



# Low Income Extreme Energy Makeover

## Extreme Energy Makeover (EEM)

- Project developed to target low income homes/communities
- \$43 million over 3 years (part of TVA/EPA settlement to invest in energy efficiency programs benefitting customers of the Tennessee Valley)
- Projects encouraged community partnerships to meet energy needs of low income communities
- All upgrades were paid by TVA through contract awards to seven project teams
- All recipients of upgrades were income qualified
- Overwhelming positive response from community, local power companies (LPC), and participants
- Identified a need for low income energy outreach/programs within the Valley
- **EEM Project is ending in September 2017**

## TVA Smart Communities

# Extreme Energy Makeover (EEM) Teams

Project Team	LPC	Project Partners
Knoxville Extreme Energy Makeover	Knoxville Utilities Board	Knoxville-Knox County Community Action Committee City of Knoxville Alliance to Save Energy Other Non-Profit Partners
Huntsville Extreme Energy Makeover	Huntsville Utilities	City of Huntsville Huntsville Housing Authority Other Non-Profit Partners
Impact Cleveland Extreme Energy Makeover	Cleveland Utilities	Impact Cleveland/United Way City of Cleveland Cleveland Housing Authority Other Non-Profit Partners
Columbus Extreme Energy Makeover	Columbus Light and Water	City of Columbus CLEARResult
North Georgia Extreme Energy Makeover	North Ga EMC	CLEARResult Other Non-Profit Partners
Make Oak Ridge Energy Efficient (MORE2)	Oak Ridge Electric Department	City of Oak Ridge Gilmartin Engineering Works Aid to Distressed Families of Appalachian Counties (ADFAC)
4-County Extreme Energy Makeover	4-County EPA	ICF International Other Non-Profit Partners

# SMART COMMUNITIES



## Extreme Energy Makeovers (EEM) – All Projects – As of September 30, 2017\*

EEM is partnership between TVA and participating local power companies to provide whole-home, no-cost retrofits targeting 25% electric energy savings for a total of 3,389 homes in the service territories of 4-County EPA, Cleveland Utilities, Columbus Light & Water, Huntsville Utilities, Knoxville Utilities Board, North Georgia EMC and Oak Ridge Electric Department. Part of the portfolio of projects undertaken as part of the EPA settlement. EEM projects were designed to encourage community collaboration to address low-income energy burden.

### \$ SPEND\*

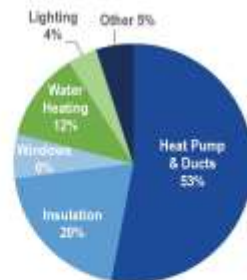
FY 2017	Total FY 2015-17
Actual	Actual
21,950,000	43,124,000
Target	Target
<b>\$21,907,108</b>	<b>\$42,570,000</b>
Progress Toward Goal	Progress Toward Goal
<b>100%</b>	<b>101%</b>

### 📊 ECONOMIC IMPACT\*

**\$34.5M**

Direct impact to local communities

### + MEASURES IMPACT\*



### 🏠 HOME RETROFITS\*



TOTAL PROJECT

Actual  
**3,400**

Target  
**3,389**

### 🔋 DEEMED SAVINGS (kWh)\*

**16,663,400**

Total

**4,898**

Average/home

### 📅 UPDATES\*: JUNE 2017

- Completed EEM projects within 2 years
- Exceeded target number of homes
- Average energy savings of 35% per home higher than targeted 25%
- Reduced participant electric bills by approximately \$500/year
- Over \$34M paid directly to local businesses/contractors

\*Projected as of September 30, 2017

Date Issued: August 1, 2017



# Energy Efficiency Information Exchange (EEIX)

**TVA formed a group of stakeholders to come together and find a solution to energy equity in the Tennessee Valley**



Focus on low-income energy efficiency issues



Goal: to launch a sustainable and equitable low-income energy efficiency and educational model Valley-wide by 2018



Collaborative group of stakeholders include utility representatives, government officials, researchers, community leaders, and non-profit advocates, Habitat administrators, etc



One of the Working Groups was tasked with program design and development

# EEIX Inspires WAP Solution

WAPez Technology Platform is based on eScore technology

Partnering with THDA and WAP administrators, integrate TVA's eScore technology platform & training systems with WAP in order to streamline multiple aspects of WAP implementation to build capacity and serve more customers

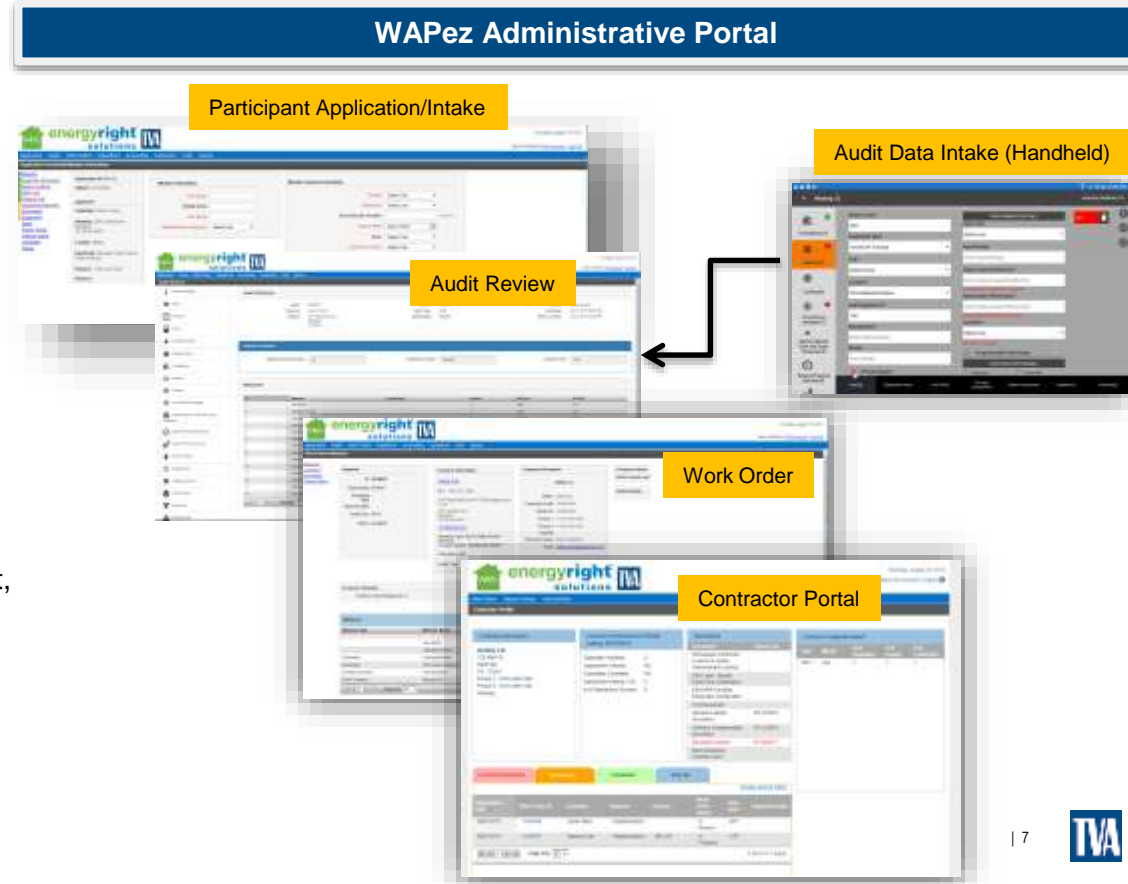


# WAPez Technology Platform is based on eScore technology



## WAPez Technical Platform

- Built on eScore Tech Model
- Comprehensive participant intake
- Streamlined data collection from field
- Real-time updates into central portal
- NEAT/MHEA efficiency calculations made in cloud as soon as audit is complete
- Eliminates duplicate databases (intake, audit, NEAT/MHEA, etc)



# MLGW WAPez Demonstration Pilot



## Background

- Memphis has one of the highest energy burdens in the country
- MLGW CEO and the NAACP requested TVA assistance
- Pilot was off ground within 2 months
- CLEAResult (TVA's 3<sup>rd</sup> party admin) is providing field support for project

## HIGHLIGHTS

- Contractor workforce is being trained to support WAP program
- CLEAResult assisting City of Memphis WAP program (ramp up)
- Energy education workshops expanding in Memphis
- **Building relationships with community and MLGW to grow low income programs**

Project	LPC	Homes Completed	Target Homes	% Complete	Total Budget	Notes
Home Energy Improvement Program (HEIP)	MLGW	30	125	24%	\$1.3M	

As of July 31, 2017



# EPB Chattanooga WAPez Demonstration Pilot



55 Homes

## Background

- EPB conducted a low income project mimicking Extreme Energy Makeover (EEM)
- EPB wants to support local WAP agency in Hamilton county
- TVA provided \$540K for pilot to test WAPez in FY17
- EPB performs audits and manages contractors using WAPez tool

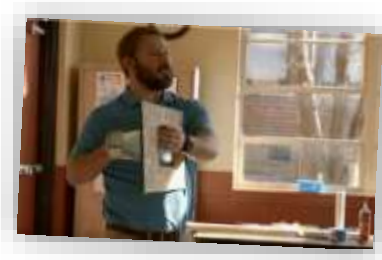
## HIGHLIGHTS

- Quickly ramped up and expected to exceed targeted homes
- EPB has established relationship with local WAP agency
- Helped eliminate waiting list for Hamilton county clients
- HEU Pilot motivated WAP agency to open enrollment to recruit more clients for WAP

Project	LPC	Homes Completed	Target Homes	% Complete	Budget	Notes
Home Energy Upgrades (HEU)	EPB	33	55	60%	\$0.5M	

As of July 31, 2017

# Other Low Income Initiatives



## Knoxville CAC

- Knox CAC is national leader in WAP management (also a EEM team)
- TVA is funding a training facility at Knoxville CAC to provide WAP certification within the Valley (FY17)

## Energy Education Workshops

- Energy efficiency workshops were very popular in EEM
- Growing need for workshops to help engage low income clients
- Low cost way to reach low income
- Takes advantage of TVA and local utilities expertise as trusted energy advisors
- Positive influence within the community
- ERS plans to expand energy efficiency workshop offerings in the future

# On-Bill Fundraising Programs



- Many local power companies (LPCs) collect funds from customer to help other disadvantaged customers
- Funds are primarily used for bill payment assistance
- Customer participation must be voluntary
- Funds collected must benefit the customers of the utility
- Other Southeast utilities have on-bill fundraising programs
  - Georgia Power Project Share, FPL's Care to Share, Piedmont's Share the Warmth



# LPCs with Customer On-Bill Donation Participation

District	LPCs with On-Bill Donation Programs	%	Approx. Funds / Year
Alabama	7	22%	NA
Kentucky	7	50%	\$8,000
Middle TN	11	41%	\$200,000
Mississippi	3	11%	\$20,000
Northeast	18	78%	\$1,320,000
Southeast	10	63%	\$800,000
West TN	11	52%	\$66,000
Total	67	44%	\$2,414,000

Based on informal survey of TVA local power companies (Aug 2017)

# On-Bill Donation – Types of Programs

## Fixed Amount (Recurring or One Time Donation)

- Most popular format
- Customers sign up for \$1 or more recurring donation

## Round Up

- Utility bill is rounded up to next whole dollar

### Types of Round Up Enrollment

- Opt Out – customers are automatically enrolled but can stop participating at any time
- Opt In – customers have to initiate enrollment

**Funds are pooled together and allocated to 3<sup>rd</sup> party for disbursement**

			Round Up Programs		
District	LPCs with On-Bill Donation	Fixed Amount Recurring	Round Up Programs	OPT OUT	OPT IN
Alabama	7	7	2		2
Kentucky	7	4	3		3
Middle TN	11	10	1		1
Mississippi	3	3	0		0
Northeast	18	15	7	3	4
Southeast	10	6	5	3	2
West TN	11	5	7	3	4
<b>Total</b>	<b>67</b>	<b>50</b>	<b>25</b>	<b>9</b>	<b>16</b>

**8 LPCs offer multiple on-bill donation methods**

# How On-Bill Donation Funds Are Used

- Most funds are used to help emergency utility bill payment
- Typically funds are managed by a local community nonprofit
- Only 2 LPCs identified as directing funds to low income weatherization
- Use of funds is tied to the community drivers
- Strong opinions on collection methods (opt in/out)

District	Bill Payment Assistance	Low Income Weatherization	Education	Hunger Relief/Other
Alabama	7	0	2	0
Kentucky	6	0	0	1
Middle TN	10	0	0	1
Mississippi	1	0	0	2
Northeast	17	1	1	4
Southeast	6	0	0	7
West TN	8	1	1	2
<b>Total</b>	<b>55</b>	<b>2</b>	<b>4</b>	<b>17</b>

**12 LPCs offer multiple programs**