

**Arkansas Public Service Commission
Tariff ("TF") Docket Summary Cover Sheet
Must be filed with each new TF docket filed at the Commission**

STYLE OF DOCKET: (Style may be changed by Secretary of Commission) **Docket Number:**

<u>IN THE MATTER OF THE APPLICATION OF ENTERGY ARKANSAS, INC. FOR APPROVAL OF ENERGY EFFICIENCY PROGRAMS AND COST RATE RIDER</u>	<u>07-085-TF</u>
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DOCKET DESIGNATOR: TF LAST RATE CASE DOCKET: 13-028-U

Does this change company name:
 Yes No

<u>PETITIONER</u> Entergy Arkansas, Inc.	<u>ATTORNEY(S)' NAME, ADDRESS, PHONE, FAX AND E-MAIL</u> Mr. Matthew R. Suffern, Entergy Services, Inc., 425 W. Capitol Ave., P. O. Box 551, Little Rock, AR 72203, 501-377-5855, fax 501-377-5426, msuffer@entergy.com
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Write a brief statement, limited to the space provided herein describing the case that you are filing. Please provide enough information to assure that the nature of your docket is clear.

EAI requests approval of its Application, including approval of the Company's proposed portfolio of energy efficiency ("EE") programs for the 2016 program year (the "2016 Plan"), the proposed budget, approval of the revisions to Rate Schedule No. 40, Energy Efficiency Cost Rate Rider ("Rider EECR") Attachments A, B and C including the 2016 redetermination to the Rider EECR Rates and Rate Calculation, and the tariff changes to Rider EECR including the request for a waiver to submit those tariff changes in this proceeding and outside of EAI's pending rate application in Docket No. 15-015-U. EAI is also filing the supporting testimonies of Gabe Munoz, Gerardo R. Galdamez, Denice Jeter, and Scott Celino.

Pursuant to Rule 2.03(b), of the Commission's Rules of Practice and Procedure, please provide name, address, phone, fax, e-mail of at least one person, but not more than two, to appear on the Service List for this docket

Mr. Matthew R. Suffern, Entergy Services, Inc., 425 W. Capitol Ave., P. O. Box 551, Little Rock, AR 72203, 501-377-5855, fax 501-377-5426, msuffer@entergy.com; Laura R. Landreaux, Entergy Arkansas, Inc., 425 W. Capitol Ave., P. O. Box 551, Little Rock, AR 72203, 501-377-5876, fax 501-377-4415, lruffae@entergy.com

1. Number of customers by class affected by this tariff change: Residential 586,023
Commercial 90,730 Industrial 23,622 Public Agencies, institutions or others 691

2. Company's current authorized retail revenue requirement: \$1,074,204,964

3. Estimated annual retail revenue impact if proposal is approved, both in dollars and as a percentage of current retail revenue requirement: \$-5.7M or -0.53%

4. Estimated monthly impact on an average residential customer in both dollars and percentage increase: \$0.41 decrease for 1,000 kWh avg residential usage or 0.41% decrease

5. Proposed effective date: January 1, 2016 or, if necessary, the first billing cycle of the month following APSC approval of EAI's Rider EECR Attachments A, B, and C.

Form completed by: Matthew R. Suffern Date: 6-1-15

Representing: Entergy Arkansas, Inc.

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION)
OF ENTERGY ARKANSAS, INC. FOR)
APPROVAL OF ENERGY EFFICIENCY) DOCKET NO. 07-085-TF
PROGRAMS AND ENERGY EFFICIENCY)
COST RATE RIDER)

APPLICATION

COMES NOW Entergy Arkansas, Inc. (“EAI” or the “Company”) and, in support of its Application seeking approval of its Energy Efficiency (“EE”) programs for the 2016 program year (“Application”), states as follows:

DESCRIPTION OF THE COMPANY

1. The Company is a corporation organized and existing under the laws of the State of Arkansas, and is a public utility, as defined by Ark. Code Ann. § 23-1-101 *et seq.*, subject to the jurisdiction of the Arkansas Public Service Commission (“APSC” or the “Commission”). The Company’s principal place of business is located at the Simmons Tower Building, 425 West Capitol Avenue, Little Rock, Arkansas 72201. A copy of the Company’s Agreement of Consolidation of Merger (Articles of Incorporation) is on file with the Arkansas Public Service Commission (“APSC” or the “Commission”) and is hereby incorporated by reference.

2. In this Application, EAI seeks Commission approval of the Company's proposed portfolio of EE programs for the 2016 program year. The programs for which EAI seeks approval are described in detail in EAI's Program Year 2016 Program Plan (the "2016 Plan"), which is attached to this Application as EAI Application Exhibit 1. In addition, EAI seeks approval of its proposed Rate Schedule No. 40, Energy Efficiency Cost Rate Rider ("Rider EECR"), including a revised Rider EECR rate associated with the 2016 program year and certain revisions to the tariff itself.

BACKGROUND

3. Since late 2007, EAI has been offering its EE programs to its customers pursuant to the Commission's Rules for Conservation and Energy Efficiency Programs ("C&EE Rules"). The 2016 Plan that is the subject of this Application reflects the portfolio of programs that EAI proposes to offer its customers for the 2016 program year.

4. The 2016 Plan, and the associated budget for the 2016 program year contained therein, incorporates direction provided by the Commission in a number of orders. As discussed by EAI witness Gabe Munoz in testimony filed in support of this Application, the 2016 Plan is the product of work started in late 2013 after the Commission issued Order No. 7 in Docket No. 13-002-U, an order that addressed several EE policy issues identified by the Commission. Considering the policy issues identified by the Commission, the Commission

granted, in Order No. 7, a delay requested by a joint motion of the Parties Working Collaboratively, which delayed the three-year program cycle filing of the 2014-2016 program years for one year to June 1, 2014 and advanced the cycle for the 2015-2017 project years.

5. On February 20, 2014, the Commission issued Order No. 15 in Docket No. 13-002-U, delaying the 2015-2017 program filing for one year until June 1, 2015. Subsequently, the Commission issued Order No. 25 in Docket No. 13-002-U granting a motion to delay the filing of the 2016-2018 three-year plan to June 1, 2016 but directed the investor owned utilities to file a 2016 Program Plan and budget by June 1, 2015 incorporating the statewide weatherization measures. Accordingly, EAI has incorporated weatherization measures from a unified statewide effort into the 2016 Plan.

THE 2016 PLAN

6. In designing the portfolio of programs proposed in the 2016 Plan, EAI worked to develop a portfolio of programs that is analyzed thoroughly, based upon costs estimated as precisely as possible given the available data. With the time available to prepare the 2016 Plan as a result of the Commission's orders discussed above, EAI set a goal of completing the program development by January 2015. This schedule allowed EAI to seek bids from implementation

contractors across the country through a formal Request for Proposals (“RFP”) with respect to EAI’s proposed programs.

7. In developing the 2016 Plan, EAI started with a measure analysis utilizing the new directives from the Commission set forth in Order No. 7 Docket No. 13-002-U. EAI also collaborated with stakeholders to define and incorporate the available statewide standardization efforts being developed in the related collaborative process into EAI’s new program portfolio. In addition, EAI retained the consulting services of ICF International, Inc. (“ICF”),¹ with significant input from CLEAResult, to assist EAI with the program design and development of the 2016 Plan. ICF’s consultants are experts in the areas of program design and implementation, and CLEAResult has extensive market and implementation experience in Arkansas. Continuing through December of 2014, EAI conducted measure analysis for the 2016 Plan, which efforts culminated in a new, but reduced, set of measures.

8. The cost-effective measures that were identified in this process were incorporated into the proposed programs in the 2016 Plan through a “bottoms up” approach. The programs were analyzed including implementation

¹ ICF partners with government and commercial clients to deliver consulting services and technology solutions in the energy, environment, transportation, social programs, defense, and homeland security markets. Since 1969, ICF has been serving government at all levels, major corporations, and multilateral institutions.

and other appropriate costs necessary for EAI to provide those EE programs were included within the analysis.

9. By early January of 2015, the 2016-2018 portfolio development was complete, and consistent with EAI's strategy discussed earlier, EAI issued an RFP to identify the appropriate implementation contractors for each program. The 2016 Plan incorporates these data into the programs and anticipated budgets set forth therein.

EAI'S PORTFOLIO OF PROGRAMS

10. For the 2016 program year, the Company has developed a portfolio of cost-effective EE and demand response programs that will provide a diverse set of program offerings for each of the Company's customer classes and meet the benefits and objectives as outlined by the Commission in the C&EE Rules. As discussed by Mr. Munoz, EAI proposes to offer the following EE programs:

1. Lighting and Appliances
2. Home Energy Solutions
3. Coolsaver
4. Small Business
5. C&I Prescriptive and Custom
6. City Smart
7. Agriculture Irrigation Load Control
8. Residential Benchmarking Pilot

9. Direct Load Control
10. Manufactured Homes
11. Multifamily Homes
12. Agriculture Energy Solutions
13. Energy Efficiency Arkansas
14. Commercial Mid-Stream

11. In Order No. 17 in Docket No. 08-144-U, the Commission set forth a Checklist of Factors that it would use to determine whether a utility's proposed EE programs and EE portfolio are comprehensive under the C&EE Rules. As discussed by Mr. Munoz, the 2016 Plan provides an explanation of how the proposed program plan addresses the checklist of factors established by the Commission in Order No. 17 in Docket No. 08-144-U to determine comprehensiveness. Further, because the portfolio of programs proposed is very similar to what the Commission already approved as comprehensive and because the programs have been demonstrated to be comprehensive through independent process and impact evaluation, EAI offers that the proposed portfolio of EE programs should be considered to be comprehensive.

12. Two programs previously not included within EAI's proposed portfolio are the Arkansas Weatherization Program ("AWP") and the New Homes Program. As discussed by Mr. Munoz, EAI has incorporated AWP into the portfolio of programs included within the 2016 Plan. EAI has been unsuccessful

in attempts to provide the New Homes program in a cost-effective manner. Mr. Munoz discusses these circumstances in greater detail in his testimony and explains EAI's anticipated process for transitioning those programs out of EAI's portfolio.

13. The estimated budget for each program is summarized in the table below:

Program Name	Total
Lighting and Appliances	\$4,467
Home Energy Solutions	\$15,509
Coolsaver	\$2,889
Small Business	\$2,515
C&I Prescriptive and Custom	\$25,656
City Smart	\$2,782
Agriculture Irrigation Load Control	\$3,523
Residential Benchmarking Pilot	\$686
Direct Load Control	\$4,332
Manufactured Homes	\$635
Multifamily Homes	\$702
Agriculture Energy Solutions	\$965
Energy Efficiency Arkansas	\$327
Commercial Mid-Stream Lighting	\$977
Total:	\$65,964

RIDER EECR

14. As reflected in the proposed budgets, EAI's proposed portfolio of programs reflects significant EE expenditures for the 2016 program year. As discussed by EAI witness Scott M. Celino, EAI's proposed Rider EECR redetermines the Rider EECR rate to include recovery of the estimated program cost budget discussed, utilizing EAI's rate class recovery allocation methodology,

as well as the Lost Contribution to Fixed Costs (“LCFC”) and incentives. EAI Direct Exhibit SMC-2 to Mr. Celino’s direct testimony includes proposed Attachments A, B, and C, which reflect the Rider EECR rates and rate redetermination for the billing period January 2016 through December 2016. EAI witness Gerardo Galdamez provides additional details regarding the calculation of the LCFC amount that was included within Mr. Celino’s Rider EECR rate redeterminations.

15. As discussed by Mr. Celino, the redetermined Rider EECR rate is calculated by summing the 2016 projected EE Program costs, cumulative LCFC, and EE program incentives, plus or minus an over/under recovery true-up adjustment, and then multiplying this total by the rate class allocation factor production demand allocation factor (“PDAF”), including the adjustment for the self-direct option. These amounts by rate class are then divided by the projected energy sales for each rate class adjusted to remove the customer accounts that are currently exempt from the Rider EECR charge in order to determine the rate adjustment by rate class.

16. EAI’s Rider EECR rate allocates the costs of the Company’s 2015 EE Programs and the LCFC using the PDAF approved in the Company’s most recent rate case, adjusted to remove the customer accounts that are exempt from the Rider EECR charge for the filing year based on the certificates of exemption currently approved by the Commission pursuant to the self-direct

option. EAI proposes to use the PDAF to allocate these costs because EAI's EE Programs and the related LCFC provide significant benefits, including the reduction in demand-related production costs. As production costs are allocated based on either demand or energy, and because these costs are demand-related, it is appropriate to use the PDAF to allocate these costs. This is consistent with the allocation methodology used to allocate costs in the prior year's Rider EECR rate calculation, including the adjustment for the self-direct option.

17. As discussed by Mr. Celino, EAI has estimated that, with the implementation of EAI's redetermined Rider EECR rate, a typical monthly residential bill for a 1,000 kWh energy usage, as compared to the Rider EECR rates proposed in EAI's April 2015 annual redetermination, would decrease by \$0.41. The impact on the rate for each rate class is shown in the table below.

2016 Rider EECR Update Rate Class Impact

Rate Class	2016	2015	Change
Residential	\$0.00535/kWh	\$0.00576/kWh	(\$0.00041)/kWh
Small General Service	\$0.00541/kWh	\$0.00613/kWh	(\$0.00072)/kWh
Large General Service	\$0.00378/kWh	\$0.00450/kWh	(\$0.00072)/kWh
Lighting	\$0.00282/kWh	\$0.00306/kWh	(\$0.00024)/kWh

18. In addition to the Rider EECR rate changes discussed above, Mr. Celino also supports certain revisions to the Rider EECR tariff that are necessary to accommodate the filing dates associated with the 2016 Rate transition filing. Those revisions are set forth in EAI Direct Exhibit SMC-3 to Mr. Celino's testimony.

19. With respect to these requested Rider EECR tariff changes, EAI is seeking authorization from the Commission to submit its proposed tariff changes as part of its Application in this proceeding and not as part of EAI's pending general rate application in Docket No. 15-015-U. Pursuant to APSC Rule 2.05(a) of the Rules of Practice and Procedure ("RPP"), which provides that the Commission may grant an exemption from any of its rules if such exemption is in

the public interest and for good cause shown, EAI is seeking a waiver of RPPs 7.02(a) and 7.07. These rules provide in pertinent part, respectively, that (i) a tariff intended to revise or supplement rates or schedule constituting part of an ongoing general rate application shall be filed only in the docket containing the general rate application and (ii) the failure to comply with a rule regarding a tariff filing may be the basis for the Commission rejecting the filing.

20. EAI respectfully submits that the good cause exists to support this request and that the public interest findings already have been made by the Commission, as EAI's tariff modifications are proposed consistent with in the Commission's directive in Order No. 15 in Docket No. 13-002-U that the effective date of the Rider EECR adjustment, and the associated calculations incorporated within that annual adjustment, be changed to January 1 of the year following the Rider EECR.²

² Order No. 15 in Docket No. 13-002-U at 4. Included in EAI's waiver request is a waiver with respect to the criteria in RPP 7.02(a)(2). The Commission's directive in Order No. 15 in Docket No. 13-002-U also supports that these criteria in the RPP need not be specifically addressed in this context.

SERVICE LIST

21. EAI requests that the following individuals be placed on the service list as its representatives in this Docket:

Laura Landreaux, Vice President
Regulatory Affairs – Arkansas
Entergy Arkansas, Inc.
P. O. Box 551
Little Rock, Arkansas 72203
Telephone: (501) 377-5876
lraffae@entergy.com

Matthew R. Suffern
Assistant General Counsel
Entergy Services, Inc.
425 W. Capitol Avenue
P. O. Box 551
Little Rock, Arkansas 72203
Telephone: (501) 377-5855
msuffer@entergy.com

WHEREFORE, EAI respectfully requests that the Commission (i) approve its Application as described herein and in the supporting testimony of EAI's witnesses, which approval would include approval of the Company's proposed portfolio of EE programs for the 2016 program year, the 2016 Plan and the associated budget for that program year, the redetermined Rider EECR rate, and the tariff changes to Rider EECR; (ii) grant EAI's motion to file and have considered in this docket and outside of its pending general rate application in Docket No. 15-015-U the proposed amendments to the Rider EECR tariff; and (iii) grant all other appropriate relief.

Respectfully submitted,
ENTERGY ARKANSAS, INC.

By: /s/ Matthew R. Suffern

Matthew R. Suffern
Assistant General Counsel
Entergy Services, Inc.
P.O. Box 551
Little Rock, AR 72203
Telephone: (501) 377-5855

Kimberly Bennett
Senior Counsel
Entergy Services, Inc.
P.O. Box 551
Little Rock, AR 72203
Telephone: (501) 377-5715

ATTORNEYS FOR ENTERGY
ARKANSAS, INC.

CERTIFICATE OF SERVICE

I, Matthew R. Suffern, do hereby certify that a copy of the foregoing has been served upon all parties of record by forwarding the same by electronic mail and/or first class mail, postage prepaid this 1st day of June 2015.

/s/ Matthew R. Suffern
Matthew R. Suffern

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION)
OF ENTERGY ARKANSAS, INC. FOR)
APPROVAL OF ENERGY EFFICIENCY) DOCKET NO. 07-085-TF
PROGRAMS AND ENERGY EFFICIENCY)
COST RATE RIDER)

EAI APPLICATION EXHIBIT-1
ENERGY EFFICIENCY PROGRAMS
PLAN FOR 2016

Entergy Arkansas, Inc

2016

Energy Efficiency Program Plan

Docket No. 07-085-TF

June 1, 2015

**Entergy Arkansas, Inc.
2016 – 2018 Energy Efficiency Program Plan
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Executive Summary

Entergy Arkansas, Inc. ("EAI" or "the Company") has prepared this portfolio of energy efficiency ("EE") programs (the "Plan") pursuant to Conservation and Energy Efficiency Rules adopted by the Arkansas Public Service Commission ("APSC" or the "Commission") in its Order No. 18 in Docket No. 06-004-R (the "Rules"), as well as its Order No. 25 in Docket No. 13-002-U, where the Commission directed EAI to file its next round of EE plans, programs, portfolios, and budgets on June 1, 2015.

The portfolio of programs included within this plan is designed to offer cost-effective EE programs to EAI customers, with programs developed for most of EAI's customer classes. Existing programs that could not be made cost-effective have been removed from EAI's portfolio of programs; in particular, the New Homes Program will not be offered in 2016.

All program categories described in the Rules are contemplated within the programs that EAI proposes to offer to customer in this portfolio. The programs proposed in this plan are built upon the programs implemented by EAI to date since the Rules were adopted, i.e., the Company's Quick Start Energy Efficiency Programs that have been implemented since late 2007 through 2011 and its Comprehensive programs that have been in place since 2011. The portfolio satisfies the Benefits and Objectives outlined in the Rules, and indeed, the Plan goes beyond them in an effort to bring significant value to EAI's customers through the delivery of effective conservation, EE, and demand response programs. The programs described in this plan were developed initially through a robust planning process and the final programs, as presented in this Plan, were updated through EAI's request for proposal ("RFP") process.

As EAI has indicated in several filings made with the Commission, EAI's ability to offer expanded EE programs to its customers historically has been limited by two key factors. One factor has been the need to develop a vendor/contractor infrastructure to support programs that would be offered in Arkansas. Another limiting factor was the lack of a cost recovery mechanism that would authorize utilities in Arkansas to recover the lost contribution to fixed costs ("LCFC") as well as an incentive/shared savings mechanism to promote EE investment. As EAI has discussed previously, through its past work with EE Programs, EAI has made great strides in developing the vendor/contractor network in Arkansas. EAI's efforts as well of the efforts of the Arkansas Energy Office ("AEO"), have led to the development of a contractor/vendor network that can provide support to EAI, and other Arkansas utilities, for these EE program offerings.

For the second factor, the Commission addressed the LCFC issue in Order No.14 in Docket 08-137-U, providing EAI and other APSC-jurisdictional utilities with a mechanism for recovering the LCFC, as well as an incentive for utilities to invest in EE. Those orders have reduced the disincentive for utilities to invest in EE; and in fact, the success of EAI's programs has helped Arkansas become one of the leading states in the South offering cost-effective, comprehensive energy efficiency programs. This 2016 program plan is designed to ensure that past success continues for another year. However, it should also be noted that if any action is taken to remove or reduce LCFC recovery and incentives for EE programs, EAI, and presumably other APSC-jurisdictional utilities, will once again be limited in their ability to offer EE programs in Arkansas.

EAI's 2016 Plan is the first year of a three year plan that already was in development prior to the Commission to extending the current programs¹ through the end of 2016 and also moving the next three year plan filing to June of 2017. The 2016 Plan was based upon the Commission's guidance in Docket No. 13-002-U, Order No. 7, which required EAI to move from using leveled capacity costs (EAI's preferred planning economic analysis for supply side resources) to market-based and Real Economic Carrying Charge ("RECC") based capacity costs for cost-effectiveness testing. However, subsequently in Order No. 25 in that docket, the Commission directed the utilities to utilize the current methodology in assessing the programs for the 2016 program year. Accordingly, EAI used its most recent avoided costs - the same costs used in the April 1, 2015 annual report filing - as the basis for the benefit-cost analysis for the 2016 program year.

Summary of the Portfolio

EAI's 2016 Plan:

- **Is designed to exceed the APSC's goals, with planned saving of 260 GWh over 2016**
- **Is cost-effective with a Portfolio Total Resource Cost Test ("TRC") of 3.23**
- **Is driven by APSC's vision of Comprehensiveness**
- **Includes total net benefits to EAI customers equal to \$160 Million over the lifetime of the EE implemented**

The portfolio is built around two broad program categories: Residential Solutions and Business Solutions. These categories provide easy entry points for program participants and are a natural evolution from the current Comprehensive Portfolio offered by EAI. Within each category, a number of programs will be offered; programs that were selected based on a number of factors, including the successful infrastructure created by current EAI Programs, a review of other best practice EE programs from around the country, a rigorous analytical process. Final programs were determined through EAI's procurement RFP process. The tables below summarize important portfolio and program results and metrics.

¹ Docket 13-002-U, Order No. 25, April 7, 2015

Table 1: Program Savings & Budget Summary

EAI Program	TRC Test	Annual MWh Savings	Annual MW Savings	Total Budget (\$1,000s)
	Ratio	2016	2016	2016
Lighting & Appliances	2.87	34,369	3.9	\$4,467
Home Energy Solutions	2.40	28,104	9.8	\$15,509
Efficient Cooling Solutions	3.20	17,711	9.5	\$2,889
Energy Solutions for Multi-Family	1.91	3,188	0.7	\$702
Energy Solutions for Manufactured Homes	2.58	1,834	0.6	\$635
Residential Benchmarking Pilot	1.98	6,944	5.0	\$686
Residential Direct Load Control	11.36	0	30.0	\$4,332
C&I Midstream	5.80	14,343	2.8	\$977
C&I Solutions Program	2.11	120,511	16.5	\$25,656
Small Business	1.87	12,140	1.8	\$2,515
City Smart	1.99	14,000	2.3	\$2,782
Agricultural Energy Solutions	2.04	7,162	1.0	\$965
Agricultural Irrigation Load Control	8.61	0	16.3	\$3,523
Energy Efficiency Arkansas	n/a	n/a	n/a	\$327
Total Portfolio	3.23	260,304	100.2	\$65,965

2014 Weather Adjusted MWh Sales	21,001,325
Estimated 2014 Opt-Out (Self-Direct) Sales MWh	2,984,120
2014 MWh Sales Adjusted for Opt-Out MWh ("Baseline Sales")	18,017,205
APSC MWh Savings Goal (0.90% of Baseline Sales)	162,155
2016 Portfolio MWh Savings as % of Baseline Sales	1.4%

Table 2 Portfolio Budget

Portfolio Cost Summary	2016	
	Total Budget (\$1,000s)	% of Budget
Incentives	\$43,476	65.9%
Non-Incentives	\$22,489	34.1%
Total Budget	\$65,965	100.0%

Table 3: Lost Contribution to Fixed Costs & Incentives²

	LCFC Value (\$1,000s)	Shareholder Incentive Value (\$1,000s)
2016	\$9,173	\$4,618

² LCFC values shown in table do not include any annual escalators. However, LCFC values used in the calculation of program and portfolio cost-effectiveness include an annual GDP inflator of 2% and include a 2% annual Electric & Fuel Charge Escalation Rate. This is because most measures have an effective useful life (EUL) longer than three years, and many have EULs of 15 years or more. Because this is a long time horizon, it is important to include these escalators in the benefit-cost calculations.

Table 4: Portfolio Cost-effectiveness Results

Portfolio Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 159,831,106
	Benefit-cost ratio	3.61
	NPV (average installation)	\$ 59.27
Ratepayer Impact Measure (RIM)	NPV	\$ 111,604,859
	Benefit-cost ratio	1.72
	Lifecycle revenue impact per kWh	\$ 0.021
	2016 revenue impact per kWh	\$ 0.249
Total Resource Cost Test (TRC)	NPV	\$ 183,810,408
	Benefit-cost ratio	3.23
	Levelized cost per kWh	\$ 0.038
Program Administrator Cost (PAC)	NPV	\$ 198,624,842
	Benefit-cost ratio	3.94
	Levelized cost per kWh	\$ 0.016

EAI's portfolio of Residential Energy Efficiency Solutions programs includes attractive value propositions and considerable energy saving opportunities for all of EAI's residential customers. These programs offer multiple participation opportunities for owners and renters of single family homes, apartments and condominiums, and mobile/manufactured homes, alike. Residential Solutions is comprised of seven programs, which are summarized below.

EAI is a member of the Arkansas Weatherization Network and results in an important update to Residential Energy Efficiency Solutions. With the termination of the Arkansas Weatherization Program (AWP),³ Cost-effective Consistent Weatherization Approach measures previously offered through the AWP program are now offered through Home Energy Solutions, Energy Solutions for Multifamily, and Manufactured homes.

1. Residential **Home Energy Solutions** will achieve long-term, significant cost effective electricity savings through the use of local auditors and contractors who will help residential customers analyze their energy use and identify opportunities to improve the energy efficiency of their homes; install low-cost energy-saving measures including those covered through the Consistent Weatherization Approach; and identify and provide incentives to encourage customers to install all identified premium efficiency equipment and products that will yield savings.
2. The **Energy Solutions for Multifamily** program will target multifamily property owners, managers and renters. The program will provide free audits and direct-install measures as well as bonus incentives for property owners who co-fund additional efficiency projects. Cost-effective Consistent Weatherization Approach measures, and AC tune-ups are among the additional measures that will be offered through this program.
3. **Manufactured Homes** will target manufactured (mobile) home owners as well as mobile home community managers and owners. The program works with mobile home community owners, managers and residents through community meetings and direct marketing, and by providing energy audits and direct install measures free of charge in common areas and in homes (where permitted). Cost-effective Consistent

³ Effective December 2014 per APSC order #22

Weatherization Approach measures and AC tune-ups are among the additional measures that will be offered through this program.

4. **CoolSaverSM – Residential and Small Business AC Tune-up Program** will provide residential and small business customers with an opportunity to lower the energy consumption and cost associated with keeping their homes and businesses cool and comfortable in the summer. Customers with functioning central air conditioning can improve the efficiency of their systems with a comprehensive tune-up. The program will provide contractor training to identify opportunities and administer comprehensive tune ups which will go far above and beyond industry standard practice.
5. The objective of the **Residential Lighting & Appliances** program is to increase awareness and sales of energy efficient lighting and appliances to residential and small business customers. The program offers customers the opportunity to acquire a variety of discounted products that are ENERGY STAR qualified or better. The products will be offered at markdown prices or with mail-in rebate coupons through retail locations and an online clearinghouse, as well as through direct to customer promotional giveaways.
6. **Residential Direct Load Control**. This opt-in load control initiative allows the Company to cycle off a participant's home central air conditioner ("CAC") condenser during peak events. Over the long-run system and customer benefits include, among others, lower rates (due to a lesser need to dispatch the most expensive generating units) and better regional air quality (since peaking units emit higher levels of criteria pollutants relative to other units). To minimize discomfort, the enabling technology allows the air-handler fan to remain powered to circulate air throughout the house.
7. **Energy Efficiency Arkansas ("EEA")⁴** – EAI is a partner in this statewide program implemented by The Arkansas Energy Office to provide education and training for key Arkansas market players to support the expansion of EE.

EAI's proposed **Business Solutions** programs include attractive value propositions and considerable energy saving opportunities for every type of non-residential ratepayer. Business Solutions is comprised of six programs, which are summarized below.

1. **Large C&I Solutions Program**. This program offers participants two tracks to enroll in. The Prescriptive channel of this program offers an easy way for non-residential customers to see significant savings without having to worry about complex analyses or detailed participation rules; incentives and claimed savings are based on deemed values for each piece of equipment. Participants receive a per unit rebate for installing equipment from a large menu of qualified technologies, such as lighting and controls, variable speed drives, HVAC equipment, refrigeration equipment, office equipment, agricultural, and food service equipment. The Custom element of this program targets projects where M&V is required; often where measures are not well represented, or omitted entirely, in AR TRM 4.0, or when a high level of technical assistance is required on the part of the participant. Rebates are paid on a \$/kWh saved basis and are capped according to numerous factors.
2. **Commercial Midstream Lighting** is designed to provide fast, easy energy efficiency solutions for non-residential customers at the point-of-sale. Two advantages of this program design are that it can ramp-up quickly, and that there is no application process for the customer. Instead, the price of the measure is reduced at the point of sale. Cooperation with distributors is key strategy for promoting measures incentivized through midstream channels.

⁴ Note: This program is implemented by the Arkansas Energy Office and EAI supports the program via prescribed funding levels. More details of the program will be within the Energy Efficiency Arkansas program filing by the Arkansas Energy Office.

3. **Small Business** is tailored to meet the needs of EAI's small business customers, generally those with less than 100 connected kW, which constitutes a large majority of non-residential ratepayers. The program will provide audits, identify cost-effective efficiency retrofit opportunities and deliver direct installation, financial incentives and other services to encourage early replacement of existing equipment with high efficiency alternatives, as well as the installation of new measures. The program will offer strategies tailored to overcome the particular challenges small businesses face in regards to internal resource allocation and access to capital.
4. **CitySmartSM** will target Local Public Entities. Due to the unique operational considerations of these customers compared with private businesses, EAI's experience has shown that a stand-alone program offering is needed for this market. Customers eligible for CitySmartSM include but are not limited to municipalities, K-12 schools, and universities. CitySmartSM will offer similar technologies the Small Business and Large C&I Solutions programs, and will include prescriptive and custom participation channels.
5. **Agricultural Energy Solutions** will help farms, as well as agricultural-industrial customers with less than 1 MW in peak demand in the Company's territory overcome first costs and education barriers to EE through energy audits, and prescriptive and custom projects.
6. **Agricultural Irrigation Load Control** is a Commission-approved peak load control program that provides incentives to qualified agricultural customers for allowing EAI to interrupt electric service to well pumps during the summer. Service is controlled using cellular technology through load control devices.

As reflected above EEA is implemented by the Arkansas Energy Office, with funding provided by EAI and the other investor-owned utilities in Arkansas. At the time of preparing this filing, EAI prepared estimated EEA costs based upon historic years and increasing those historic years in a manner consistent with EAI's other program expansions and including these estimated budget within EAI's portfolio for purposes of the cost/benefit analysis. EAI plans to adjust the estimated EEA budget once approved budgets are known.

Distribution of Program Savings & Costs

Figure 1 below illustrates the distribution of savings in 2016. Non-residential programs account for 65% of planned savings. Of this 72% is accounted for by C&I Solutions; this is commensurate with the ability to scale this program very quickly and achieve significant savings through a large volume of projects.

Figure 2 illustrates the distribution of program budget in 2016. Non-residential programs account for 55% of the budget. Residential programs account for a higher % of budget than they do savings because - on average - residential programs cost more on a per kWh basis than do non-residential programs.

Figure 1: Distribution of 2016 Annual MWh Savings by Customer Class

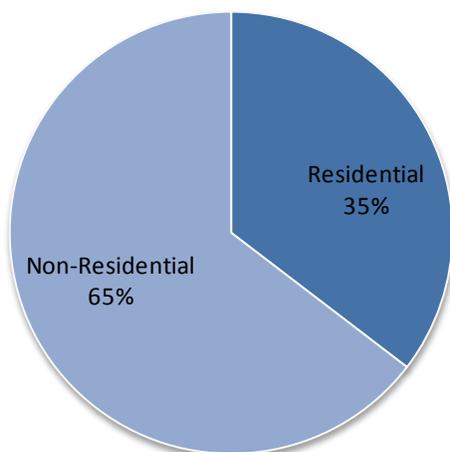
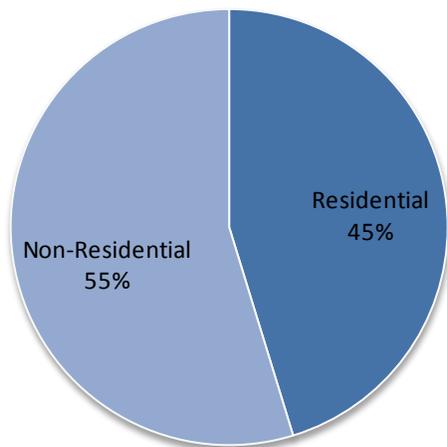


Figure 2. Distribution of 2016 Program Budgets, by Customer Class



The Planning Process

The programs proposed in the Plan were developed with recognition of the Commission's directives in Order No. 17 in Docket No. 08-144-U and Docket 13-002 U, Order Nos. 7, 25, and 26, as well as, and more generally, the conservation and EE benefits and objectives set forth in the Rules. The portfolio was developed through a bottom-up analysis of a comprehensive list of EE measures, as well as a number of other factors, including the experience gained through the Company's Quick Start and Comprehensive Programs, best practice program designs, and best

estimates of program and portfolio costs and customer participation based on EAI's experience, and the knowledge and expertise of program contractors selected through EAI's RFP process.

In Order No. 25 in Docket No. 13-002-U, the Commission agreed to determine the utilities updated three year targets after the Potential study was completed and to establish a new three year planning date of June 1, 2017. Orders No. 25 and 26 in that docket further stated the targets would remain at 0.9% of 2014 sales adjusted for self direct large commercial and industrial customers and delay policy changes in Order 7. However, at the time those directives were provided, EAI had already completed a significant level of work for its next three year plan that was to be filed on June 1, 2015. Therefore, EAI's proposed portfolio of programs for the 2016 program year utilizes the first year of that three year plan. The Plan was built upon EAI's understanding of the policy changes in Docket No. 7 and is designed to meet the Commission-directed targets for the 2016 program year. Accordingly, EAI believes this portfolio satisfies the Commission's directives in the Rules and in Order No. 25 in Docket 13-002-U.

In addition, in Docket 08-144-U, Order No. 17, the Commission set forth a Checklist of Factors that it will use to determine whether a utility's proposed EE programs and EE portfolio are comprehensive under the Rules. In section 1 of this plan, EAI provides its analysis of how this proposed plan, and the programs contained therein, satisfy each of the factors set forth by the Commission. Further, through past independent Evaluation, Measurement and Verification, EAI's portfolio of EE programs has been demonstrated to meet or exceed the Comprehensiveness factors, and since the 2016 proposed programs are updated with some new measures, the Consistent Weatherization Approach and Order 7 cost-effectiveness policies, EAI is confident the program s will continue to meet the requirements of Order No. 17.

The APSC's Checklist of Factors was a touchstone of the program analysis; in addition to APSC's cost-effectiveness requirements, the Checklist was the basis upon which programs were considered until EAI arrived with a set of programs grounded in each of the seven factors.

The program designs were also developed around the list of cost-effective measures, customer count and energy use by segment, rate class, business classification, state economic and demographic data, building and appliance codes and standards, and historical EAI program performance. Market barriers for each customer segment were identified and best practice strategies to address these barriers were built into the program delivery mechanisms and budgets. The final program designs were updated through EAI's RFP process.

Order No. 17 also reiterates the Commission's directive, consistent with the Rules, that EE programs/portfolios are planned to be cost-effective. As discussed in greater detail in Section 2 of this plan, the portfolio contemplated under this plan is cost-effective. Cost-effectiveness was defined by applying the TRC Test, as defined by the California Standard Practice Manual (CASPM). This test was used to determine the cost-effectiveness of measures, programs, and the entire portfolio. Each program included in this filing was also evaluated using Program Administrator Cost (PAC) Benefit-Cost test, as defined by the CA SPM.

Other Related EE Policy Issues

In 2010, through a series of orders, the Commission provided guidance on a number of policy issues associated with the implementation of EE programs in Arkansas. As discussed above

and throughout later sections of this plan, EAI has relied upon that guidance in developing the proposed portfolio contemplated in this plan. However, for certain issues, the rules and/or protocols for implementation of the Commission's directives are being developed through other proceedings.

In Order 14 in Docket No. 08-137-U, the Commission approved a LCFC mechanism. Several inputs to that calculation will be derived from information contained with and/or analyses conducted in connection with this plan. In addition, EAI anticipates being eligible to receive incentives pursuant to Order 15 in Docket No. 08-137-U. However, specifics regarding these key aspects are not discussed in this plan, but rather are discussed in the application and testimony seeking approval of this plan.

Another issue resolved by the Commission provides the ability for certain commercial and industrial ("C&I") customers to evaluate their participation options for a utility's EE programs. In Order Nos. 10 and 1 in Docket Nos. 10-010-U and 10-101-R, respectively, the Commission ordered the establishment of a rulemaking docket to develop amendments to the Rules to allow a Self-Directed Energy Efficiency Option ("S-D Option") for large C&I customers of investor-owned electric and gas utilities. That Order contemplates that large C&I customers ultimately will be able to exercise the S-D Option after their applications for approval to exercise that option are approved by the Commission. Further, State law has provided a more a simplified Self Direct option for Industrial classes of customers .The Order and the Statutes discuss various requirements that the Commission directed to be included within the amended Rules. In this plan, EAI has assumed that all C&I customers that have received self direct certificates will not change their S-D status and therefore will not be eligible for program participation. However, EAI's projected savings and targets will be affected by any new large C&I customers that successfully apply to the Commission to exercise the S-D Option.

On December 10, 2010, the Commission issued an Order in a number of dockets that established a collaborative process for developing an EM&V protocol and amendments to the Rules in connection with EE programs in Arkansas. The Commission concluded that "once finalized by the Commission, the resulting EM&V protocols shall be used to evaluate EE program portfolio goal achievement, to calculate LCFC, and to calculate any incentive award amounts, except to the extent such results may be affected by default values approved in [that] Order." Accordingly, EAI has implemented and will continue to implement its EM&V process consistent with the forthcoming direction from the Commission on this issue.

EAI used the Net to Gross ("NTG") that have been calculated through independent EM&V since 2011 as the basis for the 2016 program net energy savings estimates and cost-effectiveness analysis. This Plan also includes an annual budget of based upon the actual cost of EM&V since 2011.

1. Introduction

1.1. Goals of the Comprehensive Filing

1.1.1. APSC Comprehensiveness Checklist

In Order No. 17 in Docket No. 08-144-U, the Commission set forth a Checklist of Factors it will use when determining whether a utility's proposed EE programs and total EE portfolio are Comprehensive pursuant to C&EE Rules. In this section, the Company identifies these seven factors and discusses how EAI's EE proposed portfolio meets the particular aspect(s) of Comprehensive articulated in each factor

Factor 1: Whether the programs and/or portfolio provide, either directly or through identification and coordination, the education, training, marketing, or outreach needed to address market barriers to the adoption of cost-effective energy efficiency measures.

In EAI's program descriptions provided in Section 3 of this Plan, EAI identifies the target market(s) barriers to EE and outlines specific implementation strategies to help overcome these barriers. Nearly all market barriers fall into general categories: Availability, Awareness and Attractiveness:

- **Lack of market availability** –The efficient technology or service is not adequately available in the marketplace.
- **Lack of customer awareness** – The customer is not aware of the technology or service, its characteristics, and how to purchase it.
- **Attractiveness** – The technology or service is not attractive in terms of financial payback, convenience of project development and installation, and other attributes.

The program designs specified in the Plan build on the success of the Comprehensive programs in addressing market barriers to energy efficiency for each target customer segment by continuing successful education, training, marketing, and outreach strategies, and developing new strategies or program elements, such as Commercial Midstream Lighting, in order to adapt to changing baseline conditions, market maturity, regulatory requirements, and other factors. EAI has also adapted its Multifamily, Manufactured Homes, and Home Energy Solutions programs to accommodate the Consistent Weatherization Approach, an effort which better coordinates strategies to overcoming market barriers to energy efficiency in the residential sector.

Factor 2: Whether the programs and/or portfolio have adequate budgetary, management, and program delivery resources to plan, design, implement, oversee and evaluate energy efficiency programs.

Most programs described in this portfolio will be delivered in coordination with third party contractors selected by EAI. The exception is EEA, which is run by the Arkansas Energy Office. The third-party program delivery model is the dominant strategy employed by both utility and non-utility administered DSM programs nationwide.

Third party implementers will continue working closely with EAI DSM staff on all aspects of DSM program planning, delivery, reporting and EM&V. In order to adequately supervise the proposed portfolio of programs, EAI will need to maintain staffing levels currently in place through the end of 2016. The current staffing levels have proven to be effective in EE achievement and managing programs effectively as demonstrated by the Commission audit in 2014.

Factor 3: Whether the programs and/or portfolio reasonably address all major end-uses of electricity or natural gas, or electricity and natural gas, as appropriate.

The first step in the Company's analysis was to evaluate a comprehensive set of EE measures. For this analysis, the PSC approved Arkansas Technical Resource Manual, version 4.0 (AR TRM v. 4.0) was the major source of measure information. This list was supplemented with measure data from a variety of nationally recognized sources, including California's Database for Energy Efficiency Resources ("DEER"), and the federal ENERGY STAR program, among others.

In total there are 263 measures included in the plan, spanning 12 end uses:

1. Agricultural
2. All (e.g., Benchmarking)
3. Appliances
4. Building shell
5. Custom
6. Electronics
7. Hot Water
8. HVAC
9. Lighting
10. Motors
11. Plug Loads
12. Refrigeration

Measures were assessed for cost-effectiveness using the Total Resource Cost ("TRC") test, which compares the incremental costs of efficiency measures with the utility's avoided costs. All but five of the 263 measures in this Plan have a measure TRC of 1.0 or higher. These five measures and their associated programs are shown below. Savings for these measures total 3,105 lifetime MWh, or 0.1% of total portfolio net lifetime MWh savings. Note that all the programs in which these measures exist are cost-effective.

Program	Measure
Small Business	Integrated-Ballast Compact Fluorescent Lamps (CFL)
Small Business	Lighting Controls
Efficient Cooling Solutions	ECONOMIZER REPAIR
Energy Solutions for Manufactured Homes	Advanced Power Strips-Home Office
Energy Solutions for Multi-Family	Advanced Power Strips-Home Office

Factor 4: Whether the programs and/or portfolio, to the maximum extent reasonable, comprehensively address the needs of a customer at one time, in order to avoid cream-skimming and lost opportunities.

Eight of the Company's proposed 14 programs (11 if load control initiatives and EEA are excluded) are specifically designed to implement projects that are comprehensive with respect to homes or buildings and/or end uses:

1. **Residential Benchmarking Pilot.** This program encourages participants to implement both behavioral and technological changes to reduce home energy use.
2. **City Smart.** In addition to offering incentives, this program assists participants with energy use benchmarking, and technical assistance in developing Energy Master Plans.
3. **Home Energy Solutions.** This program offers two levels of home energy audits and incentives for whole home EE projects, including incentives for cost-effective "Consistent Weatherization Approach" measures.
4. **Multifamily.** This program provides direct install measures for multiple end-uses, and offers incentives for measures that impact multiple units in multifamily buildings, including cost-effective "Consistent Weatherization Approach" measures and AC tune-ups.
5. **Manufactured Homes.** This program provides direct install measures for multiple end-uses, and offers incentives for other measures that impact multiple end-uses, including cost-effective "Consistent Weatherization Approach" measures and AC tune-ups.
6. **Residential & Small Business Cooling Solutions ("Cool Saver").** CoolSaver addresses Factor 4 by offering incentives for AC-tune-ups, which are efficiency services that go well beyond "cream skimming."
7. **Small Business.** This program emphasizes retrofit projects for small Business customers.
8. **Agriculture Energy Solutions.** This program provides energy audits and calculated incentives for farms and small agricultural-industrial facilities.

These programs represent 35% of planned energy savings (kWh) and 40% of program⁵ budgets. In addition, the Custom element of the C&I Solutions program provides services and incentives for calculated energy savings and comprehensive projects - such projects cannot be considered "cream-skimming." Given the savings goals and cost-effectiveness guidelines set forth by the APSC, the Company concludes that its proposed investment in these programs places the emphasis of EAI's efficiency offerings as far as reasonably possible from "cream skimming" or addressing only "low-hanging fruit."

Note that compared to historical program performance in other jurisdictions, the Company will have to meet aggressive goals without relying nearly as heavily on several very cost-effective measures. Thus, where comparisons to achievements in other states or areas frequently may be referenced as an example of what can be achieved in Arkansas today, those historic results have relied heavily on areas of EE that today may not be available in Arkansas in an order of magnitude that existed in those other states and jurisdictions. Examples of this include:

1. The Energy Independence and Security Act of 2007 (EISA) set energy efficiency standards for light bulbs manufactured from 2012 forward. From 2012 through 2014, Tier

⁵ Budget calculation excludes load control program budgets. If these program budgets are included, these nine programs represent 50% of the total portfolio budget.

1 of EISA took effect, phasing-out the manufacture and import of traditional filament incandescent 100W bulbs in 2012 and 75W bulbs in 2013. In 2014, the EISA legislation impacted 60 watt and 40 watt incandescent light bulbs, which are the most common light bulbs in use. Today, "standard" light bulbs available in stores are about 18% to 30% more efficient than standard bulbs that were available before EISA went into effect.

2. U.S. DOE rules pertaining to commercial lamps and ballasts are reflected in baselines for linear florescent lighting. These rules result in a 20% improvement in baseline efficiency for linear florescent lamps. This is important because efficient linear florescent lighting accounts for the largest portion of historical commercial lighting savings in many jurisdictions.
3. U.S. DOE energy conservation standards for residential heat pumps (HPs) and single package central air conditioners (CACs) go into effect in 2015 and 2016, respectively. The improvement from a SEER 13 to a SEER 14 baseline for these units has a negative impact on the savings and cost-effectiveness of CAC and HP measures.

The Company's inclusion of EE programs that are more prescriptive⁶ or mass market⁷ in nature is necessary not only for the Company to meet savings goals but because these programs focus on customer decision types that are not necessarily Comprehensive in nature. In working towards the Company's and the Commission's goal for EAI's energy efficiency plan to be truly comprehensive, EAI will seek to influence every type of customer decision, be it straightforward lighting projects, new appliance purchases, or whole home and business projects.

Factor 5: Whether such programs take advantage of opportunities to address the comprehensive needs of targeted customer sectors or to leverage non-utility program resources.

The first section of Factor 5, "Whether such programs take advantage of opportunities to address the comprehensive needs of targeted customers..." is addressed above under the discussion of Factor 4.

There are three sources of non-utility program resources that the Company can leverage through its EE programs.

1. **State Programs & Incentives:** EAI is supporting EEA program through this plan. EAI also will leverage other state support, where appropriate. For example, the Small Business Direct Install Program will promote the Arkansas Small Business Revolving Loan Fund to small business owners.
2. **Third Party Financing:** EAI will continue to identify and promote, off the utility bill, third party financing options for customers undergoing comprehensive EE projects.

⁶ Multifamily, Mobile Homes and C&I Prescriptive.

⁷ This includes Lighting & Appliances.

3. In addition, programs will leverage **EPA’s ENERGY STAR branding**, where appropriate.

Factor 6: Whether the programs and/or portfolio enables the delivery of all achievable cost-effective energy efficiency within a reasonable period of time and maximizes net benefits to customers and to the utility system.

The Company’s Comprehensive Plan is designed to maximize cost-effective electric savings over the three-year program period, and to continue market transformation and the National Action Plan for Energy Efficiency’s (“NAPEE”) vision of attaining all achievable energy efficiency by 2025 in Arkansas. During this period, the APSC’s stated goals will be achieved through a mixture of cost-effective prescriptive and comprehensive EE measures and projects across all applicable EAI customer segments: Residential Single Family, Manufactured Homes, and Multifamily; Small C&I, Large C&I, Agriculture, and Government.

Designing The Plan required balancing maximization of benefits, cost-effectiveness, and the costs needed to offer the full range of range of programs required for The Plan to meet the comprehensiveness check list. Through the bottom-up process described in this plan, EAI examined a comprehensive set of measures and program designs. The set of programs ultimately developed through the planning process included cost-effective versions of existing programs, plus new programs or program elements, including Commercial Midstream Lighting and new offerings for Small Agricultural-Industrial customers through the Agricultural Energy Solutions program. All of these program designs were updated through EAI’s RFP process; these updated and final program designs are the basis for the cost-effectiveness results set forth in this plan.

Factor 7: Whether the programs and/or portfolio have EM&V procedures adequate to support program management and improvement, calculation of energy, demand and revenue impacts, and resource planning decisions.

The Company has a robust data tracking system.⁸ As outlined in each program plan below, program personnel will track all the variables necessary to support more precise measurement of savings, LCFCs and incentives, and EAI will continue working with the EM&V contractor(s) to ensure the list of variables tracked is comprehensive.

QA/QC, including anticipated project verification standards, is outlined in the Delivery Strategy section of each program plan. The Company will continue working with implementers and EM&V contractors to ensure adoption of best practice quality control procedures that maximize the quality of work performed by participating contractors, while minimizing free-ridership.

⁸ Program administrative budgets include costs associated with maintaining the tracking system.

1.1.2. Consistency with APSC Rules

EAI is filing this portfolio of comprehensive EE programs in response to Order No. 25 in Docket No. 13-002-U, the Order in which the Commission directed EAI to file the 2016 EE plan, programs, portfolios, and budgets on June 1, 2015.

In Order No. 17 in Docket No. 08-144-U, the Commission provided additional guidance regarding what would be considered to be “Comprehensive” programs under the Rules, and EAI has described above how its proposed portfolio meets the elements set forth by the Commission. In addition, the portfolio of programs proposed in this plan satisfies the benefits and objectives of comprehensiveness currently set forth in the Rules. The portfolio is designed to offer cost-effective EE programs to each of EAI’s customer classes and covers all program categories described in the Rules. The programs proposed in this filing build upon the Company’s Quick Start EE programs that have been implemented since late 2007 and the Comprehensive programs that have been implemented in Arkansas since 2011.

This comprehensive set of programs will utilize the knowledge gained throughout programs offered since 2007 and the contractor networks and trade ally networks that have been established, and streamline the implementation process in a cost-effective manner to ensure stewardship of rate-payer funding. In addition, this comprehensive set of programs meets the benefits and objectives as set out in Section 2 of the Rules, as shown below.

Achieving the Benefits and Objectives of the Commission

The Comprehensive portfolio presented here will achieve the benefits and objectives outlined in Section 2 of the Rules.

- **Energy savings directly attributable to program activities.** The portfolio presented will save nearly 260GWh of energy and reduce demand by 100 MW in 2016.
- **Long-term and permanent changes in behavior, attitudes, awareness, and knowledge about energy savings and use of energy efficient technologies in order to achieve energy savings.** Marketing and training are the two primary methods through which this portfolio will achieve long-term and permanent changes. General awareness campaigns and program-specific marketing will raise awareness and understanding of energy saving and demand reducing opportunities for customers. Contractor training and education will change the business model of EAI’s trade allies and lead to long-term and permanent improvements in the delivery of EE services.
- **Permanent peak electric demand reduction.** The portfolio presented will reduce peak demand by an estimated 100 MW in 2016.
- **Energy cost savings and cost-effectiveness.** The portfolio presented is cost-effective with a TRC Test Ratio result of 3.18 and a PAC Test ratio result of 3.86.
- **Reliability enhancements.** The portfolio achieves peak-time demand reductions, which will reduce the stress on the Company’s generation at system peak. This reduction in peak demand will lead to enhanced reliability in the system.
- **Energy security benefits.** This portfolio will reduce per capita fuel needs for power generation and potentially reduce the demand for new generating facilities.
- **Economic development/competitiveness benefits.** Participating contractors, equipment retailers and distributors, and the state economy will all benefit through the

proposed portfolio. Incentives from the programs will drive demand for products and services, and maintain and create jobs in Arkansas.

- **Increases in system-wide capacity.** The portfolio achieves peak-time demand reductions, which increases the amount of capacity available.
- **Accelerating the commercialization of advanced or emerging technologies.** Through the implementation of these programs, the demand for energy-efficient technologies will increase dramatically in EAI's territory. Creating demand for these types of products will play a role in accelerating the commercialization of new energy-efficient technologies.
- **Improving affordability of energy for all customers.** The proposed conservation and EE programs offer incentives to customers to adopt cost-effective opportunities that will reduce their energy usage, and therefore reduce their energy bills.
- **Implementing programs in an efficient manner.** EAI will continue to work with implementation contractors EAI has selected through a competitive RFP process to implement the programs, and hold these contractors responsible for achieving targets within the budgets.

1.1.3. Program Launch

Because the 2016 programs are based upon previous program accomplishments, the launching of the programs should provide minimal work effort as compared to starting all programs new.

1.2. Treatment of Opt-outs

A Self-Direct Option was made available to commercial and industrial customers in 2012. The rules to provide guidance for this Opt-Out option are developed either through the Rules for Conservation and Energy Efficiency or through State statutes. Should customers choose to opt-out with the Self-Direct Option, they 1) are relieved of EECR charges on their electric bills other than for charges related to cost to administer the Self-Direct Option and 2) EAI will be able to adjust APSC established targets to compensate for customer who choose the Self-Direct Option.

1.3. Third Party Financing

EAI will continue to identify and promote off the utility bill third party financing options for customers undergoing comprehensive home EE projects.

2. The Planning Process

2.1. Summary

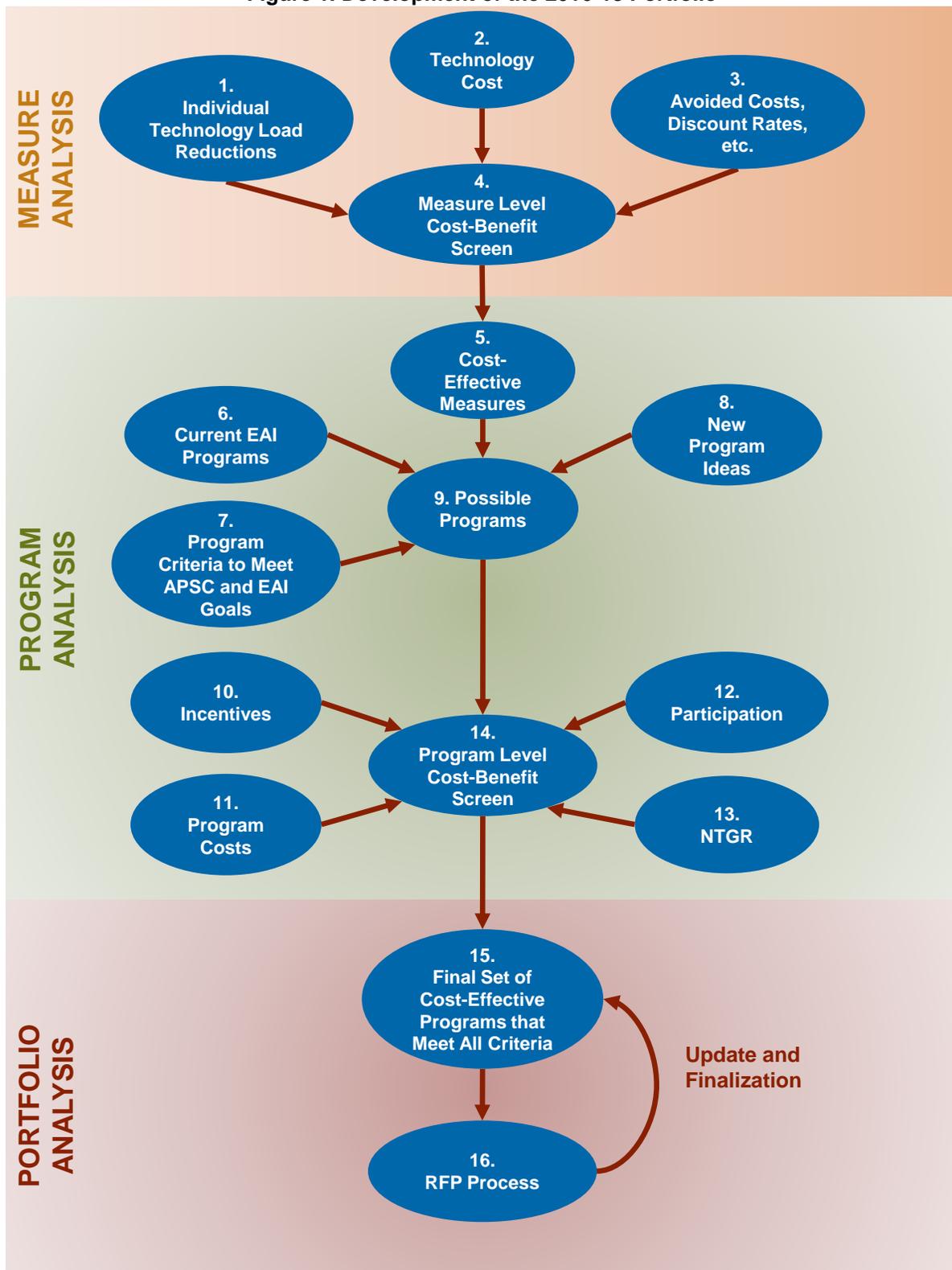
EAI's Comprehensive Energy Efficiency portfolio is the product of a multi stage analysis that used industry best practice in program design to arrive at a set of programs fulfilling APSC saving goals and definitions of "Comprehensiveness."

Figure 1 illustrates the program planning process. To summarize, EAI's planning process involved:

- A **bottom-up measure analysis** of applicable measures – drawn primarily from the Arkansas TRM 4.0;
- **Measure cost-effectiveness screening** – Measures were assessed for cost-effectiveness using the measure TRC test and PAC test;
- A **comprehensive program review** that began with an examination of EAI's existing programs and expanded to include new programs;
- **Development of program incentive and non-incentive costs** based on
 - Historical EAI program cost;
 - EAI program experience; and
 - EAI program implementation contractor experience in Arkansas and nationwide
- **Development of program participation estimates** based primarily on
 - Historical EAI program cost;
 - EAI program experience;
 - EAI program implementation contractor experience in Arkansas and nationwide;
 - A status review of important contractor networks, such as Home Energy Rating System ("HERS") raters, Building Performance Institute ("BPI") certified contractors and ENERGY STAR certified homebuilders; and

- Consideration of key demographic and housing data in the Company's territory, such as median income and housing types.
- **Program and portfolio rebalancing** to ensure the Plan meets APSC goals, definitions of Comprehensiveness, cost-effectiveness and other objectives;
- **Program updates and finalization through the Company's RFP process.**

Figure 1. Development of the 2016-18 Portfolio



3. EAI's Comprehensive Portfolio

3.1. Residential Solutions

EAI's portfolio of Residential Energy Efficiency Solutions programs includes attractive value propositions and considerable energy saving opportunities for all of EAI's residential customers. These programs offer multiple participation opportunities for owners and renters of single family homes, apartments and condominiums, and mobile/manufactured homes, alike. Residential Solutions is comprised of seven programs, which are described below.

3.1.1. Home Energy Solutions

PROGRAM DESCRIPTION

Residential Home Energy Solutions (HES) will achieve long-term, significant cost-effective electricity savings through the use of local auditors and contractors who will help residential customers analyze their energy use and identify opportunities to improve efficiency, install low-cost energy-saving measures, and identify and implement more comprehensive home efficiency projects. HES will also be the primary delivery mechanism for the statewide weatherization collaborative measures, as EAI is a member of the Arkansas Weatherization Network. The weatherization collaborative measures will be incentivized at full cost coverage and must comply with all other aspects of the statewide delivery approach as approved in Docket No. 13-002 U, Order No. 22 & 23. Where there is overlap in service with a participating gas utility, weatherization measures will be delivered jointly, under a pre-agreed cost sharing mechanism.

HES will offer two levels of home energy audits. The Tier 1 Audit will include a "walk-through" inspection and direct installation of low-cost measures, such as CFLs and hot water heater tank wraps. The Tier 2 Audit is a comprehensive home inspection with diagnostic testing, performed by a qualified contractor.

HES is designed to minimize the following market barriers to program implementation for EAI's residential customers:

- Lack of awareness of energy-efficient upgrades
- Lack of awareness of energy and cost savings due to properly operating systems
- Lack of easy access to qualified vendors and installers
- First cost barriers
- A lack of trust on the part of homeowners towards contractors

Key to the program's success will be developing a trained and certified group of home performance contractors⁹ capable of providing whole-house energy services in the market. HES contractors will be required to adhere to strict training, engineering, reporting, quality assurance, and other requirements set forth by EAI.

⁹ Specifically Building Performance Institute (BPI) or Residential Energy Services Network's (RESNET) rater certification.

TARGET MARKET

Single family residences (“SFR”s) are the primary target of the Home Energy Solutions program. SFRs comprise approximately 80% of EAI’s housing stock. Experience also shows that the following customer segments are strong candidates for this type of program:

- Homeowners who have shown interest in reducing their energy consumption and costs
- Homeowners that are in the market for home improvements
- Homeowners that have comfort issues in their home

MARKET SIZE

There are approximately 457,000 single family residences in EAI’s territory.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Measures eligible for rebates are likely to include, but will not necessarily be limited to:

HVAC

- Duct Sealing

Building Envelope

- Insulation, ceiling; statewide Weatherization measures

Water (Electric only)

- DHW Tank Wraps (Direct Install)
- Low flow faucet aerators (Direct Install)
- Low flow showerheads (Direct Install)
- Pipe insulation (Direct Install)

Controls

- Smart Thermostats

Lighting

- CFLs (Direct Install)

Incentives will be offered to cover core weatherization measures and a portion of the cost of the Tier 1 and Tier 2 audits outside of the core weatherization measures. Incentives for eligible measures will be related to specific savings and structured to encourage installation of multiple measures. Incentives for measures delivered jointly by a complementary gas program will be split accordingly to reflect a shared delivery approach as documented in the table below.

Measure	Entergy-only Incentive Level	Joint Utility Incentive Level
Comprehensive Assessment	\$150/\$300	50/50
Ceiling Insulation	\$0.17-\$0.48/sq-ft	50/50
Air Infiltration	\$308*	50/50
Duct Sealing	\$624*	50/50
Advanced Power Strip	\$16.46	n/a
CFLs	\$1.14/bulb	n/a

EAI's Comprehensive Portfolio

Faucet Aerators	\$0.47	n/a
Low-Flow Showerheads	\$13.94	n/a
*Average incentive, will vary based on home size and condition.		

FEDERAL & STATE INCENTIVES

EAI will coordinate with the Arkansas Energy Office, the Arkansas Office of the Department of Community Planning & Development, the local Building Owners and Managers Association (BOMA) chapter, the National Affordable Housing Management Association (NAHMA), amongst others. Leveraging the access and influence of the public agencies and property owner/management associations with these customers will give EAI the opportunity to conduct larger-scale direct installations of EE measures on multifamily properties.

THIRD PARTY FINANCING

EAI will continue to identify and promote off the utility bill third party financing options for customers undergoing comprehensive home EE projects.

DELIVERY STRATEGY

A contractor will assist the Company with implementation of Home Energy Solutions.

Key elements of program delivery include:

1. *Contractor recruitment and training:* The implementer will recruit HVAC, remodeling, insulation and weatherization contractors as well as HERS raters and other trade allies interested in offering home energy performance services to their customers, and arrange for them to participate in program training. Auditors/contractors will be required to sign a participation agreement, and abide by all program protocols and reporting requirements. Program auditors and contractors performing measures that require comprehensive testing will be required to understand key building science principles and maintain certifications from Building Performance Institute (BPI) or Residential Energy Services Network's (RESNET). All participating contractors must also attend a program training session and complete a partnership agreement that outlines expectations and customer service requirements. Program training will also include managing customer relations, how to talk about the program with homeowners, and how to properly conduct business services.
2. *Marketing:* The primary customer recruitment mechanism will be the direct marketing activities of participating auditors. However, the implementer will also recruit customers through other marketing channels, as well as general awareness activities. Program information will also be posted on EAI's Web site, and provided through the implementer provided call center, as appropriate.
3. *Audits and comprehensive home efficiency projects:*

- **Tier 2 Audit:** Participating auditors/contractors will provide comprehensive home energy audits for core weatherization measures and for interested customers for a fee outside of core weatherization measures – contractors will set their own prices for the audit. During the audit, and with the customer's approval, the contractor will install energy saving devices such as those listed under eligible measures. The audit will be designed to determine eligibility for program measures and to estimate potential energy savings that would result from installing the measures. Diagnostic evaluations conducted during the audit will include duct leakage and structure leakage testing and combustion safety testing where applicable.

The auditor will estimate pre-project (baseline) home energy consumption using historical customer billing data provided by the implementer (if authorized) and industry standard building energy modeling software. An audit report will be presented to the customer with recommendations for upgrades and information about incentive eligibility.

Program measures may be installed by the contractor performing the audit or other program qualified contractor(s). Post-audit home energy consumption estimates will be determined using industry standard building energy modeling software and included in the audit report.

- **Tier 1 Audit:** For customers who are either not eligible for core weatherization measures or do not want the comprehensive (Tier 2) audit the program will offer a walkthrough/visual inspection audit. Contractors will directly install low-cost measures, such as those listed under eligible measures. . An audit report will be presented to the customer with recommendations based on what can be determined by visual inspection. Homeowners may follow-up with more comprehensive improvements or request an upgrade to a more comprehensive energy audit. Where weatherization measures are delivered jointly with a complementary gas energy efficiency program, the participating contractor will be responsible for tracking fuel type information for all measures installed. This information will be critical in determining the appropriation of costs and savings for program tracking towards portfolio goals, as well as distribution of incentive payments.
4. *Incentive application:* Contractors will review and complete incentive applications with the customer and submit applications to the implementer's processing center with the customer's approval and signature.
 5. *Quality Control: QA/QC* performed by the implementer will likely include – at a minimum - the following:
 - Desktop review of 100% of the data submitted for incentives and saving calculation;
 - Performing field inspections on a minimum of 10% of performed program measures; inspection rates can be higher for auditors and contractors experiencing problems complying with program standards for any reason;

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- Providing feedback to contractor on QA/QC inspection results, including requests for corrective action when necessary;

6. *Incentive payment:* All program measure incentives will be deducted from the contractor or auditor's invoice for work performed. The contractor or auditor is responsible for sending required data to the incentive processing center to receive reimbursement.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Home Energy Solutions Budget Summary		2016	
Type	Total Budget	% of Budget	
Incentives	\$ 13,286,000	85.7%	
Non-Incentives	\$ 2,223,000	14.3%	
Total Budget	\$ 15,509,000	100.0%	

COST-EFFECTIVENESS

Home Energy Solutions Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 29,835,567
	Benefit-cost ratio	3.54
	NPV (average installation)	\$ 388.08
Ratepayer Impact Measure (RIM)	NPV	\$ 1,562,772
	Benefit-cost ratio	1.05
	Lifecycle revenue impact per kWh	\$ 0.003
	2016 revenue impact per kWh	\$ 0.053
Total Resource Cost Test (TRC)	NPV	\$ 19,307,095
	Benefit-cost ratio	2.40
	Levelized cost per kWh	\$ 0.049
Program Administrator Cost (PAC)	NPV	\$ 18,457,573
	Benefit-cost ratio	2.26
	Levelized cost per kWh	\$ 0.018

SAVINGS TARGETS & PARTICIPATION

Measure Installations	76,881
Annual MW Savings (Net, At Source)	9.8
Annual MWh Savings (Net, At Source)	28,104

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.2. Energy Solutions for Multifamily

PROGRAM DESCRIPTION

This current EAI program targets multifamily property owners (landlords) and managers, as well as apartment and condo renters to address the three principal barriers to multifamily energy efficiency:

1. *The split incentive barrier:* Multifamily building owners are disinclined to make energy efficiency improvements because they generally do not pay the energy bills for their units and renters are disinclined to pay for improvements to property they do not own.
2. *The income barrier:* Tenants of many multifamily units cannot afford the upfront costs of energy efficiency improvements. By providing direct installation (DI) measures at no cost, both unit and building efficiency is improved and tenants receive the benefit of lower utility bills. No capital investment is required for in-unit DI measures and little time is taken from the property owner/manager.
3. *The educational barrier:* Owners and occupants do not fully understand the economic, comfort and other benefits of energy efficiency.

The multifamily property sector is a commercial enterprise providing residential living spaces. In this quasi-commercial role, the property owner straddles the residential and commercial energy efficiency programs' definitions. EAI's Multifamily Program specifically addresses their unique needs, which are often overlooked, through a combination of incentives for both direct install and prescriptive measures, and through property owner and tenant education. Multifamily will also be the delivery mechanism for the statewide weatherization collaborative cost effective measures. As EAI is a member of the Arkansas Weatherization Network, cost-effective consistent weatherization approach measures will be incentivized at full cost coverage and must comply with all other aspects of the statewide delivery approach as approved in Docket No. 13-002 U, Order No. 22 & 23.

TARGET MARKET

Building owners and managers/landlords are the primary target audience. Multifamily building occupants are the secondary audience.

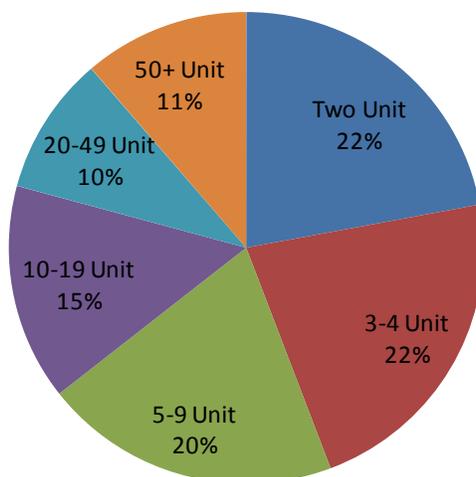
MARKET SIZE

There are approximately 47,000 multifamily units in EAI's territory, which represents 8% of the housing stock.

The distribution of multifamily units in EAI's territory is shown in the below figure.¹⁰ The current program targets multifamily complexes larger than 4 units in size. This represents about 56% of the multifamily housing stock; as such, the total eligible stock of multifamily units is 26,000 units.

¹⁰ Based on 2009 American Housing Survey data.

Figure 5: Distribution of Multifamily Housing in EAI's Territory (N=47,000)



Sources: U.S. Census Bureau and EAI

ELIGIBLE MEASURES & INCENTIVE STRATEGY

The program currently offers the below direct install (DI) and prescriptive measures. Additional measures may be considered for direct install or for rebate in future program years

Free In-Unit DI Measures

- Efficient light bulbs (LEDs and/or CFLs)
- Energy-efficient showerheads, and faucet aerators (kitchen and bath)
- Advanced Power Strips

Prescriptive measures

- Central AC tune-up

The Multifamily program to also offer all cost-effective versions of the following additional¹¹ consistent weatherization approach measures as approved by the APSC:

- Wall insulation
- Ceiling insulation
- Air infiltration
- Duct sealing
- Water heater jackets
- Water heater pipe insulation
- Advanced power strips
- Apartment common area energy assessments

¹¹ DI measures listed are also "Core" Weatherization measures.

Preliminary benefit-cost analysis and data on the Multifamily market indicates that, of these additional "Core" measures, the program would offer ceiling insulation where existing insulation levels are R0-R4, Air Infiltration, and Advanced Power Strips. However, the measure mix could expand or change based upon updated data.

FEDERAL & STATE INCENTIVES

EAI will coordinate with the Arkansas Energy Office, the Arkansas Office of the Department of Community Planning & Development, the local Building Owners and Managers Association (BOMA) chapter, the National Affordable Housing Management Association (NAHMA), amongst others. Leveraging the access and influence of the public agencies and property owner/management associations with these customers will give EAI the opportunity to conduct larger-scale direct installations of EE measures on multifamily properties.

THIRD PARTY FINANCING

EAI will continue to identify and promote off the utility bill third party financing options for owners of multifamily dwellings.

DELIVERY STRATEGY

An implementation contractor will assist the Company with delivery of this program.

Key elements of program delivery include:

1. *Some of the direct installation services will be provided by the EAI prime contractor. Services will also be provided by a limited number of partnering contractors.*
2. *Contractor recruitment.* A limited number partnering contractors are expected to provide full turnkey program delivery services.
3. *Contractor Training:* The program will provide both technical and sales training to contractors.
4. *Energy Audit.* Property owners and managers will receive an initial visit from the program staff that will perform a free basic energy audit of the common area to identify potential for energy savings.
5. *Energy efficiency projects:*
 - a. *Tenant unit DI measure installations* may be combined with the initial site visit or scheduled separately depending on site manager/tenant discussions.
 - b. *Prescriptive projects* will include prescriptive measures not categorized as DI.
6. *Marketing:* Program outreach and marketing will focus on private property owners, including managers and operators of multifamily buildings—this is the community who holds the key to market transformation within a sector that is historically slower, because of split-incentive and income barriers, to adopt efficient technologies.

Although contractors will be the primary delivery vehicle for this program EAI will reach property owners and tenants directly through low-cost communication vehicles including earned media, professional and trade media, invitational events, direct mail, Web sites, and association presentations. Communication materials can be distributed with greater impact in smaller quantities through targeted channels.

7. *QA/QC review:* Incentive applications will be subject to a QA/QC review to ensure all required forms and documentation have been submitted and that incentive calculations are correct. To minimize errors in this process there will be a 100% review on all project documentation and a 10% field inspection of all properties via project verifications described in section 8 below for verification of equipment efficiency rating, proper installation, etc. on the part of the Company.
8. *Project verification:* EAI will perform pre- and post-installation verifications on a statistically significant sample of all common area projects. EAI reserves the right to site-verify installations prior to approval and incentive payment for any project. Over time, as contractors' exhibit consistently high performance, verifications for those contractors can be reduced. Contractors who exhibit poor performance will be re-trained and have 100% of their projects verified for a period of time, and can be removed from the program if poor performance continues.
9. *Incentive payment:* Rebates for prescriptive EE projects will be built into the contractor's quotes – that is, contractors will front the cost of rebates and will invoice EAI on a regular (e.g. bi-monthly) basis to be made whole. This structure is necessary for program participants to overcome first-cost barriers, to simplify the transaction, and minimize the "hassle" factor."

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Energy Solutions for Multi-Family Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 356,000	50.7%
Non-Incentives	\$ 346,000	49.3%
Total Budget	\$ 702,000	100.0%

COST-EFFECTIVENESS

Energy Solutions for Multi-Family Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 2,375,166
	Benefit-cost ratio	3.24
	NPV (average installation)	\$ 79.54
Ratepayer Impact Measure (RIM)	NPV	\$ 62,818
	Benefit-cost ratio	1.03
	Lifecycle revenue impact per kWh	\$ 0.001
	2016 revenue impact per kWh	\$ 0.019
Total Resource Cost Test (TRC)	NPV	\$ 1,189,885
	Benefit-cost ratio	1.91
	Levelized cost per kWh	\$ 0.045
Program Administrator Cost (PAC)	NPV	\$ 1,832,988
	Benefit-cost ratio	3.77
	Levelized cost per kWh	\$ 0.011

SAVINGS TARGETS & PARTICIPATION

Measure Installations	29,860
Annual MW Savings (Net, At Source)	0.7
Annual MWh Savings (Net, At Source)	3,188

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.3. Energy Solutions for Manufactured (Mobile) Homes

PROGRAM DESCRIPTION

This program will target manufactured (mobile) home owners as well as mobile home community managers and owners to address the three principal barriers to energy efficiency in this hard-to-reach sector:

1. *The low income barrier:* According to the U.S. Census Bureau about 80% of people living in manufactured homes are considered “low-income households” with nearly 30% living below the poverty line. Therefore, most mobile home owners cannot afford the upfront costs of energy efficiency improvements.
2. *The educational barrier:* Mobile home owners, community owners, nor community managers fully understand the economic, comfort and other benefits of energy efficiency.
3. *The split incentive barrier:* For those manufactured home communities that are master metered, residents are less likely to implement energy efficiency because they do not pay for electricity.

Program staff for Manufactured Homes will address these market barriers by building relationships with mobile home community owners, managers and residents through community meetings and direct marketing, and by providing free energy efficiency education and direct install measures in homes. As EAI is a member of the Arkansas Weatherization Network, Manufactured homes will also be the delivery mechanism for cost-effective statewide consistent weatherization approach measures. These weatherization measures will be incentivized at full cost coverage and must comply with all other aspects of the statewide delivery approach as approved in Docket No. 13-002 U, Order No. 22 & 23.

TARGET MARKET

This program will target both manufactured home community owners and managers¹² and mobile home owners. In order to maximize program cost-effectiveness, EAI will focus program promotion in geographic areas with the greatest concentration of mobile homes. For the geographic targeting goals,¹³ the program anticipates using 2010 U.S. Census and other data about the concentration of mobile homes by ZIP code. The program will also focus efforts on communities that are not master metered in order to minimize the split incentive barrier.

MARKET SIZE

There are approximately 78,000 manufactured homes in EAI's territory, which represents 13% of EAI's housing stock; according to the U.S. Census Bureau, the concentration of mobile

¹² In many cases community managers also own the property.

¹³ Program contractors will have assigned geographic areas and savings goals.

homes in Arkansas is twice the national average. Based on data available through the Manufactured and Mobile home MLS, there are approximately 250 mobile home communities in Arkansas. Manufactured home communities vary greatly in size, from less than 10 to over 1,000. A majority of communities include between 100-200 units.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

This program is expected to include free direct install (DI) measures and prescriptive measures.

Free In-Unit DI Measures are expected to include, at a minimum

- Energy-efficient showerheads and aerators
- Efficient light bulbs
- Advanced power strips

Prescriptive Measures are expected to include, at a minimum

- Central AC tune-ups
- Duct sealing

The Manufactured Homes program will also offer all cost-effective versions of the following additional consistent weatherization approach measures as approved by the APSC:

- Wall insulation
- Ceiling insulation
- Air infiltration
- Water heater jackets
- Water heater pipe insulation
- Dwelling energy assessments/audits

Preliminary benefit-cost analysis and data on the Manufactured housing market indicates that of these additional "Core" measures, the program will offer air infiltration. The other measures are either not cost-effective or are not technically feasible. However, the measure mix could expand or change based upon updated data.

Incentive Levels

In-unit DI measures will be free to mobile home owners.

AC tune-up and Duct Sealing incentives are expected to be relatively high (as a percentage of measure costs) for this hard-to-reach market.

EAI will not provide incentives that are prohibited within the promotional practice rules.

FEDERAL & STATE INCENTIVES

EAI will coordinate with the Arkansas Energy Office, the Arkansas Office of the Department of Community Planning & Development, the local Building Owners and Managers Association (BOMA) chapter, the National Affordable Housing Management Association (NAHMA), amongst others. Leveraging the access and influence of the public agencies and property owner/management associations with these customers will give EAI the opportunity to conduct larger-scale direct installations of EE measures on manufactured homes.

THIRD PARTY FINANCING

EAI will continue to identify and promote off the utility bill third party financing options for owners of manufactured homes.

DELIVERY STRATEGY

An implementation contractor will assist the Company with delivery of this program.

Key elements of program delivery include:

1. *Some of the direct installation services will be provided by the EAI prime contractor. Services will also be provided by a limited number of partnering contractors.*
2. *Contractor recruitment.* EAI will recruit and train a limited number of partnering contractors to provide full turnkey program delivery services. These contractors will, in effect, act as “general” contractors and will comprise an EAI system-based infrastructure to deliver program services.

Note that “general” contractors may employ local labor/specialty contractors to carry-out DI and prescriptive projects.

3. *Contractor Training:* The program staff will provide both technical and sales training to contractors.
 - a. *Technical training* will focus on key aspects of the technical knowledge and skills needed by contractor personnel to provide customers with the specified energy-efficient products and services.
 - b. *Sales training* will help contractors increase their understanding of the benefits associated with up-selling mobile home owners and community owners/managers to energy efficient technologies.
4. *Energy efficiency projects:*
 - a. *Manufactured home measure direct installations* may be combined with the initial site visit or scheduled separately depending on site manager and homeowner discussions.
 - b. *Prescriptive measure installations* may be installed during the initial site visit or may require an estimate from the participating contractor, followed by a second visit for measure installation.

5. *Marketing:* Program outreach and marketing will focus on community owners/managers; however, the program will also market directly to home owners. Although contractors will be the primary delivery vehicle for this program EAI will reach community managers and home owners directly through low-cost communication vehicles including earned media, professional and trade media, invitational events (e.g., manufactured home community meetings), direct mail, and the program Web site.
6. *Energy Efficiency Education:* Residents will be offered energy efficiency education on “low cost, no cost” ways to save energy.
7. *QA/QC review:* Incentive applications and contractor invoices will be subject to a QA/QC review to ensure all required forms and documentation have been submitted and that incentive calculations are correct.
8. *Project verification:* EAI will perform post-installation verifications on a statistically significant sample of all projects. EAI reserves the right to site-verify installations prior to approval and incentive (or contractor invoice) payment for any project. Over time, as contractors’ exhibit consistently high performance, verifications for those contractors can be reduced. Contractors that exhibit poor performance will be re-trained and have 100% of their projects verified for a period of time, and can be removed from the program if poor performance continues.
9. *Incentive payment:* Most measures are installed free of charge through this program. Contractors will invoice EAI on a regular (e.g. bi-monthly) basis for equipment and labor costs in order to be made whole. This structure is necessary for program participants to overcome first-cost barriers, to simplify the transaction, and minimize the “hassle” factor.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

Other data will be collected as required.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Energy Solutions for Manufactured Homes Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 288,000	45.4%
Non-Incentives	\$ 347,000	54.6%
Total Budget	\$ 635,000	100.0%

COST-EFFECTIVENESS

Energy Solutions for Manufactured Homes Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 1,611,721
	Benefit-cost ratio	4.92
	NPV (average installation)	\$ 104.89
Ratepayer Impact Measure (RIM)	NPV	\$ 266,344
	Benefit-cost ratio	1.17
	Lifecycle revenue impact per kWh	\$ 0.009
	2016 revenue impact per kWh	\$ 0.124
Total Resource Cost Test (TRC)	NPV	\$ 1,142,053
	Benefit-cost ratio	2.58
	Levelized cost per kWh	\$ 0.044
Program Administrator Cost (PAC)	NPV	\$ 1,263,738
	Benefit-cost ratio	3.11
	Levelized cost per kWh	\$ 0.016

SAVINGS TARGETS & PARTICIPATION

Measure Installations	15,366
Annual MW Savings (Net, At Source)	0.6
Annual MWh Savings (Net, At Source)	1,834

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.4. CoolSaverSM - Residential and Commercial AC Tune-up Program

PROGRAM DESCRIPTION

The program is designed to minimize the following market barriers to efficient cooling in the residential and commercial marketplaces:

- Lack of awareness of energy and cost savings potential for existing air conditioners
- Lack of easy access to qualified vendors and installers of advanced tune-up services
- Lack of awareness of services that result in properly-tuned air conditioning systems
- Lack of awareness of differences between levels and completeness of tune-up and maintenance services

The Entergy Arkansas CoolSaverSM Program will provide residential and commercial customers with a comprehensive set of options to lower the energy consumption and cost associated with keeping their homes and businesses cool and comfortable in the summer.

Customers with functioning ACs can improve the efficiency of their units with the help of a comprehensive AC Tune-up. Research shows that most central AC systems have tune-up opportunities, resulting from either improper refrigerant charge and/or incorrect airflow rates¹⁴. These inefficiencies can lead to increased energy usage and accelerated equipment degradation. The program will build capacity within the territory's HVAC contractor network to address these issues and provide value-added services to its customers. These services are eligible to be incentivized because they go above and beyond the standard industry practices and offerings in the marketplace. Marketing efforts will promote the value of these services to customers and the energy-saving and economic benefits.

The AC Tune-up offerings will be cross-promoted with the other programs, both residential and commercial, and, will help create a transformed AC market in Arkansas by:

- Targeting consumers at the decision point of maintaining their equipment,
- Targeting contractors to integrate the program tune-up into their business plan,
- Rewarding best practice, including cleaning indoor and outdoor components, measuring and adjusting airflow, and refrigerant charge adjustment using the most accurate tools and methods.
- Minimizing lost opportunities by cross-promoting comprehensive and efficient air conditioner maintenance and tuning through the other programs offered by the utility to its residential and commercial customer base.

TARGET MARKET

Residential and commercial customers with functioning central air conditioners.

¹⁴ Consortium for Energy Efficiency, *Specification of Energy-Efficient Installation and Maintenance for Residential HVAC Systems*, 2000

AC Tune-Up

All residential and commercial customers with working central air conditioning or heat pumps, including larger, commercial applications are the target market for this program.

MARKET SIZE

There are approximately 370,000 residential customers in EAI's territory with central air conditioning or heat pumps. There are approximately 85,000 small business customers in the Company's territory

ELIGIBLE MEASURES & INCENTIVE STRATEGY

AC Tune-Ups

EAI anticipates paying HVAC contractors an incentive amount per tune-up that is adequate to motivate contractors and customers to perform the comprehensive steps required and which aligns with the level of verified savings achieved. Final incentive levels may change pending discussions with the implementation contractor, changes in service prices and availability, or other factors. Over time, these incentives may also be adjusted based upon customer and market response, and verified savings.

Two new measures added to this program include pre and post tune-up measures. The pre tune-up measure takes the AC tune up and allows for everything a high efficiency tune up requires other than the actual refrigerant charge and test out. This allows the trade allies to retain staff throughout the winter and gives them a business saving revenue stream. It also allows more tune ups to be completed when limited by cool weather. The post inspection completes the remaining tasks to complete the tune up.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An implementation contractor will assist EAI with the delivery of the program.

Key elements of the delivery strategy include:

1. *HVAC Contractor recruitment and training*: The implementation contractor will recruit HVAC contractors and organize required trainings, including AC Tune-up best practices, tools and required steps, and training in program processes and procedures. The implementer will ensure that all participating contractors are legally licensed in the state and are adequately insured to protect themselves and Entergy Arkansas in the event of damages or injury. The implementer will ensure that individual participating technicians have the legally required licensing or registration under their employer's license, as well

as EPA refrigerant handling certification.

2. *Marketing*: This is a contractor-driven initiative - HVAC contractors will recruit customers through direct marketing efforts. However, EAI's implementer will also recruit customers through cross-promotion with other programs, as well as general awareness activities. Program information will also be posted on EAI's Web site, and provided through the call center.
3. *Project implementation*: Trained and Qualified participating HVAC contractors will provide tune-up and installation services according to program protocols.
4. *Incentive application & payment*: HVAC contractors will submit all project paperwork to the implementation contractor for QA/QC review. Contractors will provide the incentive as an upfront discount off their services to the customer. The contractor will be reimbursed for the discount provided to the customer following application review and approval. Contractors with Quality Assurance failures, non-Program compliant work, or customer satisfaction issues may have their incentive payments held until corrections have been completed and verified.
5. *Project verification*: All technical air conditioning performance data submitted by contractors and utilized to calculate savings will be verified by the implementer as legitimate and accurate. Verification of customer approval of the Program services and any expenditures must be documented by customer signature and date. Data transferred from the contractor to the implementer will be transferred via a secure path and encrypted to EAI's standards. Implementer will take reasonable steps to ensure that incentives are not paid for projects submitted on previously-participating systems before the measure life expires. EAI will perform post-installation verifications prior to payment on a target of a 10% random sample of all projects submitted PER TECHNICIAN. EAI reserves the right to site-verify installations prior to approval and incentive payment for any project. Over time, as technicians exhibit consistently high performance (100% "Pass" rate), verifications for those technicians may be reduced. Technicians who exhibit poor performance will be re-trained and have 100% of their projects verified for a period of time, and can be removed from the program if poor performance continues.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Efficient Cooling Solutions Budget Summary		2016	
Type	Total Budget	% of Budget	
Incentives	\$ 1,594,000	55.2%	
Non-Incentives	\$ 1,295,000	44.8%	
Total Budget	\$ 2,889,000	100.0%	

COST-EFFECTIVENESS

Efficient Cooling Solutions Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 6,689,456
	Benefit-cost ratio	4.66
	NPV (average installation)	\$ 842.61
Ratepayer Impact Measure (RIM)	NPV	\$ 3,055,152
	Benefit-cost ratio	1.47
	Lifecycle revenue impact per kWh	\$ 0.024
	2016 revenue impact per kWh	\$ 0.118
Total Resource Cost Test (TRC)	NPV	\$ 6,611,268
	Benefit-cost ratio	3.20
	Levelized cost per kWh	\$ 0.040
Program Administrator Cost (PAC)	NPV	\$ 6,888,033
	Benefit-cost ratio	3.53
	Levelized cost per kWh	\$ 0.022

SAVINGS TARGETS & PARTICIPATION

Measure Installations	7,939
Annual MW Savings (Net, At Source)	9.5
Annual MWh Savings (Net, At Source)	17,711

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.5. Residential Lighting and Appliances

PROGRAM DESCRIPTION

The objective of the Lighting and Appliances initiative is to increase awareness and sales of efficient lighting and appliances to EAI's residential population. The program will offer customers the opportunity to purchase, largely through retail locations, a variety of discounted products that are ENERGY STAR qualified or better.

The Residential Lighting and Appliances Program is designed to minimize the following market barriers to EE implementation for EAI's residential customers:

- Lack of information about energy-saving lighting products and appliances
- Lack of easy access to ENERGY STAR qualified products
- Higher first-cost for ENERGY STAR qualified products
- Consumer mis-information about the quality of efficient products

The two main program activities include (1) retailer recruitment and merchandising, and 2) administration of the incentive process (including program tracking). The implementation contractor will work to expand the retail network, as well as increase the number of available products. Recruitment will also include the development of a marketing strategy that leverages the ENERGY STAR brand, development of point-of-purchase (POP) materials, and ongoing retailer and consumer education.

The incentive process will include both downstream and upstream approaches. EAI will continue to negotiate with retailers and manufacturers to buy-down the cost of program-qualified products, and to offer consumers the ability to claim rebates following the purchase of certain other program-qualified products.

TARGET MARKET

The Residential Lighting and Appliances Program will be available to all qualified residential customers.

MARKET SIZE

There are approximately 580,000 residential customers in EAI's service territory.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

The program currently utilizes a markdown/buy down incentive process and distribution of products directly to customers, as well as rebates to ensure all retailers and customers are able to participate.

- **Markdowns / Buy downs** are provided directly to a manufacturer or retail partner with the goal of lowering first costs of products and passing the savings on to the customer. The customer is able to see the actual discount offered compared to everyday price on the shelf.
The selected implementation contractor will solicit participation by retailers in its service territory. A solicitation process allows EAI to partner with industry to support the most important objectives of the program, the APSC's goals, and to continuously specify key

objectives throughout the life of the Program.

- **Distribution of products to customers** for no charge at events where face-to-face interaction can take place.
- **Rebates** for appliances will be paid directly to customers who apply and are qualified to receive rebates.

Anticipated Measures

Measures eligible for rebates are likely to include, but will not necessarily be limited to:

Lighting

- CFLs
- LEDs
- LED fixtures

Appliances

- ENERGY STAR Clothes Washers
- ENERGY STAR Heat Pump Water Heaters
- ENERGY STAR Room Air Purifiers

Home Electronics

- Advanced power strips

EAI anticipates that this program will decrease the volume of rebates for CFLs concurrent with the federal phase-out of general service incandescent lighting. The Energy Independence and Security Act of 2007 (EISA) established minimum efficiency requirements for general service lamps effective in 2012, which will essentially phase out general-service incandescent lighting for most applications.

Note that final incentive levels and measure mix may change pending discussions with the implementation contractor, with retailers, changes in product prices and availability, or other factors. Over time, incentives may be adjusted based upon customer or retailer response.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An implementation contractor will assist EAI with program delivery.

Key elements of the Residential Lighting and Appliances Program implementation include:

1. *Retailer and supplier recruitment:* The implementation contractor will solicit participation by retailers, including those currently participating in the Program. The implementation contractor will finalize product specifications and performance criteria, product stocking based on anticipated sales volume, and data sharing requirements.
2. *Training requirements:* The contractor will provide training to retailers on the ENERGY STAR product line, and on program processes. On-going training and merchandising visits by field staff will create a foundation for the program to participate in manufacturer and retailer seasonal promotions, taking advantage of ENERGY STAR and other national campaigns while ensuring continuous education for the customer.
3. *Marketing plan development and implementation:* EAI will work with the implementation contractor to develop a marketing plan. Marketing will focus on two key tactics:
 - Leverage broader marketing campaigns by providing engaging in-store collateral materials to inform and educate potential buyers
 - Conduct ongoing promotions to drive traffic to EAI's program web site. The web site will contain information about specific appliances and lighting products and promotions, as well as a link to the utility's e-commerce site.
4. *Incentive process:* EAI will work with the implementation contractor to provide a turn key incentive payment plan. This needs to involve a strategy for advancing funds to the implementation contractor and ultimately to the participating retailers.
5. *QA/QC review:* Applications for payment from manufacturers will be subject to a QA/QC review to ensure all required information has been submitted and that incentive calculations are correct. To minimize errors there will be a 100% review of all payment requests and sales data.
6. *Project verification:* Because this program does not track individual participants in markdown/buy down promotions, the implementation contractor will not verify installation of the products rebated by the program via this delivery mechanism. Tracking products and reporting accomplishments will be completed through agreements reached with retailers and manufacturers. All participating retailers will be audited on a regular basis to ensure compliance with program processes. For participants in appliance promotions where individual participant information is known, a statistically significant sample of participants will be audited to verify installation of the products rebated by the program.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Lighting & Appliances Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 3,146,000	70.4%
Non-Incentives	\$ 1,321,000	29.6%
Total Budget	\$ 4,467,000	100.0%

COST-EFFECTIVENESS

Lighting & Appliances Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 35,428,412
	Benefit-cost ratio	7.86
	NPV (average installation)	\$ 16.89
Ratepayer Impact Measure (RIM)	NPV	\$ (2,358,142)
	Benefit-cost ratio	0.87
	Lifecycle revenue impact per kWh	\$ (0.008)
	2016 revenue impact per kWh	\$ (0.079)
Total Resource Cost Test (TRC)	NPV	\$ 10,345,277
	Benefit-cost ratio	2.87
	Levelized cost per kWh	\$ 0.022
Program Administrator Cost (PAC)	NPV	\$ 11,648,953
	Benefit-cost ratio	3.76
	Levelized cost per kWh	\$ 0.009

SAVINGS TARGETS & PARTICIPATION

Measure Installations	2,097,390
Annual MW Savings (Net, At Source)	3.9
Annual MWh Savings (Net, At Source)	34,369

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.6. Residential Benchmarking Pilot

PROGRAM DESCRIPTION

The Residential Benchmarking Pilot is an innovative program that will provide energy consumption information to residential customers in a paper report format and/or through the internet and/or other communication medium. At a minimum the information provided by the program will inform customers how their energy has changed over time, and suggest actions customers can take to reduce energy use.

This pilot program concept is designed to address the following market barriers to EE:

- Lack of customer awareness of energy and demand consumption, in a certain time period and over multiple periods of time
- Lack of customer awareness of how their energy consumption compares to their peer groups
- Lack of customer understanding of how to reduce their energy consumption

As a Pilot, EAI proposes to undertake this program to answer the following research questions:

- What are the verifiable energy savings and demand reductions that this program achieves for EAI's residential customers?
- How do these energy savings persist over time, with and without the continued delivery of the energy benchmarking reports?
- What are the free-ridership and spill-over effects of this program?
- Could this program be utilized as a cost effective program for all of EAI's customers in a future program years?

In addition to providing energy savings, this program provides an excellent way for EAI to communicate its EE and conservation commitment to its customers on an ongoing basis. If the performance of the 2016 program period of implementation is cost-effective and can be carried forward as a cost effective program, then EAI expects to expand this program to additional customers in future program years.

TARGET MARKET

The target market for this pilot is residential customers.

MARKET SIZE

There are approximately 580,000 residential customers in EAI's service territory.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Customers selected as "participants" will receive a regular Home Energy Report in paper and/or electronic format. Participants will have the right to opt-out of the program. In addition to providing analysis on individual customer energy use, the reports, at a minimum, must also promote incentives for other EAI programs. The Company will provide customer support through phones and online tools.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable.

DELIVERY STRATEGY

An EAI implementation contractor will fully administer the Benchmarking pilot program. The key elements of the implementation strategy are expected to include:

1. *Selection of the random sample* of participants and a customer control group of non-participants.
2. *Creation of the peer groups for customer comparison.* This is a highly technical process that will merge multiple databases of information, and will be handled entirely by the implementation contractor.
3. *Development of the reports including any online components.* EAI will assist in the design and look-and-feel of these components.
4. *Delivery of reports.* The implementation contractor will be responsible for printing and mailing of paper reports.
5. *Monthly performance reports to EAI:* The implementation contractor will report at least monthly to the Company with the results-to-date, so that any necessary changes can be made to the program delivery.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Residential Benchmarking Pilot Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 180,000	26.2%
Non-Incentives	\$ 506,000	73.8%
Total Budget	\$ 686,000	100.0%

COST-EFFECTIVENESS

Residential Benchmarking Pilot Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 693,752
	Benefit-cost ratio	N/A
	NPV (average installation)	\$ 6.94
Ratepayer Impact Measure (RIM)	NPV	\$ (23,890)
	Benefit-cost ratio	0.98
	Lifecycle revenue impact per kWh	\$ (0.004)
	2016 revenue impact per kWh	\$ (0.004)
Total Resource Cost Test (TRC)	NPV	\$ 469,310
	Benefit-cost ratio	1.98
	Levelized cost per kWh	\$ 0.073
Program Administrator Cost (PAC)	NPV	\$ 299,403
	Benefit-cost ratio	1.46
	Levelized cost per kWh	\$ 0.029

SAVINGS TARGETS & PARTICIPATION

Participants	100,000
Annual MW Savings (Net, At Source)	5.0
Annual MWh Savings (Net, At Source)	6,944

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.7. Residential Direct Load Control

PROGRAM DESCRIPTION

This opt-in load control program also known as the “Summer Advantage” program allows the Company to cycle off a participant’s home central air conditioning condenser during the summer peak period. The summer peak period is defined weekdays from 1p.m. to 7 p.m. starting on June 1st and ending on September 30th.¹⁵ Participant benefits include lower rates due to lessening the need for expensive generating units during peak summer months and better regional air quality since peaking units emit higher levels of criteria pollutants relative to other units.

The program is delivered by a turn-key implementation contractor utilizing radio technology to install and operate a Digital Control Unit (DCU) directly on the home central air conditioning condenser. The inside fan is allowed to operate normally to circulate cool air while the outside unit is cycled off. EAI proposes to continue working towards integrating smart thermostats as a secondary control technology. In 2016 homes that install smart thermostats which are equipped with Summer Advantage-compatible wireless control features will be available to participate in the program.

Participant incentives are based on the participant’s choice of 50% cycling or 75% cycling. The participant receives an installation incentive based on participation rate and annually the participant will receive a loyalty incentive equal to the installation bonus.

TARGET MARKET

Residential participants with functioning central air conditioners will be eligible. Rental properties will be eligible, but only if the property owner gives their approval to install the control equipment.

MARKET SIZE

There are approximately 370,000 residential participants with central air conditioning.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Participants have a choice between 50% cycling and 75% cycling. Participant Incentives are based on the participant’s choice of 50% cycling or 75% cycling. All Summer Advantage participants are eligible to receive two incentive payments, an installation incentive and an annual incentive. Upon successful installation of the DCU, the participant receives an installation incentive based on participation rate. Participants at the 50% participation rate receive \$25 and those at the 75% participation rate receive \$40. An annual incentive is offered to Summer Advantage participants as recognition for their participation in the program throughout the year. The annual incentive is based on the participation rate and the number of months during the peak period in which the participant participates. Participants at the 50% participation rate are eligible to receive a total of \$25 annual incentive and those at the 75%

¹⁵ Except for Company recognized holidays or the nearest weekday if the holiday is on a weekend.

participation rate are eligible to receive an annual incentive of \$40. Participants who elect to be removed from the program during the peak season will receive a prorated annual incentive. Participants who are selected for the Measurement and Verification program will receive an additional installation incentive and annual incentive.

FEDERAL & STATE INCENTIVES

Not Applicable.

THIRD PARTY FINANCING

Not Applicable.

DELIVERY STRATEGY

An implementation contractor has been selected by the Company for turn-key program implementation.

Key elements of program delivery include:

1. *Participant recruitment* through including marketing channels such as direct mail, outbound calling, the program Web site, and other tactics.
2. *Participant intake and installation scheduling services*
3. *Pre-screening* of interested participants
4. *DCU installation services*
5. Integration of compatible thermostats for reporting and curtailing.
6. *Participant support and complaint resolution*
7. *Maintenance and repair* or replacement of defective DCUs
8. *Updated cycling forecasts* on program Web site and communication of cycling events via phone, email or other media
9. Administration of cycling events
10. Processing of Annual incentive payment
11. "*Scram*" tests in the absence of cycling events to ensure system is operational
12. *Monitoring of actual load impacts*, and development of a demand impact adjustment factor (prior to evaluation)
13. *QA/QC*. Quality control audits will be performed by the contractor on a statistically significant sample of each installer's sites.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Residential Direct Load Control Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 776,000	17.9%
Non-Incentives	\$ 3,556,000	82.1%
Total Budget	\$ 4,332,000	100.0%

COST-EFFECTIVENESS

Residential Direct Load Control Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 8,053,993
	Benefit-cost ratio	N/A
	NPV (average installation)	N/A
Ratepayer Impact Measure (RIM)	NPV	\$ 41,347,358
	Benefit-cost ratio	4.36
	Lifecycle revenue impact per kWh	N/A
	2016 revenue impact per kWh	N/A
Total Resource Cost Test (TRC)	NPV	\$ 48,913,118
	Benefit-cost ratio	11.36
	Levelized cost per kWh	N/A
Program Administrator Cost (PAC)	NPV	\$ 41,347,358
	Benefit-cost ratio	4.36
	Levelized cost per kWh	N/A

SAVINGS TARGETS & PARTICIPATION

Participants	23,178
Annual MW Savings (Net, At Source)	35.0
Annual MWh Savings (Net, At Source)	-

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.1.8. Energy Efficiency Arkansas

The purpose of the EEA Program is to cost-effectively deliver relevant, consistent, and fuel neutral information and training that causes people to consume less energy through EE and conservation measures.

EAI is planning to continue participation in EEA and has included EEA in the budget for this Plan. EAI directs readers to Docket No. 08-066-RP for more information on the EEA Program. EAI has assumed a funding level of \$327,000 for the 2016 program year for program planning purposes and will adjust final budgets and funding level based upon final EEA approval.

3.2. Business Solutions

EAI's proposed Business Solutions programs include attractive value propositions and considerable energy saving opportunities for every type of non-residential ratepayer. Business Solutions is comprised of six programs, which are described below.

3.2.1. C&I Solutions Program

PROGRAM DESCRIPTION

The primary objective of the Large Commercial and Industrial Solutions Program (Large C&I) is to provide a solution for nonresidential customers interested in purchasing energy efficient technologies that can produce verifiable savings either through a calculated (prescriptive) or a measured and verified (custom) approach. Participants can receive incentives for a wide range of measures, such as lighting and controls, variable speed drives, HVAC equipment, refrigeration equipment, office equipment, food service equipment, air compressor systems, and industrial process upgrades. Incentives and savings for prescriptive measures will be based primarily on measures in the current Arkansas TRM.

The Large C&I Solutions program is designed to reduce or bypass market barriers such as:

- Lack of EE information and awareness of energy and non-energy benefits;
- The perception that energy efficient technologies have high "first costs";
- Lack of customer understanding about measure payback;
- Lack of customer awareness of energy efficient technologies;
- Lack of easy access to qualified vendors and installers;
- Absence of tools to quantify savings;
- Lack of access to capital; and
- Lack of project success that could be overcome with alternative funding (incentive split between owners and tenants in leased spaces, assignment of incentives to installing Trade Allies, etc.)

The Large C&I Solutions program is designed to generate significant energy savings, as well as a longer-term market penetration by nurturing delivery channels, such as design professionals, distributors, installation contractors, and Energy Service Companies ("ESCO"s).

TARGET MARKET

The Large C&I Solutions program will be available to all C&I customers with a connected load of over 100 kW at either one site or at multiple sites owned by the same company. Additionally, the program will be available to all commercial new construction customers.

MARKET SIZE

There are approximately 108,000 C&I accounts in EAI's territory (86,000 commercial and 22,000 industrial).

ELIGIBLE MEASURES & INCENTIVE STRATEGY

For Prescriptive measures, incentives will be paid for cost effective, commercial measures listed in the Arkansas TRM. Examples of these are included below:

HVAC

- Air-air heat pump system replacement with high efficiency systems
- Electronically commutated motors
- Unitary HVAC/Split system replacement with high efficiency systems
- Air Cooled and Water Cooled chiller replacement with high efficiency systems

Lighting

- Compact fluorescent lighting
- Efficient Linear Lighting
- LED Exit Signs
- LED lighting
- Induction lighting
- Lighting controls for areas with highly intermittent occupancy

Water conservation measures

- Low flow aerators
- Low flow pre-rinse spray valves

Refrigeration

- Replacement of motors with EC motors
- Door heater controls for refrigerated cases
- Replacement of damaged refrigeration gaskets
- Installation of strip curtains on refrigerated and freezer spaces

Other Measures

- Vending machine occupancy controls
- Personal Computer power management

Custom measures that must be measured to show electrical savings will be eligible, provided it is cost-effective.¹⁶ Examples of efficient technology types that may be incorporated in a custom project include:

- Process chillers;
- Compressed Air;
- Data Center Efficiency;
- HVAC system improvements (economizers, building automation);
- Custom Lighting;
- Process upgrades;
- Variable speed drives.

Incentives will be paid to program participants pending project completion and verification. The incentive levels will vary by measure, and final incentive levels will be determined in the final program implementation planning period. For planning purposes, most incentives were targeted to achieve 50% of incremental costs.

¹⁶ Under the Total Resource Cost test.

Paid-incentive totals will be initially capped by Tax ID Group so that all customers groups have an equal chance to participate. EAI reserves the right to change cap levels based on expected or demonstrated participation and savings rates among Tax ID Groups in order to maximize program cost-effectiveness. To maximize participation, incentives will be subject to a per customer cap; for planning purposes this is assumed to be 50% of program budget. All incentive levels and caps will be determined during the final program design.

EAI will not provide incentives that are prohibited within the promotional practice rules.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An EAI implementation contractor will deliver the program key elements of the Large C&I Solutions Program. Implementation strategy shall include, but is not limited to:

1. *Trade ally recruitment and training:* Trade allies (installation contractors) are a key delivery mechanism for this program as they promote participation and available incentives to their customers. Trade allies will be recruited to participate in training sessions which will be designed to inform them about program incentives, participation processes, and requirements. Trade allies actively participating in the program and other EAI program offerings will receive regular communications about program activities and changes to ensure they are informed and engaged participants.
2. *Marketing.* Customers will be recruited through participating contractors, inbound calls, specific targeted outbound calls, professional organizations, and EAI account representative referrals. To ensure that nonresidential customers perceive EAI's EE programs as a seamless set of offerings, cross-referrals from other programs will also be provided where appropriate.
3. *Technical assistance:* The program implementation contractor will provide program participants with requested facility assessments, upgrade recommendations, calculations, and measurement of savings. Program staff will also provide guidance on documentation and assistance regarding program offerings and participation processes/requirements. These efforts will be provided to customers and trade allies to help minimize confusion and overcome barriers to participation.
4. *Application submittal:* Customers will submit project applications as prepared by program implementation staff prior to installation of qualifying EE measures. Following installation, the participant and/or program trade ally will submit required documentation (invoicing, revisions to project scope, and product data) to program implementation staff.

5. *QA/QC review:* Incentive applications will be subject to a QA/QC review to ensure all required forms and documentation have been submitted and that incentive calculations are correct. To minimize errors in this process there will be a desk review of 100% of submitted applications to verify that application information, calculations, invoices, and equipment information are in agreement with the scope of work received for the project. Discrepancies will be address by requesting supplemental information from the participant or the installing contractor. EAI reserves the right to withhold incentive payment on any project where adequate documentation has not yet been received. Field verification will be performed on a sample of projects as listed in Project Verification, but is not intended to be a remediation to poor documentation provided by participants or installing contractors.
6. *Project verification:* EAI will perform pre- and post-installation verifications on a statistically significant sample of projects (expected to be between 15% and 25% of projects). These inspections will be sampled from all projects types, and inspections will not be targeted to achieve both a pre and post inspection on all sampled projects. However, inspections will be weighted toward larger, higher complexity projects to maximize the quality control effort on projects with high risk to the programs. EAI reserves the right to site-verify installations prior to approval and incentive payment for any project.¹⁷
7. *Incentive payment:* To minimize barriers to participation, the program will seek to expedite incentive payments to participating C&I customers. The implementer is responsible for the processing of all incentive payments to customers.
8. *Communication support:* Implementation contractor will provide communication support to the utility, program participants, and trade allies as needed.
9. *Reporting to EAI:* All projects will be uploaded for verification in EAI's database for approval.
10. *Auditing and evaluation:* All projects are subject to auditing and/or evaluation requirements as set by EAI and/or the Arkansas Public Service Commission (APSC). The implementer is responsible for responding to all questions and data requests sent through the utility, which can include documentation, savings calculations, and implementation processes.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

¹⁷ Note pre and post inspections are performed on 100% of Large C&I projects.

ESTIMATED BUDGET

C&I Solutions Program Budget Summary		2016	
Type	Total Budget	% of Budget	
Incentives	\$ 19,094,000	74.4%	
Non-Incentives	\$ 6,562,000	25.6%	
Total Budget	\$ 25,656,000	100.0%	

COST-EFFECTIVENESS

C&I Solutions Program Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 58,280,633
	Benefit-cost ratio	2.89
	NPV (average installation)	\$ 272.46
Ratepayer Impact Measure (RIM)	NPV	\$ 16,202,836
	Benefit-cost ratio	1.28
	Lifecycle revenue impact per kWh	\$ 0.008
	2016 revenue impact per kWh	\$ 0.105
Total Resource Cost Test (TRC)	NPV	\$ 39,157,310
	Benefit-cost ratio	2.11
	Levelized cost per kWh	\$ 0.034
Program Administrator Cost (PAC)	NPV	\$ 50,096,951
	Benefit-cost ratio	3.07
	Levelized cost per kWh	\$ 0.010

SAVINGS TARGETS & PARTICIPATION

Measure Installations	213,908
Annual MW Savings (Net, At Source)	16.5
Annual MWh Savings (Net, At Source)	120,511

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.2.2. Commercial Midstream Lighting

PROGRAM DESCRIPTION

The program is designed to provide fast, easy energy efficiency solutions for non-residential customers at the point-of-sale. Initially the program is likely to focus on a limited number of lighting technologies, including those that involve simple lamp-for-lamp and fixture replacements in replace-on-burnout situations. Such measures may include LEDs and efficient linear florescent lamps. However, the program could grow to include a wider variety of measures.

Two advantages of this program design are that it can ramp-up quickly, and that there is no application process for the customer. Instead, the price of the measure is reduced at the point of sale. Cooperation with distributors and opening clear communication channels is the key strategy for promoting measures incentivized through midstream channels.

TARGET MARKET

All C&I customers are eligible for this program including small business, large C&I and CitySmartSM program markets.

MARKET SIZE

There are approximately 90,000 non-residential accounts in EAI's service territory

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Initially, measures are expected to include LED lamps, efficient linear florescent lamps, and a limited number of fixtures, although the list of qualifying measures could be expanded as distributor capabilities ramp up.

The incentive strategy is to "buy-down" the cost of the efficient units at the distributor level so that the discount is built into the cost of efficient units at the point-of-sale. In addition to simplifying the transaction, this strategy often necessitates lower incentives than for comparable measures in prescriptive programs.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An implementation contractor selected by EAI will administer the program.

Key elements of EAI's implementation strategy include:

1. Ensuring that this program complements - and does not compete with - other EAI program offerings to EAI C&I customers.
2. Mid-stream delivery, i.e., providing incentives to distributors to lower the cost of qualified products at the point-of-sale.
3. Working with lighting distributors and manufacturers to develop a plan for selecting the products that will be eligible for incentives.
4. Development of a marketing/customer acquisition strategy including protocols for customer eligibility verification.
5. Development of a QA/QC process.
6. Development of a tracking database.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

C&I Midstream Budget Summary	2016	
	Total Budget	% of Budget
Type		
Incentives	\$ 583,000	59.7%
Non-Incentives	\$ 394,000	40.3%
Total Budget	\$ 977,000	100.0%

EAI's Comprehensive Portfolio

COST-EFFECTIVENESS

C&I Midstream Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 5,591,129
	Benefit-cost ratio	6.81
	NPV (average installation)	\$ 70.38
Ratepayer Impact Measure (RIM)	NPV	\$ 3,578,643
	Benefit-cost ratio	1.88
	Lifecycle revenue impact per kWh	\$ 0.014
	2016 revenue impact per kWh	\$ 0.133
Total Resource Cost Test (TRC)	NPV	\$ 6,343,061
	Benefit-cost ratio	5.80
	Levelized cost per kWh	\$ 0.013
Program Administrator Cost (PAC)	NPV	\$ 6,742,933
	Benefit-cost ratio	8.31
	Levelized cost per kWh	\$ 0.006

SAVINGS TARGETS & PARTICIPATION

Measure Installations	79,440
Annual MW Savings (Net, At Source)	2.79
Annual MWh Savings (Net, At Source)	14,343

3.2.3. Small Business Program

PROGRAM DESCRIPTION

EAI's Small Business program will provide small businesses and other qualified non-residential customers the opportunity to achieve electricity savings through the use of the program. The program will help small business customers analyze facility energy use and identify energy efficiency (EE) improvement projects. Program participants will be consulted as to the available offerings through the program as well as financial incentives for eligible efficiency measures that are installed in their facilities using trade allies.

This initiative is designed to reduce or bypass market barriers such as:

1. Small business owners without technical expertise or time to devote to EE improvements. Most of these businesses do not necessarily have adequate time or resources to focus on EE improvements.
2. Most small businesses have limited access to investment capital. This means that business owners may not be able to front the money for the efficiency upgrade without immediate assistance from the program.

TARGET MARKET

Eligibility for this program will be limited to Small Business customer with less than 100 kW of peak demand.

MARKET SIZE

There are approximately 80,000 Business accounts in EAI's territory with 100 kW or less of peak demand.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

The Small Business program offers direct install (DI) and prescriptive measures as listed below:

Direct Install Measures

- Low-flow faucet aerators
- Pre-rinse spray valves
- Vending machine controls
- Compact fluorescent lamps (CFLs)
- Low-flow showerheads
- PCPM
- Refrigeration Gaskets and strip curtains

Prescriptive Measures

- High efficiency lighting
- Lighting controls
- Refrigeration

- High efficiency HVAC
- Duct sealing (converted residences only)
- Ceiling insulation (converted residences only)

Incentives for prescriptive measures will be paid to program participants or trade allies pending project completion and verification by the program. The incentive levels will vary by measure, and final incentive levels and incentive capping will be determined in the final program implementation planning period

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An EAI implementation contractor will administer this program. Key elements of the implementation strategy include:

1. *Trade Ally recruitment:* The implementation contractor will recruit contractors to provide program delivery services.
2. *Trade Ally Training:* The program will provide both technical and sales training to contractors.
 - a. Technical training will focus on key aspects of the technical knowledge and skills needed by trade ally personnel to provide customers with the specified energy-efficient products and services.
 - b. Sales training will help trade allies increase their understanding of the benefits associated with up-selling customers to energy efficient technologies.
3. *Marketing:* Specific tactics to promote this program are likely to include:
 - a. Direct mail postcards
 - b. Online Marketing
 - c. Small Business Events and Direct Outreach/Grassroots Marketing
4. *QA/QC review:* Incentive applications will be subject to a QA/QC review to ensure all required forms and documentation have been submitted and that incentive calculations are correct. To minimize errors in this process there will be a desk review of 100% of submitted applications to verify that application information, calculations, invoices, and equipment information are in agreement with the scope of work received for the project. Discrepancies will be address by requesting supplemental information from the participant or the installing contractor. EAI reserves the right to withhold incentive payment on any project where adequate documentation has not yet been received. Field verification will be performed on a sample of projects as listed in Project Verification, but is not intended to be a remediation to poor documentation provided by

participants or installing contractors.¹⁸

5. *Project verification:* EAI will perform pre- and post-installation verifications on a statistically significant sample of projects (expected to be between 15% and 25% of projects). These inspections will be sampled from all projects types, and inspections will not be targeted to achieve both a pre and post inspection on all sampled projects. However, inspections will be weighted toward larger, higher complexity projects to maximize the quality control effort on projects with high risk to the programs. EAI reserves the right to site-verify installations prior to approval and incentive payment for any project.
6. *Incentive payment:* Incentives for retrofit projects can be built into the trade ally invoice as a discount to the customer or the customer may choose to receive the financial incentives upon program verification of project completion.
7. *Reporting to EAI:* All projects will be uploaded for verification in EAI's database for process approval.
8. *Auditing and evaluation:* All projects are subject to auditing and/or evaluation requirements as set by EAI and/or the Arkansas Public Service Commission (APSC).

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Small Business Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 1,876,000	74.6%
Non-Incentives	\$ 639,000	25.4%
Total Budget	\$ 2,515,000	100.0%

¹⁸ The Small Business program does a significant sample of post inspections for established trade allies and a higher than significant sample for new trade allies until they are established. EAI does a significant sample of post inspection projects.

COST-EFFECTIVENESS

Small Business Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 6,972,528
	Benefit-cost ratio	3.02
	NPV (average installation)	\$ 233.31
Ratepayer Impact Measure (RIM)	NPV	\$ (451,578)
	Benefit-cost ratio	0.94
	Lifecycle revenue impact per kWh	\$ (0.003)
	2016 revenue impact per kWh	\$ (0.039)
Total Resource Cost Test (TRC)	NPV	\$ 3,400,925
	Benefit-cost ratio	1.87
	Levelized cost per kWh	\$ 0.039
Program Administrator Cost (PAC)	NPV	\$ 4,941,546
	Benefit-cost ratio	3.08
	Levelized cost per kWh	\$ 0.011

SAVINGS TARGETS & PARTICIPATION

Measure Installations	29,886
Annual MW Savings (Net, At Source)	1.8
Annual MWh Savings (Net, At Source)	12,140

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.2.4. CitySmart

PROGRAM DESCRIPTION

The CitySmartSM Program is a public sector program that is targeted to local publically funded institutions. The program should assist end use customers in overcoming barriers that are specific to public funded groups. Through hands on expertise and consulting, the program benchmarks the partner's energy use, and identifies a roadmap to success for the partners. Customers will be given guidance throughout their experience in the program.

The CitySmartSM Program is designed to minimize the following market barriers to energy efficiency (EE) implementation for EAI's public sector customers:

- Budget constraints
- Lack of understanding about project financials
- Lack of awareness on energy efficient technologies

The implementation process for CitySmartSM includes the following steps:

1. Program expertise and consulting
2. Benchmarking energy use
3. Developing an Energy Master Plan
4. Technical assistance with EE projects
5. Communication support

In addition, the program implementation contractor will educate customers on the various financial vehicles available to fund the implementation of energy efficiency improvements. The implementation contractor will further leverage the program's incentive dollars and encourage the participation of trade allies that can deliver energy efficient products and services in a cost-effective manner.

TARGET MARKET

The CitySmartSM program is targeted to public sector facilities, including those run by counties, cities, towns, as well as public/private primary and secondary schools, and junior colleges and universities in EAI's service territory.

MARKET SIZE

There are approximately 540 public sector customers in EAI's territory.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

The CitySmartSM program offers direct install (DI) measures, prescriptive measures and custom measures that can be measured and verified. Examples of some EE measures are listed below:

Direct Install Measures

- Low-flow faucet aerators
- Pre-rinse spray valves
- Vending machine controls

- Compact fluorescent lamps (CFLs)
- Low-flow showerheads
- Gaskets
- Strip curtains

Prescriptive Measures

- High efficiency lighting
- Lighting controls
- Refrigeration
- High efficiency HVAC / Chillers
- Personal Computer Power Management (PCPM)
- High efficiency new construction

Custom Measures

- Variable frequency drives (VFDs)
- Water / Waste water treatment upgrades
- HVAC / Chiller controls
- Building automation controls

EAI will provide financial incentives for approved measures. If prescriptive savings have not been established for a particular qualifying EE measure, then incentives may be paid on the basis of verified EE savings using Performance Measurement and Verification (M&V) Protocols. The incentive levels will vary by measure, and final incentive levels and incentive capping will be determined in the final program implementation planning period

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An implementation contractor will help EAI administer the CitySmartSM Program.

Key elements of the City Smart Program implementation strategy include:

1. *Trade ally recruitment and training:* Trade allies will be recruited to participate in training sessions regarding program incentives, and participation processes and requirements.
2. *Public sector customer recruitment:* Customers will be recruited primarily through direct outreach activities by the implementation contractor.
3. *Program implementation:* The implementation contractor will work with customers to collect and review building and energy use data, benchmark performance, and develop an Energy Master Plan. The plan will then be used to recommend upgrades that are

eligible for rebates and technical assistance. The implementation contractor will guide customers and trade allies through the participation process to minimize barriers to participation.

4. *QA/QC review:* Incentive applications will be subject to a QA/QC review to ensure all required forms and documentation have been submitted and that incentive calculations are correct. To minimize errors in this process there will be a desk review of 100% of submitted applications to verify that application information, calculations, invoices, and equipment information are in agreement with the scope of work received for the project. Discrepancies will be addressed by requesting supplemental information from the participant or the installing contractor. EAI reserves the right to withhold incentive payment on any project where adequate documentation has not yet been received. Field verification will be performed on a sample of projects as listed in Project Verification, but is not intended to be a remediation to poor documentation provided by participants or installing contractors.
5. *Project verification:* EAI will perform pre- and post-installation verifications on a statistically significant sample of projects (expected to be between 15% and 25% of projects). These inspections will be sampled from all projects types, and inspections will not be targeted to achieve both a pre and post inspection on all sampled projects. However, inspections will be weighted toward larger, higher complexity projects to maximize the quality control effort on projects with high risk to the programs. EAI reserves the right to site-verify installations prior to approval and incentive payment for any project.
6. *Incentive payment:* Incentives for retrofit projects can be built into the trade ally invoice as a discount to the customer or the customer may choose to receive the financial incentives upon program verification of project completion.
7. *Communication support:* Implementation contractor will provide communication support to the customer as needed.
8. *Reporting to EAI:* All projects will be uploaded for verification in EAI's database for approval.
9. *Auditing and evaluation:* All projects are subject to auditing and/or evaluation requirements as set by EAI and/or the Arkansas Public Service Commission (APSC).

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

City Smart Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 1,688,000	60.7%
Non-Incentives	\$ 1,094,000	39.3%
Total Budget	\$ 2,782,000	100.0%

COST-EFFECTIVENESS

City Smart Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 4,874,392
	Benefit-cost ratio	2.37
	NPV (average installation)	\$ 142.75
Ratepayer Impact Measure (RIM)	NPV	\$ 2,611,001
	Benefit-cost ratio	1.43
	Lifecycle revenue impact per kWh	\$ 0.011
	2016 revenue impact per kWh	\$ 0.130
Total Resource Cost Test (TRC)	NPV	\$ 4,318,201
	Benefit-cost ratio	1.99
	Levelized cost per kWh	\$ 0.041
Program Administrator Cost (PAC)	NPV	\$ 6,067,258
	Benefit-cost ratio	3.31
	Levelized cost per kWh	\$ 0.011

SAVINGS TARGETS & PARTICIPATION

Measure Installations	34,146
Annual MW Savings (Net, At Source)	2.3
Annual MWh Savings (Net, At Source)	14,000

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.2.5. Agricultural Energy Solutions

PROGRAM DESCRIPTION

According to the University of Arkansas, the contribution of the Agriculture Sector as a percentage of state GDP in Arkansas equals 12% -- twice the national average.¹⁹ It only follows that farms and related business in the state are strong candidate for a targeted EE program.

Through a mixture of farm audits, custom and prescriptive incentives, and education of agricultural suppliers, this program will help farms and other agriculture customers overcome the primary barriers to EE within this sector:

- Lack of easy access to qualified vendors and installers;
 - Farmers rely on farm (agricultural) suppliers to help them make decisions about equipment replacement. The extent to which a farmer replaces his or her farm equipment with energy efficient equipment is driven by the extent to which his or her farm supplier stocks and recommends this equipment.
- Lack of EE information and awareness of energy and non-energy benefits;
- The perception that energy efficient technologies have high “first costs”;
- Lack of customer understanding about measure payback;
- Lack of awareness of energy efficient technologies;
- Absence of tools to quantify savings;
- Lack of access to capital.

TARGET MARKET

The target markets are farms and production agriculture operations. The program will also target businesses (agricultural suppliers, electrical contractors) that provide farm equipment sales and service.

MARKET SIZE

There are approximately 17,000 accounts in EAI’s territory on a farm tariff. There are also approximately 1,400 industrial-agricultural accounts with demand of less than 1 MW²⁰ who have not participated in EAI programs in the past.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Any measure that can improve an agricultural customer’s electric energy efficiency will be eligible, provided it is cost-effective.²¹ Examples of efficient technology types that may be incorporated in an agricultural energy efficiency project include:

- Lighting measures

¹⁹ University of Arkansas. Economic Impact of Arkansas Agriculture (2010).

²⁰ Per APSC rules, such customers are not eligible to opt-out.

²¹ Under the Total Resource Cost Test

- Variable frequency drives
- Other measures based on cost-effectiveness analysis

Incentive levels are anticipated to equal between 25% and 75% of project incremental costs, or a buy-down to a 1.5 year simple payback, whichever is less.

FEDERAL & STATE INCENTIVES

The USDA Rural Energy for America Program (“REAP”) provides grants for energy audits and renewable energy development assistance. It also provides funds to agricultural producers and rural small businesses to purchase and install renewable energy systems and make EE improvements. To the extent possible, Agricultural Energy Solutions will coordinate program incentive and service delivery with REAP and assist qualified customers in applying for REAP grants.²²

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable

DELIVERY STRATEGY

An EAI implementation contractor will administer Agricultural Energy Solutions.

Key elements of EAI’s implementation strategy include:

1. *Supplier Education & Training:* Farms rely on agricultural suppliers to help them make decisions about equipment replacement. Often this farmer/supplier relationship is longstanding and in such cases the farmer puts complete trust in suppliers’ recommendations. Therefore, the extent to which a farmer replaces his or her farm equipment with energy efficient equipment is driven by the extent to which his or her farm supplier stocks and recommends this equipment. This program will capitalize on this farmer/supplier relationship by working with suppliers to ensure they are educated about energy efficient equipment, and are stocking it to the greatest extent possible.
2. *Energy Survey:* Surveys for qualified agricultural customers, recommending equipment that’s available for incentives, and encouraging customers to work with their suppliers to replace this equipment.
3. *Application submittal:* Farm auditors will assist participants with incentive applications and required documentation.

²² The grants are awarded on a competitive basis and can be up to 25% of total eligible project costs. Grants are limited to \$500,000 for renewable energy systems and \$250,000 for energy efficiency improvements. Grant requests as low as \$2,500 for renewable energy systems and \$1,500 for energy efficiency improvements will be considered. At least 20% of the grant funds awarded must be for grants of \$20,000 or less.

4. *QA/QC review:* Incentive applications will be subject to a quality assurance review by program technical staff to ensure accuracy of savings and incentive calculations. To minimize errors in this process there will be a 100 % review on all applications for verification of equipment efficiency rating, proper installation, etc. on the part of the Company.
5. *Project verification:* EAI reserves the right to site-verify installations prior to project approval and incentive payment. The implementation contractor will perform site verification on a statistically significant number of installations to verify the performance of work completed. All projects over a certain incentive threshold (the threshold will be determined as part of the final program design with implementing contractor) and all Comprehensive projects will require site verification.
6. *Incentive payment:* To minimize barriers to participation, the program will seek to expedite incentive payments to participating C&I customers. As discussed above, incentive payment is subject to approval of project documentation and on-site verification. A fraction of the incentive will be paid after initial project approval and the remainder following project verification.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Agricultural Energy Solutions Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 260,000	26.9%
Non-Incentives	\$ 705,000	73.1%
Total Budget	\$ 965,000	100.0%

COST-EFFECTIVENESS

Agricultural Energy Solutions Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 4,279,904
	Benefit-cost ratio	3.19
	NPV (average installation)	\$ 364.25
Ratepayer Impact Measure (RIM)	NPV	\$ 830,923
	Benefit-cost ratio	1.20
	Lifecycle revenue impact per kWh	\$ 0.007
	2016 revenue impact per kWh	\$ 0.097
Total Resource Cost Test (TRC)	NPV	\$ 2,558,015
	Benefit-cost ratio	2.04
	Levelized cost per kWh	\$ 0.018
Program Administrator Cost (PAC)	NPV	\$ 4,113,129
	Benefit-cost ratio	5.52
	Levelized cost per kWh	\$ 0.007

SAVINGS TARGETS & PARTICIPATION

Measure Installations	11,750
Annual MW Savings (Net, At Source)	0.96
Annual MWh Savings (Net, At Source)	7,162

OVER-SUBSCRIPTION PLAN

Over-subscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

3.2.6. Agricultural Irrigation Load Control

PROGRAM DESCRIPTION

The AILC program pays participants incentives in return for allowing EAI to interrupt their pumping loads (also referred to as curtailment event or scheduled event) during summer peak loads. The load control season runs from June 1st through August 31st. The AILC program provides other benefits for the participants such as real time text or e-mail notifications of curtailment events and allows participants to remotely control (i.e., turn on and off) the wells that are actively participating in the Program. The Program is designed to minimize the following market barriers to demand response implementation for EAI's agricultural pumping customers:

- Lack of program awareness; the AILC program will market the benefits of the AILC program through print and event marketing which will feature incentives and other benefits.
- Technical impediments; the AILC program will work aggressively to minimize the lack of equipment, software, and two way communication systems required by the program for both participants and EAI operations.
- Burdensome capital costs; the AILC program will fund the equipment and installation costs thereby minimizing a capital outlay by participants.
- Uninformed cultural energy environment; the AILC program will transform long-term and permanent changes in attitudes, awareness, and knowledge about energy savings and use of energy efficient technologies in order to achieve energy savings. Marketing and rebates are the two primary methods in which this program will achieve these long-term changes. General awareness campaigns and program-specific marketing will raise awareness and understanding of the demand reducing opportunities for participant's energy consumption.

TARGET MARKET

The target market is customers with large motors used in agriculture. Examples of the market are irrigation pumps and aquaculture aerator pumps; however any farm pump larger than 10 HP and with a minimum monthly run time of 64 hours in the AILC Program months will qualify for the program.

MARKET SIZE

There are on average 13,000 active irrigation pump accounts in EAI's territory annually.

ELIGIBLE MEASURES & INCENTIVE STRATEGY

Participating customers may qualify²³ to receive a monthly incentive for June, July and August. The incentive will be paid for each month of active participation regardless of whether any curtailment events were called for that month. Participants may opt-out and re-enroll in the program at any time prior to June 1st. After June 1st a customer may opt-out of the program but re-enrollment into the program will be considered on a case by case basis. Allowable mid-season re-enrollment examples would be administrative

²³ Customer interference with load availability may disqualify monthly incentive

error, change of pump ownership or management, account activation or de-activation and pump motor modifications.

Curtailment events will have a maximum duration of four hours (not counting a 15 minute ramp-up time) and shall be scheduled at any time between the hours of 12:00 Noon and 9:00 PM Monday through Friday. No planned curtailment events will be called on holidays or weekends. No more than eight hours of planned curtailment events will be scheduled in the same week. Curtailment events will be limited to 60 hours of planned curtailed event (not counting emergency events). A planned event is a curtailment event initiated by

1. Midcontinent Independent System Operator (“MISO”) for registered LMRs in the EAI service territory
2. EAI to alleviate load or market conditions
3. AILC Program Administration for testing, measurement and verification.

In addition to the 60 hours of planned curtailment events EAI reserves the right to call an emergency curtailment anytime from June 1st to August 31st even if all of the planned event available hours have been exhausted.

Incentive levels will vary by motor size. EAI anticipates the average incentive to be \$100 per month for June, July and August. The proposed incentive level will be initially set as described in Table 1 below; however market reaction, participation levels and positive cost-benefit results will factor into future incentive modifications.

TABLE 4

Incentive Categories

Motor HP	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6	Tier 7	Tier 8	Tier 9
	10-25	26-50	51-75	76-100	101-125	126-150	151-175	176-200	Larger hP
Monthly Incentive*	\$ 50.00	\$ 100.00	\$ 200.00	\$ 250.00	\$ 350.00	\$ 450.00	\$ 550.00	\$ 650.00	upon request

**Incentives void if customer actions interfere with event. Minimum 64 hours of runtime required during summer months*

Participant actions resulting in the unavailability of a participating motor during a curtailment event will cause the forfeiture of that month’s incentive. The minimum size motor will be 10 HP. The Active participation is defined by the following characteristics:

1. A participant must have an active, non-delinquent EAI account
2. The participating account must be equipped with AILC control equipment except where EAI has failed to install equipment through no fault of the participant.
3. The enrolled motor must be available for curtailment during the designated program hours. Only the motor’s ability to be activated remotely is required to participate, no motor load is required for the motor to be considered available.
4. A minimum of 64 run-time hours during the program month is required. This is equivalent to running the motor 16 hours a day four times during the month.

FEDERAL & STATE INCENTIVES

None applicable.

THIRD PARTY FINANCING

None applicable.

DELIVERY STRATEGY

An implementation vendor will assist EAI with turn-key program implementation. Key elements of program delivery include:

- Customer recruitment through face-to-face events and marketing channels such as direct mail, outbound calling, the program Web site, and other tactics.
- Customer installation scheduling services
- Pre-screening of interested customers
- Remote Control of enrolled motors. Installation and informational services, including customer instruction of remote control functionality and portal registration
- Customer support and complaint resolution
- Maintenance and repair or replacement of defective control units
- Communication of curtailment via email or other media
- Administration of curtailment events
- Monthly incentive payment processing
- Measurement and Verification Events to ensure system is operational
- Quality control audits will be performed by the contractor on a statistically significant sample of each installer's sites.

PROGRAM TRACKING REQUIREMENTS

The program will accurately track the variables necessary to minimize differences between reported and evaluated savings.

ADMINISTRATIVE REQUIREMENTS

Program administration will be the responsibility of EAI via vendor operations management.

ESTIMATED BUDGET

Agricultural Irrigation Load Control Budget Summary	2016	
	Total Budget	% of Budget
Incentives	\$ 349,000	9.9%
Non-Incentives	\$ 3,174,000	90.1%
Total Budget	\$ 3,523,000	100.0%

COST-EFFECTIVENESS

Agricultural Irrigation Load Control Test Results	Results	
Participant Cost Test (PCT)	NPV (all installations)	\$ 3,878,118
	Benefit-cost ratio	N/A
	NPV (average installation)	N/A
Ratepayer Impact Measure (RIM)	NPV	\$ 36,204,872
	Benefit-cost ratio	4.83
	Lifecycle revenue impact per kWh	N/A
	2016 revenue impact per kWh	N/A
Total Resource Cost Test (TRC)	NPV	\$ 40,363,557
	Benefit-cost ratio	8.61
	Levelized cost per kWh	N/A
Program Administrator Cost (PAC)	NPV	\$ 38,633,859
	Benefit-cost ratio	6.49
	Levelized cost per kWh	N/A

SAVINGS TARGETS & PARTICIPATION

Participants	-	1271
Annual MW Savings (Net, At Source)		16.3
Annual MWh Savings (Net, At Source)		-

OVER-SUBSCRIPTION PLAN

Oversubscription will be managed by suspending marketing and outreach. Once the budget for the current year is expended, a waiting list will be established for program participation in the following program year.

4. Administration

Implementation planning at the portfolio level involves an ongoing assessment of program mix and timing to assure that the portfolio remains aligned with EAI's objectives and the Commission's goals. Specific implementation activities associated with the whole portfolio include program planning (as informed by evaluation and market research), tracking system development, market research and assessment, development and management of an overall marketing and communications strategy, and design and management of a back office. The back office activities include processes for incentive fulfillment, procurement of implementation services, and integration with broader corporate services such as billing, accounting and web services.

Portfolio Planning. EAI has developed this plan to satisfy statutory objectives and provide superior EE and service to its customers. Once the plan has been approved, its implementation will be accompanied by a process that includes continual review and incorporation of feedback.

Continue to Develop the Trade Ally Network. An essential component to the successful implementation of these programs is continuing to build out the trade ally network, including contractors, vendors, and distributors, and energy service companies (ESCOs), within the EAI service territory. These trade allies typically provide the final link to most customers and therefore represent EAI's EE programs in the field. Through the Quick Start Programs, EAI's current Comprehensive programs and EEA, robust trade ally networks have been formed. EAI will continue working to grow and nurture these networks in 2016.

Back-Office Systems and Record-keeping. EAI will continue to work internally and with program implementation contractors to ensure program data is tracked as accurately and as comprehensively as possible and continue to work to meet independent EM&V needs.

Resources. As stated above in the Plan, EAI has sufficient staff to manage its programs and does not plan to expand its EE staff in 2016.

Flexibility. In order to achieve the energy savings and demand reduction targets set out in this Plan, EAI must retain flexibility to allocate resources across the portfolio to meet the challenges and changes that will be presented as the Comprehensive programs launch and grow over time. Changing market conditions, the performance of technologies, and the lag associated with formal evaluations all present risks to EAI's achievement of these targets. These risks as much as practical have been taken into account in the design of this Plan, and addressed by designing a diversified set of programs that are simple and have performed well in Arkansas as well as other jurisdictions .

However, risk changes over time. For example, changes in the overall economy can have an effect on the demand for energy-efficient products and services – and the longer the time horizon, the more change can be expected relative to the initial design stage. For this reason,

EAI reserves the right to move program funding between programs to maximize the Company's opportunity to reach and exceed portfolio targets. As set out in the Energy Efficiency Cost Recovery rider, EAI reserves the right to notify the commission if portfolio budgets are expected to differ by +/- 10% from the approved levels. Further based upon Commission past directives EAI will move no more than 10% from any program budget to another program without prior notification and approval from the Commission.

Throughout the implementation period, EAI will remain vigilant to ensure that programs continue to meet the Benefits and Objectives laid out in the Rules and are implemented to be cost-effective.

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Appendix A: Avoided Costs

EAI Discount Rate : 5.94%
CO2 Cost : \$0
Natural Gas Price (nominal) : \$4.71 starting 2014 (BP15 forecast)

Avoided Capacity Based on:

- a) Baseline capital cost of \$820/kW (2014 \$)
- b) Levelized fixed charge \$79 (9.63% LFCR)
- c) Line Losses
 - i. Residential – 9.73%
 - ii. Commercial – 9.48%
 - iii. Industrial – 7.90%
 - iv. Retail – 9.06%
- d) Reserve margin 12% for all years
- e) Avoided T&D of \$22.87/kW-yr in 2014, escalating according to Handy Whitman Forecast from Global Insight 4Q 2013

These assumptions were developed by EAI's Supply Planning Organization.

Appendix B: Calendar Year Costs

EAI will be closing and transitioning Existing 2015 programs into comprehensive programs. This transition will require:

1) Continuing 2015 programs ("QSP") for until December 31, 2015 before the comprehensive plans will be available to EAI customers. Assuming the comprehensive Plan can be approved by December 1, 2011, then the existing programs change to the 2016 program plan January 1, 2016.

2) AWP Transition

The AWP has always underperformed relative to its planned results in the EAI service territory. Indeed, only 105 homes were weatherized in EAI service territory during the 2014 program year. Nonetheless, the Company contemplates the following steps to transition from the AWP:

- 1) The AWP will close all services to customer homes on December 31, 2015;
- 2) Remaining residences in the AWP program can be moved into the Home Energy Solutions Program;
- 3) The AWP will continue to be funded through the end of March, 2016 to ensure all houses that have been completed by December 31 have been reported and paid for through the AWP funds;
- 4) The Central Arkansas Development Council ("CADC"), the administrator of the AWP, will retain administrative funds for the filing of the AWP's final annual report; and
- 5) The CADC will refund EAI any funds that are not utilized to weatherize EAI customer homes or to complete the program year 2015 annual report on May 1, 2016

3) New Homes closing plan

The New Homes Program has not been able to provide energy savings as planned because of the economic downturn since the program's inception in 2011. The program was never able to gain enough traction in a recession influenced market. The cost of marketing, implementing, administering, and reporting were too great given the limited participant projects and thus did not produce an economically viable program. The Company's transition plan for the New Homes Program includes the following items:

- 4) The New Homes Program will close all services to homebuilders on December 31, 2015;

Appendix B: Calendar Year Costs

- 5) Participating homebuilders will be notified of program closure in July, 2015 and no new project applications will be accepted after August 1, 2015 to allow homebuilders time to complete projects before the deadline; and
- 6) Participating homebuilders will be required to submit all project documentation by September 30, 2015 to allow time for QC, processing, and payment.

2) A transition cost to close projects on QSP will occur that will last longer than the 4 month period above. Projects within the Large C&I programs are the ones that will take longer to complete during the transition period.

3) All 2015 expected expenditures will be accrued into 2016 and included within the 2016 EECR true up. Any projects that are not completed (particularly the Large C&I and CitySmart EE projects that can have split years to complete) will be moved into the new 2016 EE programs for incentive payments.

