

LOOKING FORWARD: USING DATA TO MINIMIZE COSTS

Consultant presentation to EEAC

April 15, 2016 **DRAFT**

▶ **April 20, 2016**

OUR OVER-ARCHING CHALLENGES



- ▶ **Continue to lead in a changing market**
- ▶ **Prepare for a future where energy saving opportunities from lighting are diminished**
- ▶ **Continue to maintain volume and generate new savings cost-effectively (victims of our own success?)**
- ▶ **Respond to increasingly aggressive energy efficiency and environmental impact goals**

INTRODUCTION

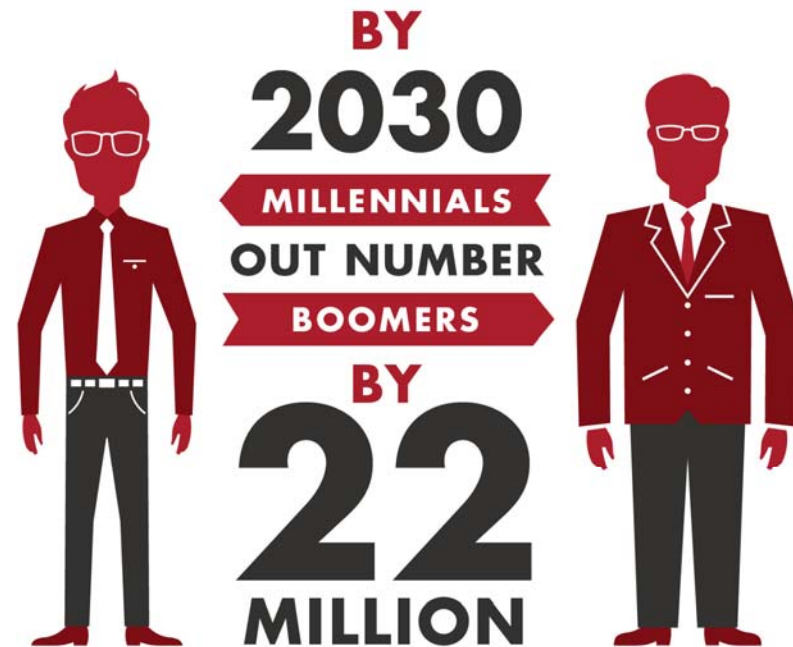


- ▶ **Data sharing trends**
- ▶ **Changes in markets**
- ▶ **Changing attitudes**
- ▶ **Tennessee Valley Authority**
 - Programs
 - Strategies
 - Systems
 - Results

CHANGING MARKETS AND ATTITUDES – PEOPLE ARE MORE COMFORTABLE WITH DATA SHARING

► People are Changing

- Millennials and younger:
 - communicate information in soundbites
 - are more reactive than proactive
 - respond to instant gratification over long term benefits



CHANGING MARKETS AND ATTITUDES



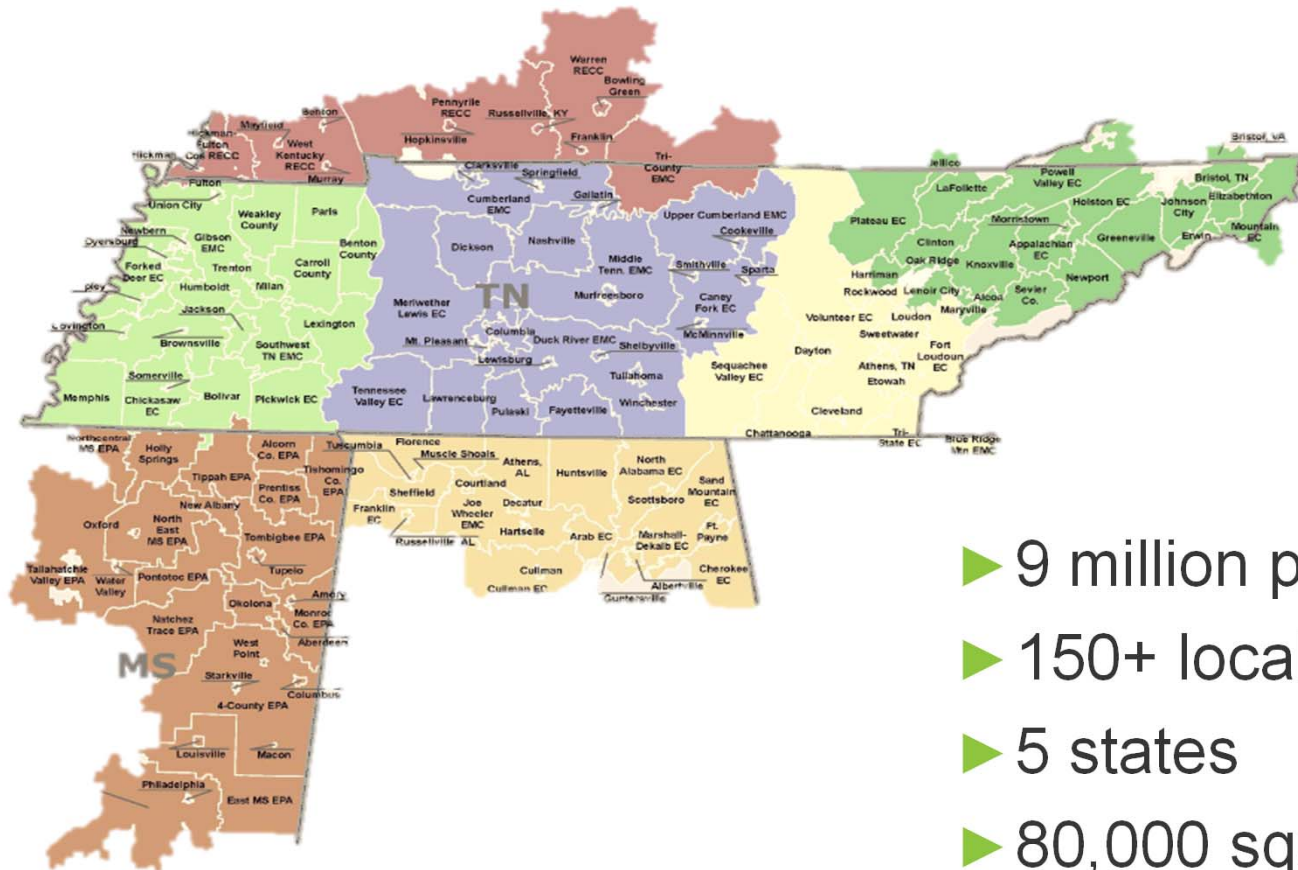
► Technology is changing

- Transformation of the lighting market is upon us -- how will we respond?
- Product manufacturers are hitting technological barriers striving for increased efficiency, focus is moving toward innovative controls, interactive user interfaces, and learning algorithms
- Easy access to cheap, secure, cloud-based data storage and improving know how to manage and analyze really big data sets

HOW WILL WE RESPOND?



TENNESSEE VALLEY AUTHORITY: THE NATION'S LARGEST PUBLIC UTILITY



- ▶ 9 million people
- ▶ 150+ local utilities
- ▶ 5 states
- ▶ 80,000 square miles

EXAMPLE PROGRAM: TVA'S ENERGY RIGHT SOLUTIONS FOR THE HOME



▶ TVA's challenges:

- Re-design an already successful program to: reach more homes, reduce program costs, enhance experience for all stakeholders, update technology platform

▶ How they dealt with it:

- Engaged in a comprehensive 4-yr discovery and planning process, unencumbered by legacy program design(s), **focused on each supply chain actor's value proposition**

▶ Outcome:

- A market-driven, transaction-based, consumer friendly approach **built on a universal data management platform tied directly to all supply chain actors**

KEY STRATEGIES OF TVA'S NEW PROGRAM:

- ▶ **Embrace any possible “on ramp”** to get customers on the road to energy efficiency
- ▶ **Eliminate program silos:** All customers, regardless of source or channel, end up in the same central data system
- ▶ **Focus on the long term customer relationship:** “customer for life” vs. “one and done”
- ▶ **Use of a centralized data system** enabling real-time data transfer tracking, analysis, and feedback customized to each supply chain actor
- ▶ **Repetitive messaging** built around a single consistent brand and label (eScore)

FEATURES OF TVA PROGRAM AND ESCORE SYSTEM

End to End **Paperless** Solution
Dashboards & Reporting
Route Optimization
Self- Scheduling
Integrated **Financing**
Self-Audit (web & mobile)



Stakeholder **Portals**
Online **Support** System
Learning Management System
eScore on **smartphone**
Tablet Presentations

ESCORE SYSTEM USERS

YEAR 1 NUMBERS

► Users:

- 50,500 Registered Customers
- 1500 Contractors
- 340 Home Depots
- 528 Administrators
- 88 Energy Advisors



25,000

eScores



30,500

Upgrades



\$121M

Customer Spending



153

Utilities



560

Contractors



34

Home Depot
Stores

EXAMPLE DASHBOARD

CONTRACTOR PORTAL:

Monday, November 16, 2015
Welcome Barry Phillips | [My Account](#) | [Logout](#)

Home | [Reimbursement Applications](#) | [Survey Results](#) | [Referral Program](#) | [Financing](#) | [Contact Us](#) | [About Program](#) | [Administration](#) | [eSchool](#)

Contractor Profile

[Payment History](#)

QUALITY CONTRACTOR NETWORK energyright solutions TVA

Company Information	Contractor Performance (Period ending: 09/30/2015)	Documents	Program Budget																						
A Plus Heating & Cooling, Inc. 481 West Main Street Smithville TN 37166 Phone 1: 1-615-597-7475 Phone 2: 1-615-216-4328 Website:	Homes Upgraded: 3 Inspections Passed: 100% Submittals Complete: 100% Satisfaction Rating (1-5): 4.6 # of Satisfaction: 1 Surveys: 1	<table border="1"> <thead> <tr> <th>Document</th> <th>Expires On</th> </tr> </thead> <tbody> <tr> <td>W-9 Document</td> <td>02/29/2016</td> </tr> <tr> <td>NATE/HVAC Excellence</td> <td>02/28/2016</td> </tr> <tr> <td>General Liability Insurance</td> <td>02/28/2016</td> </tr> <tr> <td>Workers Compensation Insurance</td> <td>02/28/2016</td> </tr> <tr> <td>Business License</td> <td>05/15/2016</td> </tr> <tr> <td>Bank Electronic Transfer Form</td> <td></td> </tr> <tr> <td>Manual J Certification</td> <td></td> </tr> </tbody> </table>	Document	Expires On	W-9 Document	02/29/2016	NATE/HVAC Excellence	02/28/2016	General Liability Insurance	02/28/2016	Workers Compensation Insurance	02/28/2016	Business License	05/15/2016	Bank Electronic Transfer Form		Manual J Certification		<table border="1"> <thead> <tr> <th>Month</th> <th>Program Budget</th> </tr> </thead> <tbody> <tr> <td>November</td> <td>\$315,097</td> </tr> <tr> <td>December</td> <td>\$600,000</td> </tr> </tbody> </table>	Month	Program Budget	November	\$315,097	December	\$600,000
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Correction Required | In Process | Completed

Display Search Filters

Submission Date	Reimb #	Customer	Measure	Reimb Amount	eScore Rewards	Status	Reason
No Correction Required Data available.							

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Contractor Upgrade Report				
Year	Month	# Of Upgrades	# Of Homes	# Of Customers
2015	June	2	1	1
2015	August	3	2	2

ENERGY RIGHT SOLUTIONS FOR THE HOME IS...

1

CUSTOMER CENTRIC

Designed to enhance and support customer experience over the time it takes to get a 10

2

CONTRACTOR DRIVEN

Quality assured implementation channel markets the program to allow for more measures per home

3

TECHNOLOGY ENHANCED

Delivered using tablet/Smart Phone technology that integrates data and available via app store

4

COST EFFECTIVE

Streamlined processes reduce cost and support growing homeowner demand

- ▶ **Rate-payer funded rebates** for qualifying ee products and measures
- ▶ System with **real-time tracking and monitoring of energy savings** opportunities and achievements **for the entire supply chain**
- ▶ **Marketing platform** to drive increased consumer investment in energy efficiency over time
- ▶ **Lead generation platform** for contractors and retailers

KEY ELEMENTS OF TVA'S NEW PROGRAM: ENABLED BY UNIVERSAL DATA SYSTEM

- ▶ **“All of the above”** customer capture strategy
- ▶ Encouraging **long term and repeat customer engagement** to improve homes on their own schedules and budgets
- ▶ Near **real-time data capture** from the field
- ▶ Combining all data sources into **customer profiles** enabling:
 1. **Tracking** of home improvements **and monitoring** savings over time
 2. **Customer segmentation** for targeted marketing and promotions of “what they need when they need it”
- ▶ Use of a **scoring system** to encourage initial and continued customer investment in energy efficiency

PRELIMINARY RESULTS OF TVA'S NEW PROGRAM DESIGN (2015, YEAR 1)

- ▶ 45% increase in field capacity
- ▶ 25% increase in # of installations
- ▶ 83% decrease in time spent on call center intake
- ▶ 80% decrease in incomplete applications received
- ▶ 25% decrease in time spent on assessments, in home
- ▶ 76% decrease in admin processing time
- ▶ 3 cents/kwh cost of energy saved
- ▶ 92% Voice of Customer



SUMMARY AND RECOMMENDATIONS



▶ TVA's Program redesign Strategies:

- Customer oriented
- Focus on value proposition
- Leverage technology and data to reduce costs
- Enhanced experience for entire supply chain
- Customer for life

▶ Recommendations for MA:

- Consider dedicated future planning process now
- Leverage existing tools (e.g. Energy Savvy) to begin testing potential approaches
- Consider evaluating potential cost savings of data driven implementation