

Duct Hunting: Developing a Comprehensive Statewide Strategy Targeting Hard-to-Reach Customers



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Presentation Overview

- Arkansas' Unique Market Challenges
- Public Service Commission's Order to Develop a Consistent Approach
- Program Design Process
- Results
- Recommendations and Next Steps

Arkansas Has a Large Hard-to-Reach Population



- Out of approximately 1.2 million households:
 - An estimated 16% of the total population is considered living in poverty; and
 - 7% of the homes received some type of LIHEAP assistance.
- However, the definition for Hard-to-Reach in Arkansas is ***not determined by income eligibility.***
- Hard-to-Reach in Arkansas is defined as living in a ***“severely energy inefficient home”***
 - This definition varies by fuel choice but should be in the range of 0.05 cents per square foot for gas utilities and 10 cents per square foot for electric customers.

Collaboration in Arkansas

- Arkansas has made tremendous gains in a few years
- Now viewed as a major leader in energy efficiency in the Southeast
- These significant accomplishments are due to the hard work of the Parties Working Collaboratively (PWC) established by the Arkansas Public Service Commission in 2006.
- The PWC participants include seven investor-owned gas and electric utilities, the Evaluation, Measurement & Verification (EM&V) contractors, program implementers, and intervenor groups.



Arkansas Public Service Commission Ordered a Consistent Statewide Approach

- **Joint funding** between electric and gas utilities for whole house energy assessment and energy efficiency services including auditing, insulation, and infiltration reduction features. 
- **Comprehensive technical standards** following best practices with a single set of standards and coordinated with federally-funded weatherization services requirements. 
- **Offer financing mechanisms** that encourage installation of multiple cost-effective measures and explore viability of current options in use, such as the Home Energy Affordability Loan (HEAL) program.

Commission Requirements



- ***Eliminate duplication*** of programs that prevent trade allies to work together or create customer confusion.
- ***Active participation*** in the reorganization of Weatherization Assistance Program (WAP) to optimize its coordination with utility funded weatherization services and leverage available personnel and federal funding.
- ***Effectively market*** coordinated Electric and Gas utility weatherization services including the HEAL program.

Methodology





- The PWC quickly engaged in a multi-step process designed to identify current **strengths and weakness** of the program models used in by the IOUs, and identify weatherization **best practices** that could be incorporated into this new approach to weatherization programs that would meet the Commission’s overall objectives. Activities included:

- **Examine and compare** current weatherization programs offered across the state;
- **Review** most recent EM&V program evaluations to identify strengths and weaknesses of these current program strategies;
- **Conduct** a gap analysis to identify gaps in current program delivery platforms; and
- **Identify** weatherization “best practices” through a literature review.



Review EM&V Results

Key Findings

- The current Arkansas Weatherization Program (AWP) design is ***not effective***.  
- In contrast, a joint Weatherization Program offered by a natural gas utility, AOG, and an electric utility, OG&E, ***exceeded*** program energy & participation goals in PY2014.
- Several other Arkansas utilities are ***developing successful*** weatherization program offerings that could expand to be important components of a unified statewide approach.
- EM&V evaluations pointed out numerous opportunities for ***joint-utility program collaboration*** in Arkansas.

Review Current Program Designs

- The programs were specifically highlighted in Commission Order No. 7;
- The programs included an ***energy audit*** as part of the program offering; or
- The programs included ***cost-effective measures*** specifically designed to improve building envelopes, such as air sealing, duct sealing, or insulation.



Conduct Gap Analysis

GAP Analysis	AWP	AOG	Center Point	Empire	EAI	OG&E	Source Gas	SWEPCO
Joint Collaboration	All Utilities	AOG WX	HEAL	Res. WX	HES	OG&E WX	HES	HPWES
Dual Fuel Program Offerings	✓	✓	✓		✓	✓	✓	
Direct Install	✓		✓	✓	✓		✓	✓
Comprehensive “Whole House” Approach Utility	✓	✓	✓	✓	✓	✓	✓	✓
Leverages National Brands	N/A							
Leverages Federal Funding Sources	✓							
Leverages other Non-Federal Funding Programs	✓		✓		✓			

Green - gap in current program offering

✓ = Addressed in current program

NA = not applicable for this program

Review of Industry Best Practices

Joint-Utility Collaboration "Best Practices:	Partners in Energy Savings (PIES)	Mass Save Home Energy Services (HES) Program	Center Point & Xcel Energy Home Energy Squad	Home Energy Solutions (CT)
Economies of scale through joint implementation	✓		✓	
Integrated marketing, efficiency measures	✓		✓	✓
Integrated and consistent training on program protocols, guidelines, installation best practices	✓	✓	✓	✓
Standardized rebate levels	✓	✓		✓
Fuel-Blind Approach		✓	✓	
Regular Communications with Key Stakeholders	✓	✓		
Flexible platform to accommodate market changes			✓	✓

Sources, Navigant 2011, Johnson Consulting Group 2014; Nowak, Kushler et al 2013, pp. 112-117 cited in Best Practices Report, p. 5.

Key Elements

The key program elements of this approach are as follows:

- A ***comprehensive assessment*** of the customer's home;
- ***Direct installation*** of immediate (low-cost) energy saving measures;
- ***Installation*** of a set of weatherization measures, including insulation and air sealing, based on the funding levels provided by the utilities; and
- ***Management*** of the contractors that deliver the home assessments and installations, requiring standardized protocols, energy assessment tools and quality control.



Core Measures

- Ceiling (Attic) Insulation
- Wall Insulation
- Air Infiltration
- Faucet Aerators (Direct Install)
- Low-Flow Showerheads (Direct Install)
- Advanced Power Strips (Electric Only-Direct Install)
- ENERGY STAR® (CFLs) (Electric Only-Direct Install)
- ENERGY STAR® LED (Electric Only- Direct Install)
- Duct Sealing

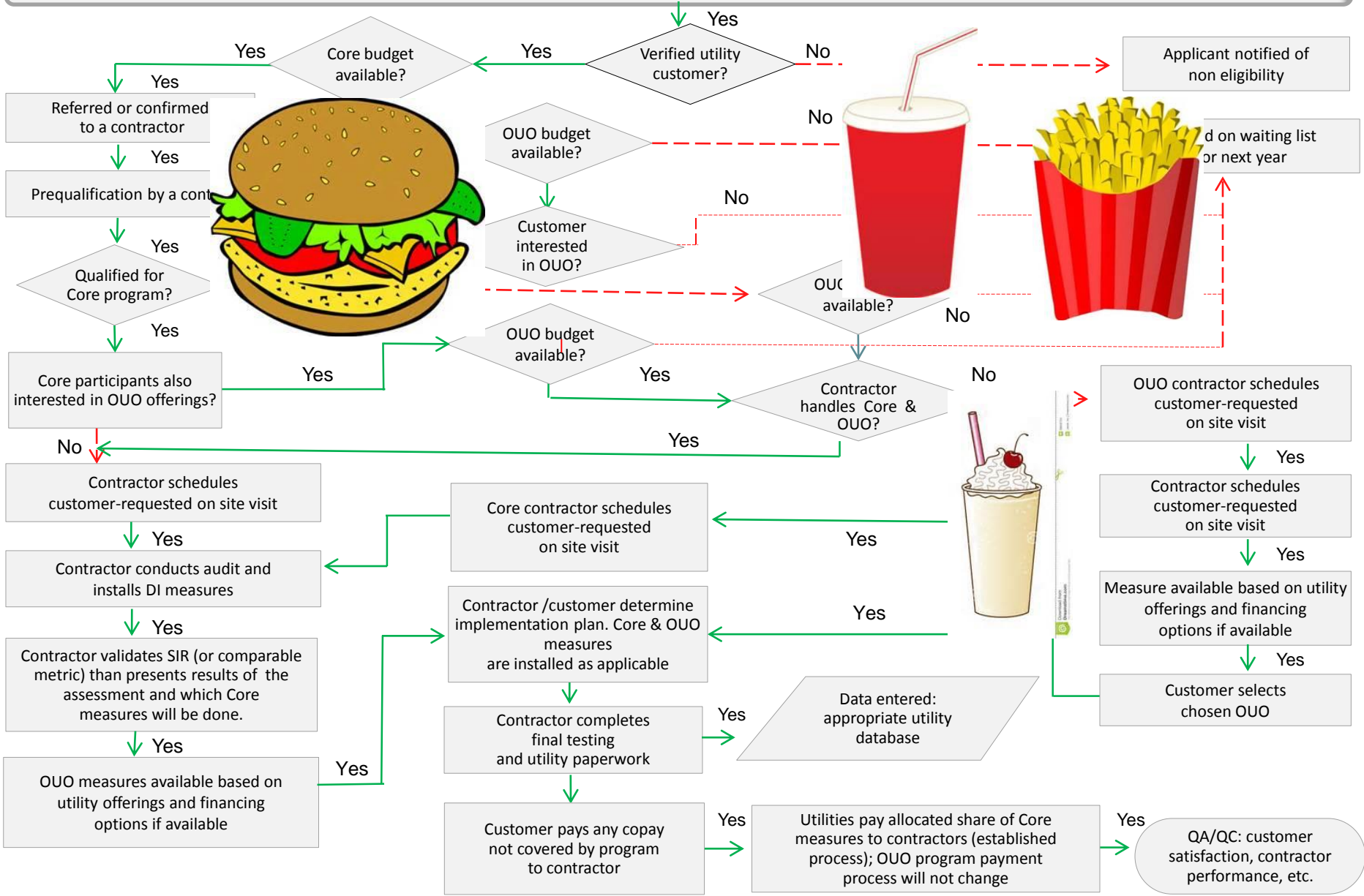


Other Utility Offerings (OUO)

- Central Air Conditioner Tune-Ups
- Window Film
- HVAC Equipment
- Window Repair
- Door Repair/Replacement
- Roofs-Minor Repair



Customer enters program (web, phone, utility referral to a contractor, direct contact by contractor, response to direct mail notice)



Marketing/Outreach Activities

OG+E aog
Weatherization Program
FREE Energy Upgrades!

Contact the Community Services Clearinghouse today to sign up.
479-782-5074

It's open season on high energy bills.

Save **\$300** on a home energy audit that will help you target energy waste and earn rebates up to **\$2,500** when you make select upgrades.

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Commission Ruling



On December 9, 2014, the Commission ***unanimously approved*** the PWC's recommended approach and directed that the IOUs to begin implementation of the Core Program in January 2016. Furthermore, the Commission provided the following summation of the PWC's efforts:

- *The Commission congratulates the PWC for its continued excellence in achieving the benefits offered by collaboration and commends the active participants in the PWC Weatherization Working Group and the Independent Evaluation Monitor for their work and service in the public interest of Arkansas (Commission Order No. 22, p. 11 of 13).*

Conclusions



These activities led to the development of a statewide program with the following unifying elements:

- ***Consistent approach*** across all utilities to comprehensive audit for eligible customers;
- ***Consistent contractor requirements*** across all utilities such as the Building Performance Institute (BPI) or the Residential Energy Services Network (RESNET) and;
- ***Ongoing coordination*** by utilities and key stakeholders to monitor implementation, trouble-shoot problems and develop consistent solutions, review and recommend additional or substitute measures as technologies develop to ensure a consistent weatherization approach across the seven IOUs.

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For More Information



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