook Apps

LIKESTER, BranchOut, SNAP, badoo, smile, causes, booshaka

Facebook Gaming

playfish, zynga, MetroGames, Playdom, Kaban, CrowdStar, ZAPZAPPLAY, socialpoint, DIGITAL CHOCOLATE, EA, UBISOFT, WILDNEEDLEGAMES, PopCap

Social Advertising Platforms

TBG, Lexity, spruceMEDIA, Adapty, Clickable, BLINQ MEDIA, epic social, SOCIALTYZE, GRAPH EFFECT, 12f, twelfoldmedia, SAM, nanigans, Taykey, Ybrant, KENSHOO, Marlin, EfficientFrontier

Social Brand Engagement

socialvibe, mylikes, adly, local response, appsavvy, 140 Proof, DYNAMIC SIGNAL, sharethrough

Social Commerce Platforms

Payment, Moontoast, SHOP TAB, live gamer, dotbox, muncom, Moluko, trialpay, Storenvy, FLUID, shop igniter, VendorShop, ecwid, milyoni

Social Ad Networks

OneRiot, rockyou, across, LIFESTREET, radium, XGRAPH, media6degrees, GNIP, Social Data, DATASIFT, RapLeaf

Social Search & Browsing

TOPSY, wink, Aardvark, StumbleUpon, greplin, spokeo, WHOS TALKIN

Social Intelligence

PostRank, ATTENTION, VISIBLE, evolution, bottlenose, syntusio, systemos, brandprotect, trackur, scoutlabs, backtype, radian, ALTERIAN, conversion, NETBASE

Social TV

PHILO, mix, miso, TO-NOW, linkin, my, friend.ly, goia

Social Networks - Other

friendster, my, friend.ly, goia

Social/Mobile Apps & Games

Places, ingmoco, Swipely, Zapply, LOCKERZ, PPLY, giftika, kobacole, Giantnerd, Zapply, Zapply, LOCKERZ, PPLY, giftika, kobacole

Social Shopping

Giantnerd, Swipely, Zapply, LOCKERZ, PPLY, giftika, kobacole

Content Sharing (Reviews/Q&A/Docs)

topix, digg, fotopedia, slideshare, velp, Aggie's list, Scribd, DocShare

Social Business Software

page, with, ven, ingage, satisfaction, LeverageSoftware, Pluck, TickApps, mZinga, Assistly, huddle, Internal (Employee) Facing, TWiki, cubetree, acquia, IGLOO, yammer, chatr, moxie, Socialtext, nimble, SOCIALCAST

Community Platforms

WordPress, Squarespace, Joomla!, Jux, Blogger, posterous, mixxt, Groupsite

Plug-ins/Widgets

tynt, Bazaarvoice, gigya, Badgeville, ShareThis, spinback, janrain, clearspring, meeb, PowerReviews, Mass Relevance, widgetbox, 3333factory

Traditional Publishers

DAILY CANDY, CNN, The New York Times, Glam Media, THE WALL STREET JOURNAL, HEARST corporation, Aol, CONDÉ NAST

The search for Relevance
Why visit YOUR website?

The search for Relevance Why visit YOUR website?

Think POP Messages:

- Personalized
- Outbound, and
- Proactive

WHAT COULD CHANGE THE RULES OF THE GAME?



Michael Wolf: “Everybody’s fighting for somebody’ else’s time.” The most fertile ground is the digital voice assistant found in smart speakers and smartphones.



Eco Bee and the Amazon Echo (“Alexa”)

AI is here now in some forms

- **Ask Alexa to “chat”**
- **Or, explain my bill**

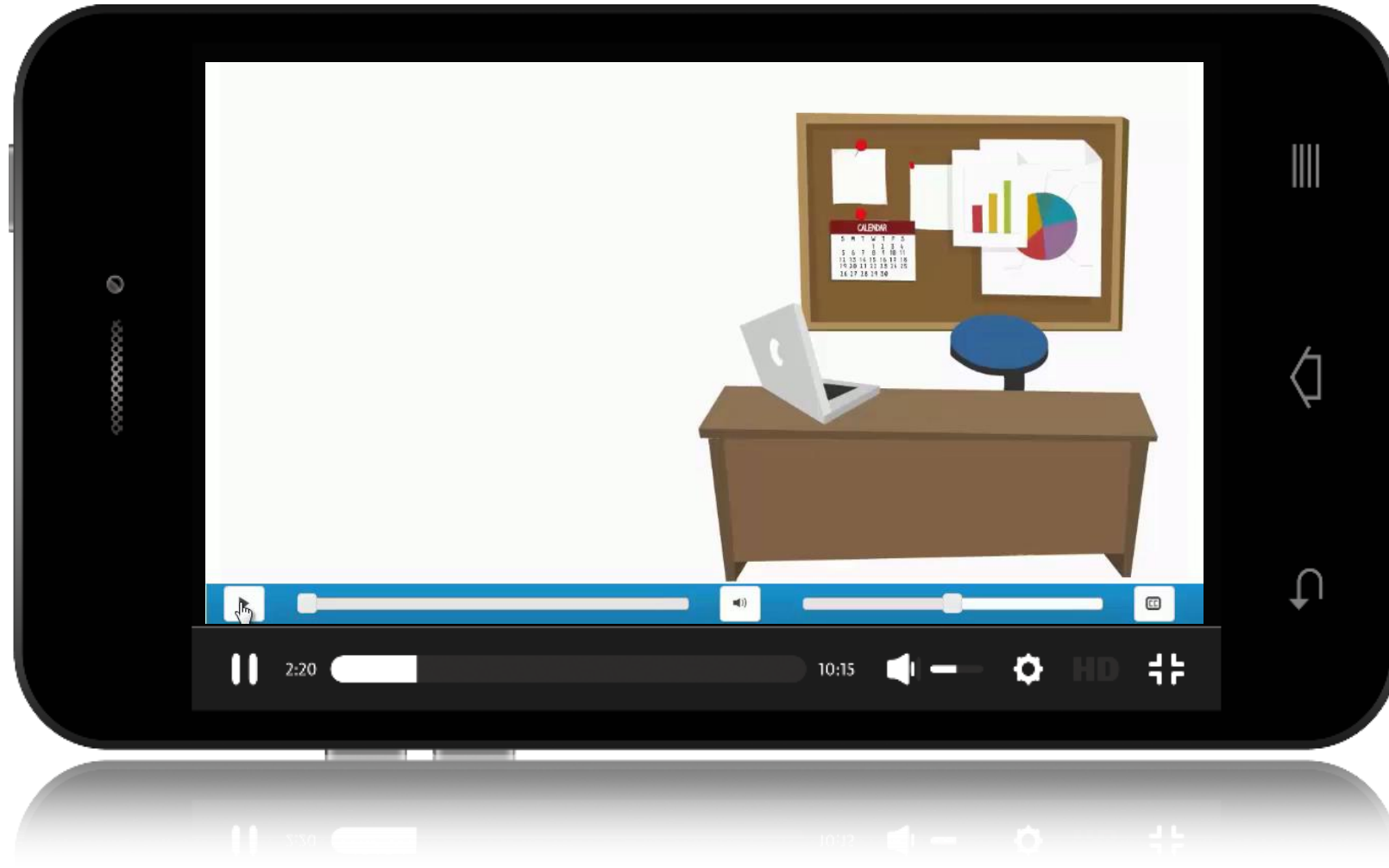




What can you do with Bills alone?

- Year long batch of bills with zip codes
- Correlate them against the local weather
- Extract the heating and cooling energy
- Filter out the anomalies (transients/rentals)
- Back infer the Tstats for heating and cooling
- Sift, sort and present in CDF formats
- Sift, sort and present in geospatial formats

Personal Video Messaging...Bill Explanation



SURVEY SAYS..

Sending monthly

46% Open Rate

30% Click-thru Rate

97% Easy to Understand

90+% Useful

Ideal Frequency

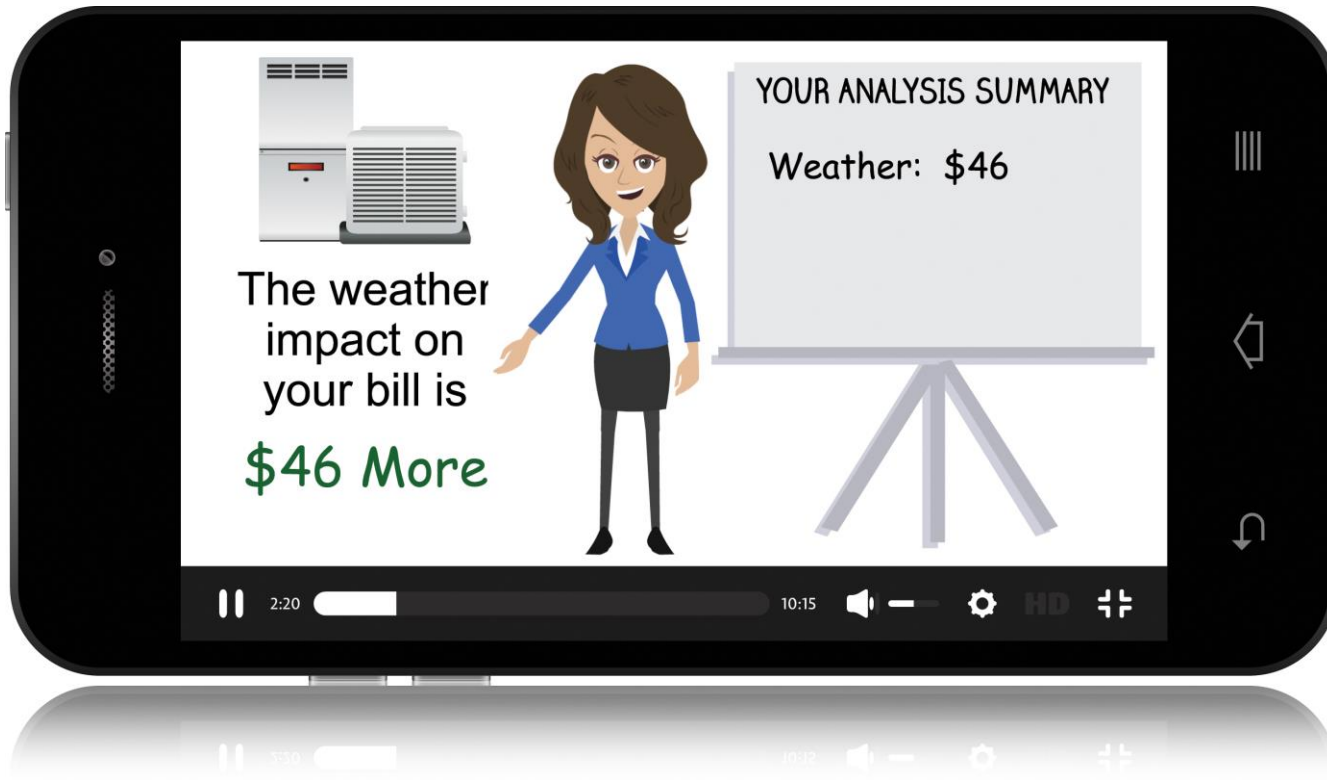
72% Monthly,

27% Quarterly

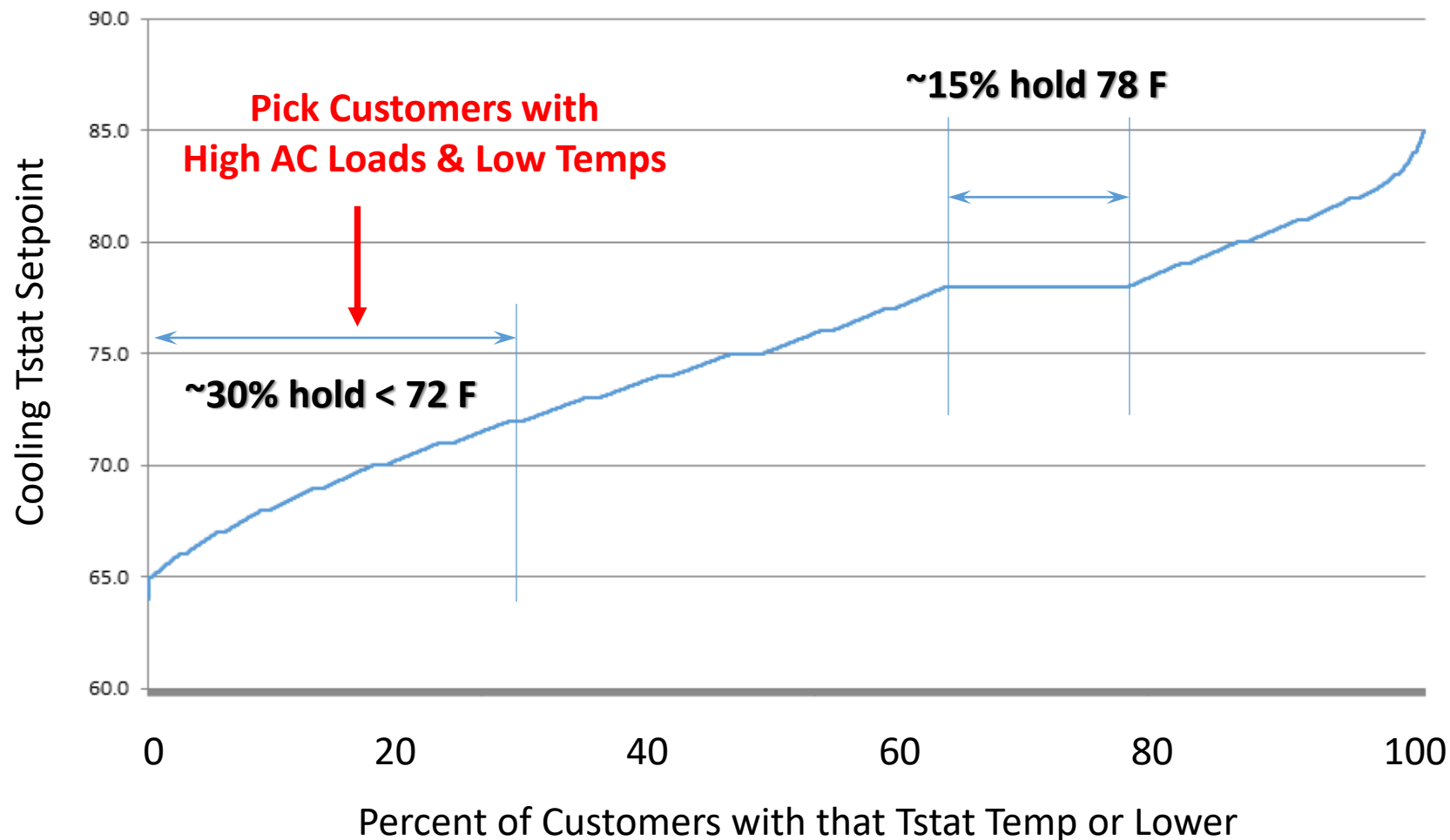
99%

1,000s wrote verbatims

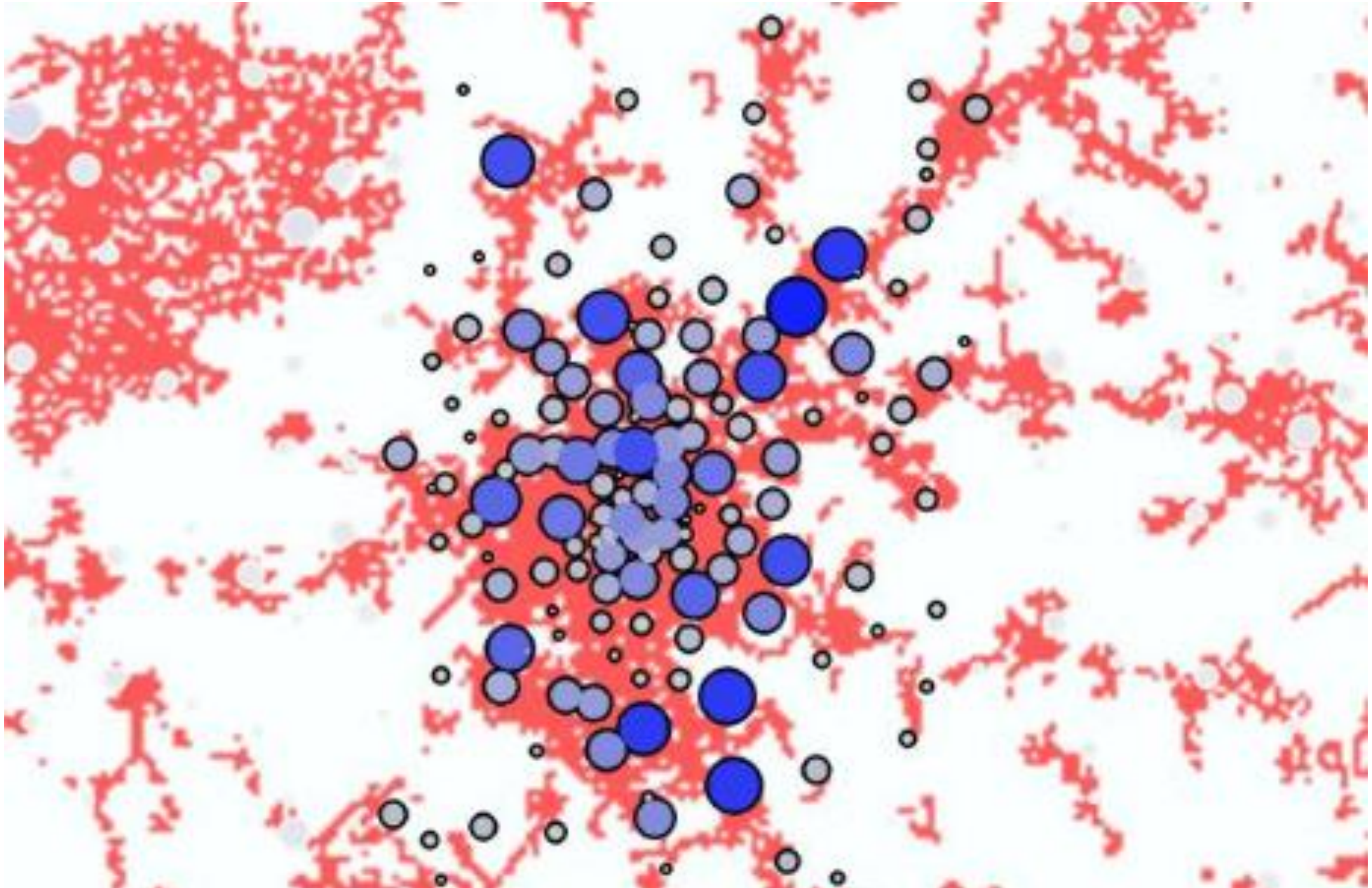
99% extremely positive



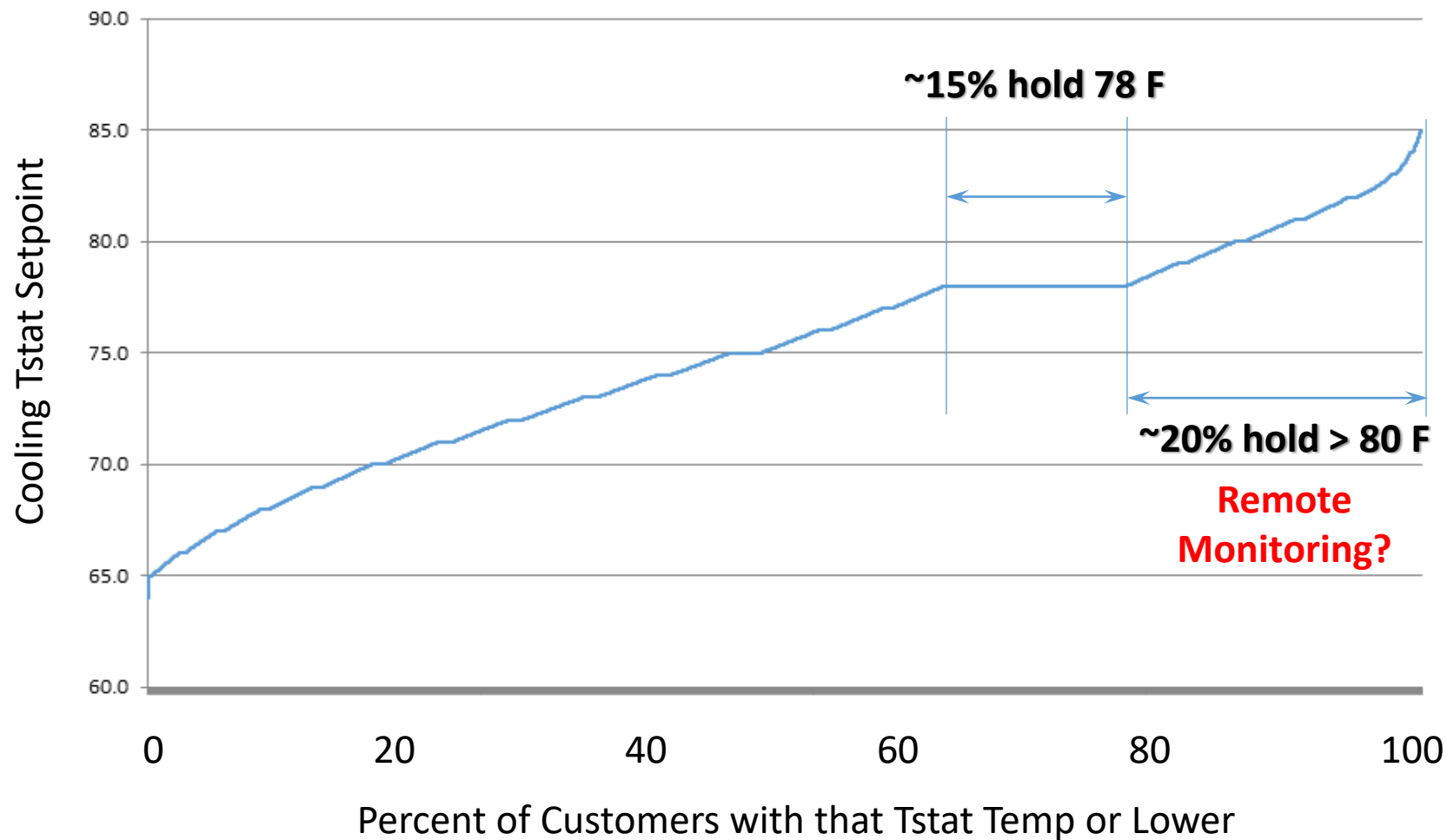
Example Cooling Analysis Results



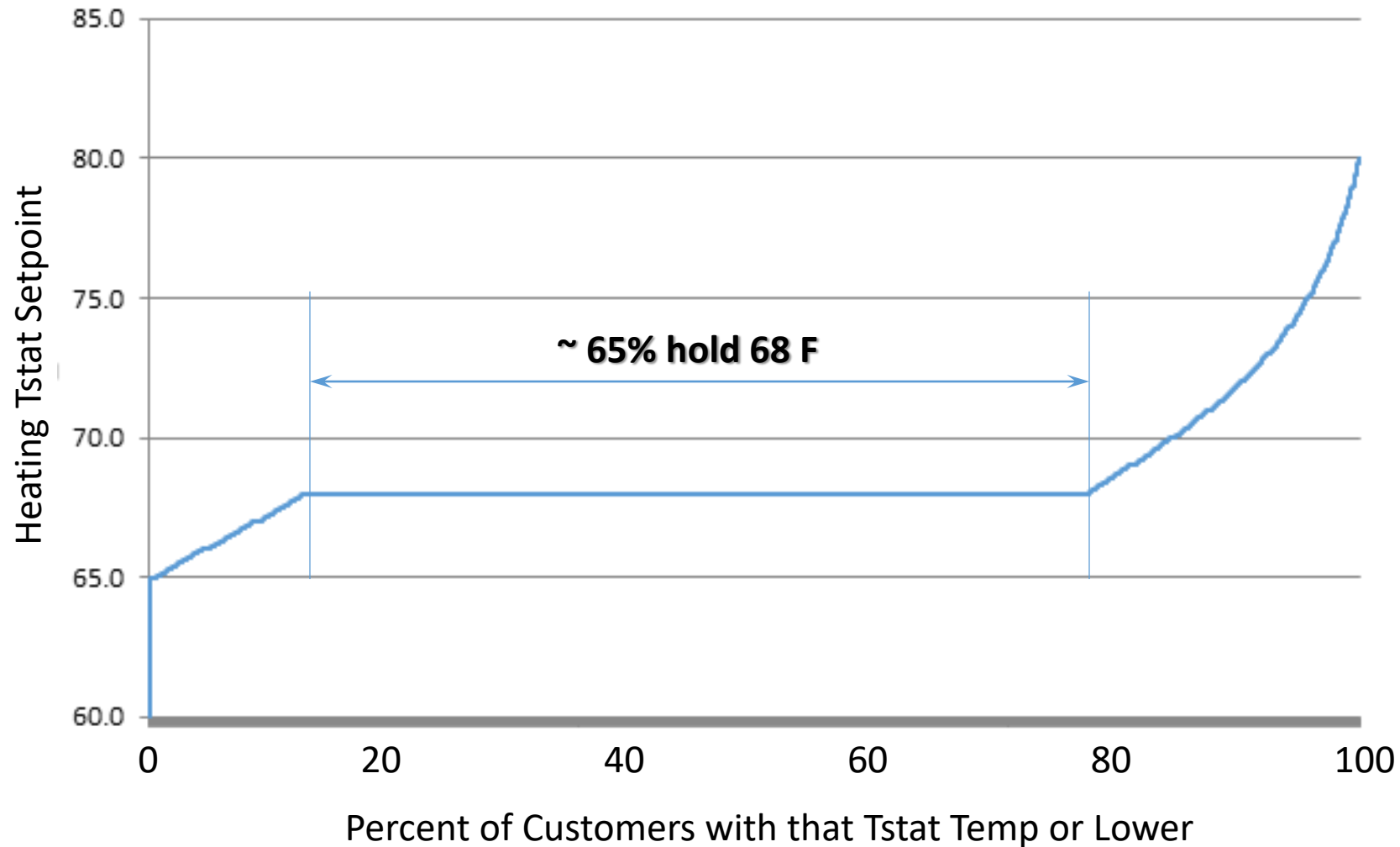
Target Feeders/Substations



Example Cooling Analysis Results



Example Heating Analysis Results

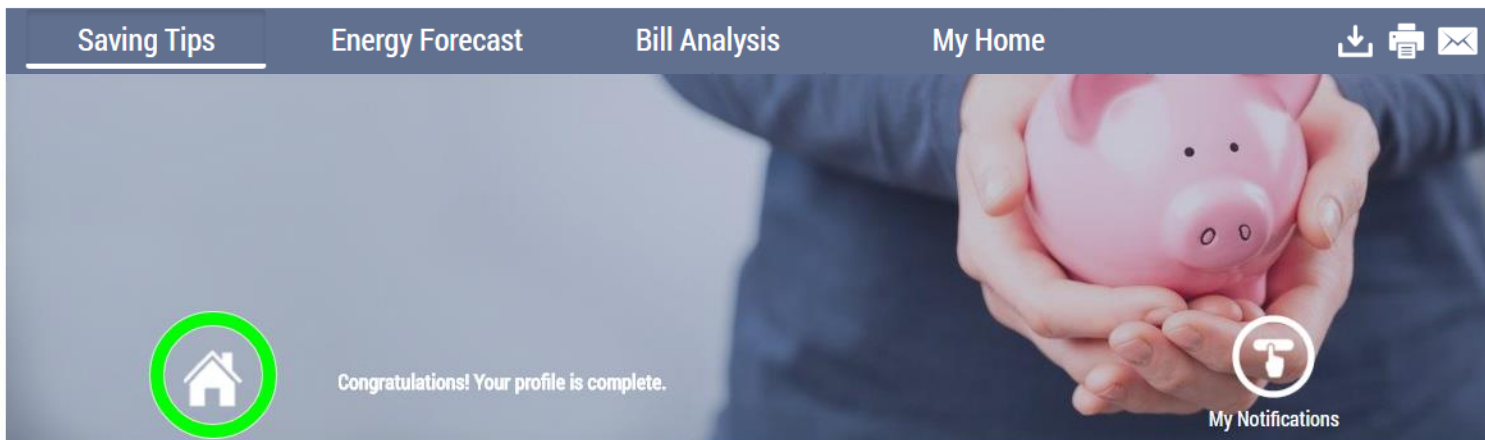


Where are you in the process of actually using business analytics, artificial intelligence, and big data to enhance your business?

- Still evaluating the opportunity
- Building out the data warehouse and analytics approach
- Have our data analyzed and designing messages
- Conducting our first customer messaging trials
- Fully operational and getting results

Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

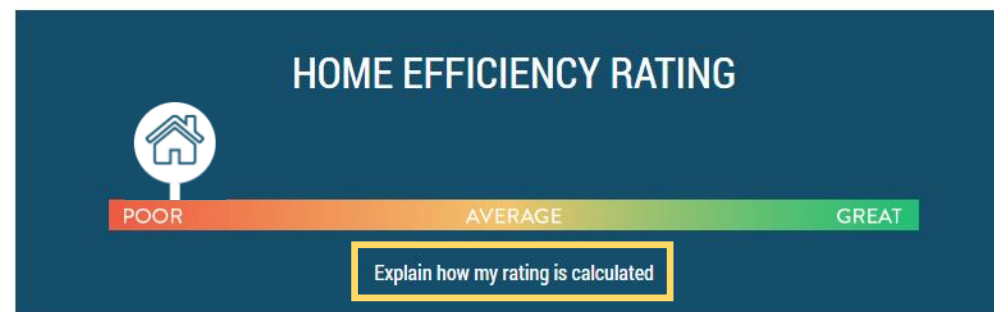




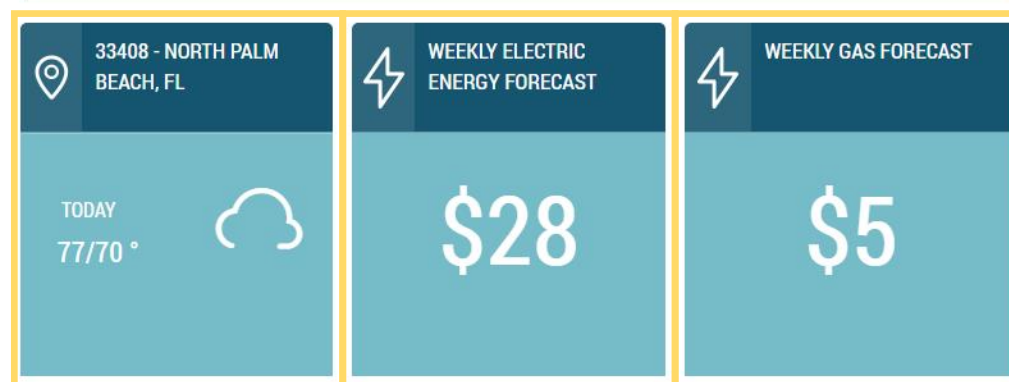
Record ID: 3734485

FEEDBACK

Home Efficiency Rating



Energy Forecast



Offer forecasts!

WAYS TO SAVE



Proactive Alerts

80% Want Alerts

67% Check for alerts even when phone isn't vibrating

44% Sleep with their phones so to not miss alerts and calls

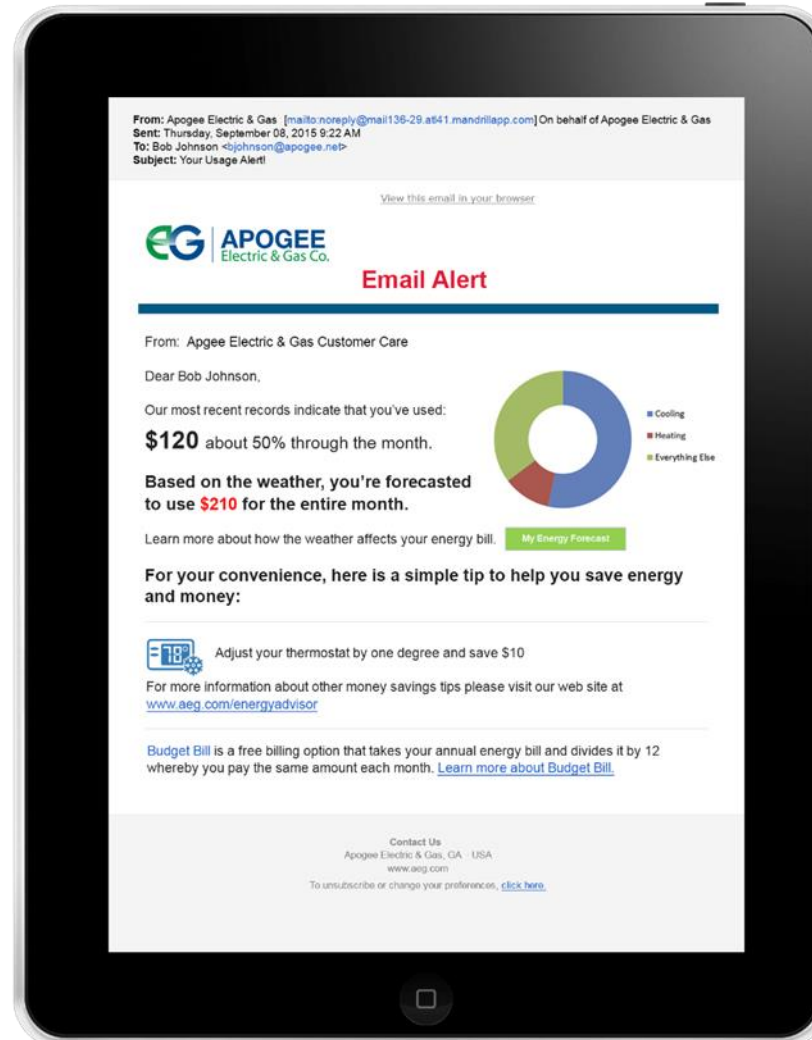
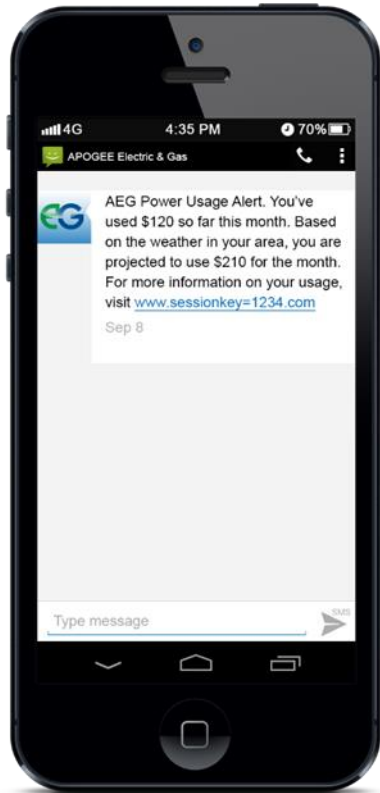
Source: Pew Research Center 2015

ENERGY ALERTS

- Alerts based local weather, rates, and billing data
- Send mid-cycle email or text
- Customers set alert parameters
- Customers learn how:

Seasonal rate changes, weather, days in cycle affect bills

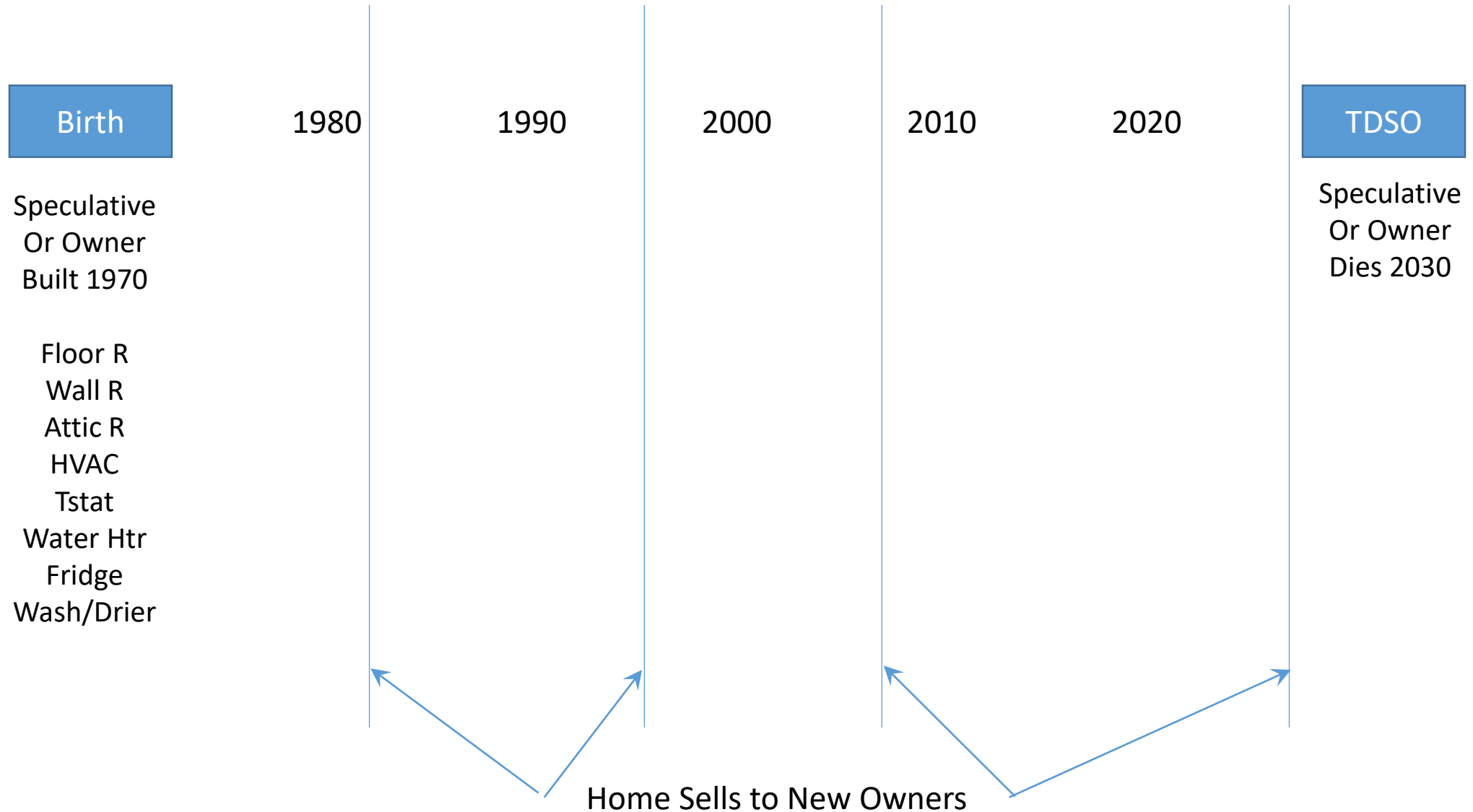
To avoid high bills ***before*** they happen



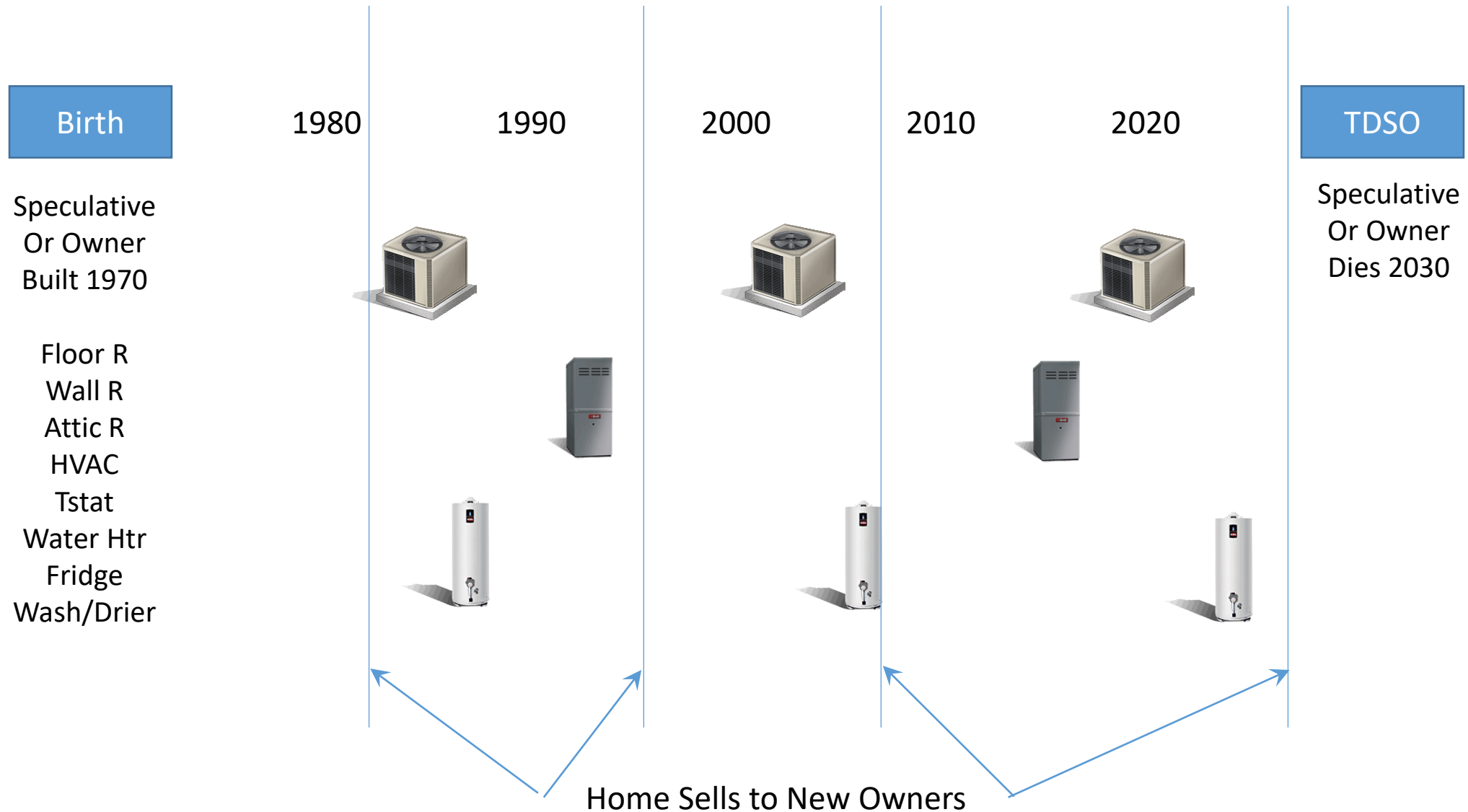
Customers can't see prior owner's bills ...

- But, they can be given home performance attributes
 - kWh per CDD and HDD – in a form they can use
 - Estimate of the operating efficiency of the home
 - Trends in energy use over the past few years
 - Comparison of that home to similar homes
- But we must Automate a Digital Dialogue
 - Conversation that resolves a question or solve a problem
 - Alexa ... what can I do to save money

The House's Journey & Experience (Birth through Death)



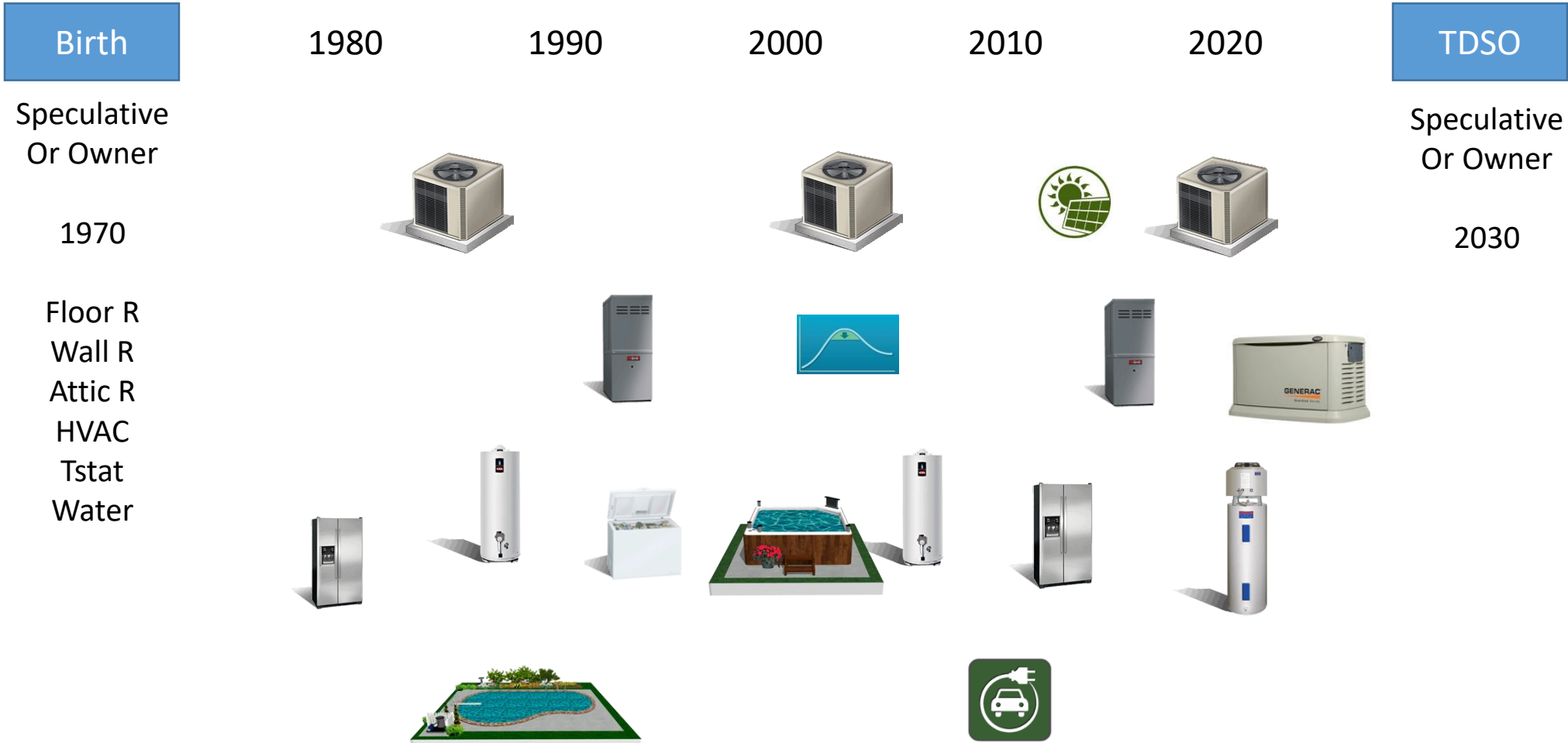
The House's Journey & Experience (Birth through Death)



Episodes catch Occupants by Surprise!

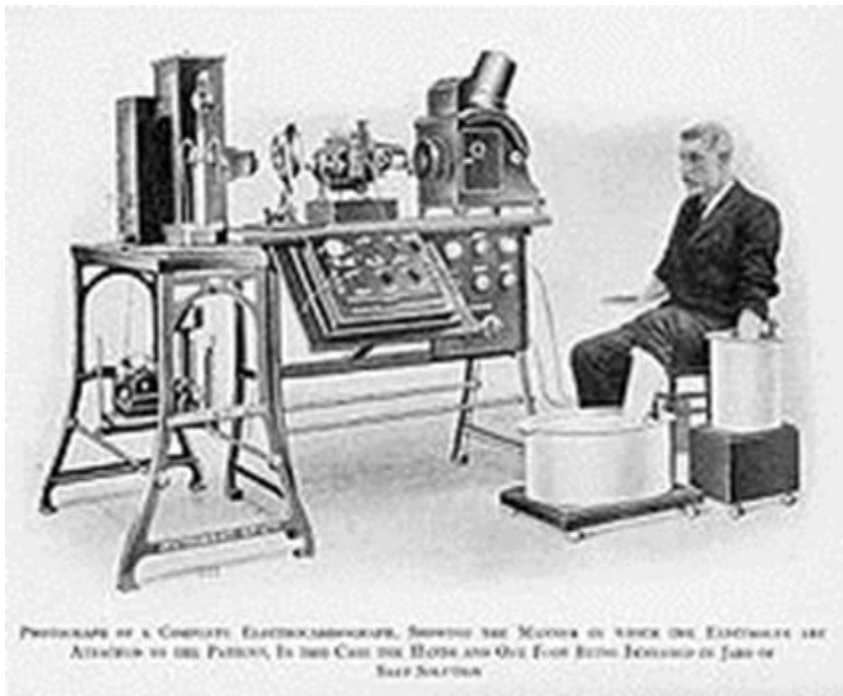
- Average American stays in any one home 13 years
- Assuming any one home persists for 50-100 years
- A home will see 3-8 owners in its lifetime
- The fact that the Air Conditioner is near End of Life
 - The are about to find out
 - You missed the critical opportunity to educate and engage
 - When the AC fails, the contractor will use warehouse engineering
- Whomever gets the customer's trust wins

The House's Journey & Experience (Birth through Death)



Automated Digital Dialogue

- Now the House Does the Talking using bills and bill histories
 - Trends in HVAC use, temperature settings, and plug load
 - Home transfer transaction Moment of Truth truly change things
- EKG-like diagnostics using Precision Temperature Monitoring
- Trend and alert HVAC, water heating, and envelope issues
- Engage daily with weather, trends, alerts, and alarms
- Broadcast seasonal changes with quarterly end reports
- Broadcast mid-cycle alerts with virtual prepay options
- Position your company as the trusted energy advisor
- Become the rightful arbiter of home performance



Heart Performance



Home Performance



Engagement Display Layer



Trade Ally
Display Layer



Customer
Display Layer



CSR
Layer



Program
Mgmt Layer



Market Research
Display Layer

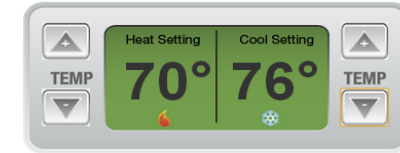
Inference & Scoring Layer



HVAC Inference &
Performance Bus



Shell Inference &
Performance Bus



Behavior Inference &
Performance Bus

Bill Analysis & Trending Layer



Energy
Bill Bus



Bill Analysis &
Monitor Bus



Temperature
Monitor Bus

Energy Use & Estimation Layer



Dial Type



Smart Grid



Nat Gas



Propane



Fuel Oil

Result: New Engagement Paradigms

- Watch your own obsessions on this agenda
- Plan for new models of value delivery
- Think Uberization of business relationships
 - Ride once with Uber ... you'll never take a cab again!
 - AirBNB makes no sense ... until you see how it works!
 - Traffic navigation with Waze ... check it out
- You were worried about Comcast, AT&T, or NEST?
- Do you remember Abraham Lincoln's quote here?

Show Senior Management Results!

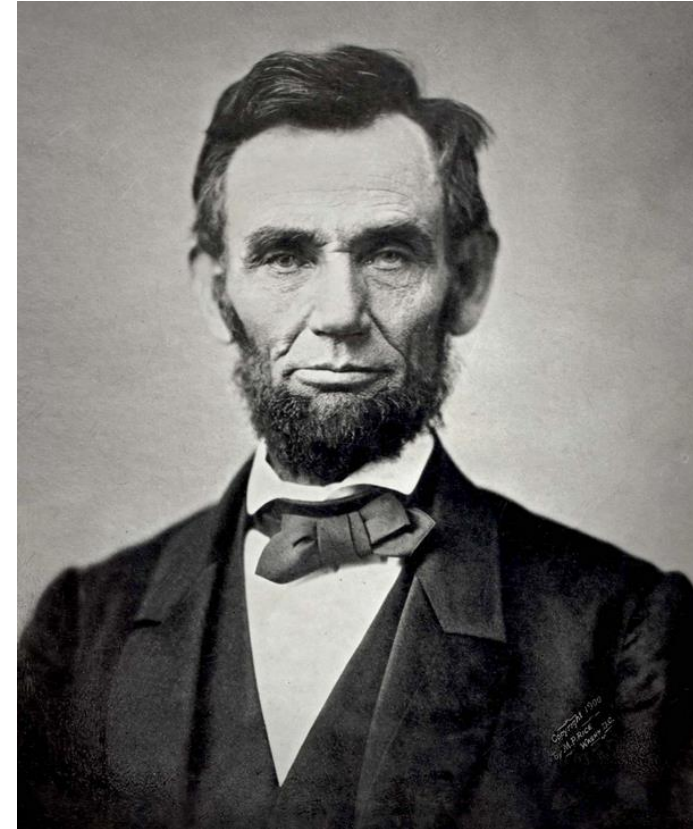
- Improve EE and DR results
- Reduce Operating Costs
- Seek “Utility 2.0” Relationships
- Increase Customer Satisfaction
- Increase Revenues and Margins
- We have no specific goals yet

Things may come to those who wait ...

“But only the things left by those who hustle!”

Ample reasons today to act and improve the business:

- Print, call center costs, M&V, Free Ridership, Targeting
- Do nothing new and you become irrelevant!
- Lose relevance and ...



**Life is like a dogsled team.
If you ain't the lead dog, the scenery never changes.**

Lewis Grizzard



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Ready to change paradigms?

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