

comprehensive analysis of energy efficiency technologies, best practice program designs, and analysis of program and portfolio costs and customer participation experienced by other utilities.

3. EMI's Quick Start Plan offers energy efficiency programs for each of EMI's customer classes and is otherwise compliant with Rule 29. The programs cover the period from mid-2014 (or whenever MPSC approval is obtained) through 2016. The portfolio is based on best-practices and proven approaches in other jurisdictions. The programs build infrastructure necessary to support potential future comprehensive programs, and explicitly address the needs of all customer classes, including a special emphasis on low-income customers, as well as government buildings. The cumulative budget for all programs through 2016 is \$12,499,810.

4. The programs in EMI's Quick Start Plan include:

- ***Residential Lighting.*** This program will increase the market penetration of ENERGY STAR® certified lighting products. The program will offer opportunities for all residential customers to purchase a variety of high efficiency lighting products through retail sales channels with incentives that reduce customer purchase costs. Partnerships with community organizations will be used to provide free products to low-income customers.

- ***Residential HVAC Equipment and Tune-up Program.*** The Residential HVAC Equipment and Tune-up Program provides customers with financial incentives for eligible high-efficiency technologies. The incentives are offered in a prescriptive format, and address heating and cooling loads, the largest energy usages in most homes. The program also offers "tune-ups" of existing air conditioners (A/C) and heat pumps to EMI's customers with a particular emphasis on low-income customers.

- ***Residential Audit and Direct Install Program.*** The Audit and Direct Install Program provides education about home energy usage as well as contractor installed products that will result in immediate energy and cost savings. These services are provided at no cost to the customer. The customer will be left with a report that details how energy is currently being used in the home, ways the customer could reduce their energy consumption, and other EMI programs that may of benefit to the customer. Each low-income customer will also be offered an A/C tune-up during the audit for additional savings and comfort.
- ***Commercial, Industrial, and Governmental (CIG) Prescriptive.*** This program will provide an expedited, simple solution for qualifying CIG customers interested in purchasing energy efficient technologies with comparatively standard technologies and predictable savings. The program will offer pre-specified or “prescriptive” financial incentives and technical assistance to customers, including audit of government buildings, and will promote upgrades such as lighting, lighting controls, HVAC systems, and food service equipment. This program will offer a simplified method to make efficient purchase choices from an established list of common technologies without requiring complex analysis or program participation rules.
- ***CIG Custom.*** The Custom Program will address technologies not covered by the Prescriptive Program, and/or technologies to be installed in unusual applications or where the savings associated with the project require additional engineering to be estimated accurately. The Program will also provide technical assistance to eligible customers to aid them in implementing energy efficient retrofit opportunities, as well as high-

efficiency opportunities at the time of new equipment purchase, facility modernization, new construction, or industrial process improvements.

5. These programs are expected to address EMI’s customer classes as follows:

	Residential	Residential – Low Income	Commercial	Industrial	Governmental
Residential Lighting	X	X			
Residential HVAC Equip. & Tune-up	X	X			
Residential Audit and DI	X	X			
CIG Prescriptive			X	X	X
CIG Custom			X	X	X

6. Pursuant to Rule 29, the programs in the proposed Quick Start Plan must be capable of being implemented within six (6) months of Plan approval. Should any EMI customer implement any of the technologies or programs contained in the Quick Start Plan prior to plan approval and should such customer obtain a letter from the Commission that the steps that customer has undertaken would qualify for any benefits, credits, or reimbursements under EMI’s Quick Start Plan, EMI requests that it be allowed to provide any benefits, credits, or refunds to any such customer upon receipt of written authorization to do so from the Commission. Entergy Mississippi further requests that it be allowed to submit any costs associated with such a request through its proposed Energy Efficiency Rider Schedule EE-2, to be filed contemporaneously herewith.

7. Service on Entergy Mississippi in this proceeding should be made to:

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WHEREFORE, PREMISES CONSIDERED, Entergy Mississippi requests that the Commission review the Quick Start Plan attached hereto as Attachment A and approve the Plan for implementation at its earliest convenience.

Entergy Mississippi further prays for such other, further, and general relief as the Commission deems necessary, useful, or appropriate.

This the 10th day of January, 2014.

ENTERGY MISSISSIPPI, INC.

BY: 
SHELLY MOTT BASS
COUNSEL

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RP 6.111 CERTIFICATE OF SERVICE

I, SHELLY MOTT BASS, Attorney for Entergy Mississippi, Inc., hereby certify that on this day I have caused to be filed the foregoing with:

Brian U. Ray
Executive Secretary
Mississippi Public Service Commission
2nd Floor, Woolfolk State Office Building
Jackson, Mississippi 39201

and that on this day I have caused to be transmitted one copy of the foregoing to:

Shawn Shurden, General Counsel
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and that in so doing I have complied with Rule 6 of the Commission's Public Utilities Rules of Practice and Procedure.

This the 10th day of January, 2014.



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Entergy Mississippi, Inc.
2014 – 2016
Quick Start Energy Efficiency Portfolio Plan

January 10, 2014

Entergy Mississippi, Inc.
2014 – 2016 Quick Start Energy Efficiency Portfolio Plan
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Executive Summary

Entergy Mississippi, Inc. (“EMI” or “the Company”) is filing this portfolio of Quick Start energy efficiency programs (“the Plan”) in response to Mississippi Public Service Commission Rule No. 29 (“Rule 29”) of the Public Utilities Rules of Practice and Procedure (“MPSC Rules”) approved in Docket 2010-AD-2. The proposed Quick Start Portfolio programs offer energy efficiency programs to each of EMI’s customer classes and are otherwise compliant with Rule 29. The programs cover the period from mid-2014 (or whenever MPSC approval is obtained) through 2016.

The portfolio is based on best-practices and proven approaches in other jurisdictions. The programs build infrastructure necessary to support potential future comprehensive programs, and explicitly address the needs of all customer classes, including a special emphasis low-income customers, as well as government buildings. The cumulative budget for all programs through 2016 is \$12,499,810. The estimated budget and load impact are summarized in Table 1¹.

Table 1: EMI Quick Start Portfolio

	Cumulative Program Impact by End of 2016					
	Prescriptive	Custom	Audit/DI	Lighting	HVAC	TOTAL
MWh	14,514	6,438	5,393	42,475	11,795	80,614
MW	2.183	0.773	4.497	46.616	6.057	60.126
TOTAL Cost (\$)	\$3,579,273	\$1,375,053	\$1,596,457	\$3,184,131	\$2,764,895	\$12,499,810

The programs include:

- **Residential Lighting.** This program will increase the market penetration of ENERGY STAR® certified lighting products. The program will offer opportunities for all residential customers to purchase a variety of high efficiency lighting products through retail sales channels with incentives that reduce customer purchase costs. Partnerships with community organizations will be used to provide free products to low income customers.
- **Residential HVAC Equipment and Tune-up Program.** The Residential HVAC Equipment and Tune-up Program provides customers with financial incentives for eligible high-efficiency technologies. The incentives are offered in a prescriptive format, and address heating and cooling loads, the largest energy usages in most homes. The program also offers “tune-ups” of existing air conditioners (A/C) and heat pumps to EMI’s customers with a particular emphasis on low-income customers.
- **Residential Audit and Direct Install Program.** The Audit and Direct Install Program provides education about home energy usage as well as contractor installed products that will result in immediate energy and cost savings. These services are provided at no cost to the customer. The customer will be left with a report that details how energy is currently being used in the home, ways the customer could reduce

¹ MW and MWh savings are cumulative gross savings at the meter level.

their energy consumption, and other EMI programs that may of benefit to the customer. Each low-income customer will also be offered an A/C tune-up during the audit for additional savings and comfort.

- **Commercial, Industrial, and Governmental (CIG) Prescriptive.** This program will provide an expedited, simple solution for qualifying CIG customers interested in purchasing energy efficient technologies with comparatively standard technologies and predictable savings. The program will offer pre-specified or “prescriptive” financial incentives and technical assistance to customers, and will promote upgrades such as lighting, lighting controls, HVAC systems, and food service equipment. This program will offer a simplified method to make efficient purchase choices from an established list of common technologies without requiring complex analysis or program participation rules.
- **CIG Custom.** The Custom Program will address technologies not covered by the Prescriptive Program, and/or technologies to be installed in unusual applications or where the savings associated with the project require additional engineering to be estimated accurately. The Program will also provide technical assistance to eligible customers to aid them in implementing energy efficient retrofit opportunities, as well as high-efficiency opportunities at the time of new equipment purchase, facility modernization, new construction, or industrial process improvements.

	Residential	Residential – Low Income	Commercial	Industrial	Governmental
Residential Lighting	X	X			
Residential HVAC Equip. & Tune-up	X	X			
Residential Audit and DI	X	X			
CIG Prescriptive			X	X	X
CIG Custom			X	X	X

The Planning Process

The programs proposed in the Plan are designed to address the objectives set forth in Rule 29. The portfolio was developed through a comprehensive analysis of energy efficiency technologies, best practice program designs, and analysis of program and portfolio costs and customer participation experienced by other utilities.

The analysis began with compiling the list of possible technologies from sources including those contained in the Arkansas Deemed Savings Collaborative reports, California’s Database of Energy Efficiency Resources (DEER), the ENERGY STAR program run by the US EPA and DOE, and the Consortium for Energy Efficiency, among others. Through these sources, each of these technologies was evaluated individually for market demand and/or need.

The program analysis considered the list of energy efficiency technologies in light of the Quick Start expectations and requirements set forth in Rule 29, and guidance from best practice programs from around the country. For each of the potential programs, an incentive scenario, estimate of program costs and participation rate were developed.

1. Introduction

1.1. Goals of the Quick Start Filing

1.1.1. *Achieving the Benefits and Objectives of the Commission*

The quick start portfolio presented here will meet the guidelines set forth in Rule 29 of the MPSC Rules, including:

1. **Job Creation and Workforce Development** - The programs are intended to transform the market by creating a demand for energy efficiency products and services and stimulate the development of the local workforce to meet this demand. This, in turn, will help create a sustainable, long term energy efficiency market. The programs, where possible, also take advantage of existing local expertise, such as local community colleges in our service area.
2. **Create Energy and Demand Savings for Customers** - Through the implementation and ongoing development of the Quick Start programs, EMI's customers will have the opportunity to participate in energy efficiency programs that will potentially reduce their energy and demand use.
3. **Create Customer Cost Savings and Increase Comfort Level** – Weatherization, education and other energy efficiency tools and technologies will aid customers in lowering their energy costs and / or increasing the comfort of their homes and businesses. This is especially important for those customers who fall within the lower income population of the state.

Rule 29 states that the objectives of the Quick Start programs shall be:

- The development of increased utility program capabilities and infrastructure;
- The expansion of energy efficiency expertise throughout Mississippi;
- The identification of locally successful (and unsuccessful) energy efficiency program delivery strategies; and
- The initial delivery of energy savings benefits to a sizable cross section of utility customers.

Rule 29 goes on to require that the Quick Start programs:

- Be selected from programs that have been widely implemented in other jurisdictions and can provide aggregate benefits to a majority of utility customers;
- Be well-defined, and have well-established track records;
- Be capable of being implemented within six months of approval;
- Use commercially available technologies;
- Not duplicate programs funded through other sources, and that they coordinate with such programs where applicable;
- Comply with promotional practices rules;
- Form a portfolio of fewer programs providing significant savings, rather than a portfolio of many smaller programs with minimal impacts;
- Address all customer classes; and

- Are exempt from the requirement to provide cost-effectiveness showings.

Each of these attributes and objectives and how each program addresses them are discussed further, where appropriate, within the individual program descriptions provided below.

2. EMI's Quick Start Programs

2.1. Residential Lighting

2.1.1. (a. and c.) General Description of the Program and the Services to Be Provided, and Specific Program Objectives

The objective of the Residential Lighting Quick Start Program is to increase the market share of ENERGY STAR certified lighting products by providing incentives at retail to decrease customer costs, as well as information and education to increase customer awareness and acceptance of energy-efficient technology. Eligible energy-efficient lighting products will include CFLs, LEDs and fixtures.

The program will use a retailer based approach to simplify consumer participation by providing customers with instant rebates at the cash register for qualifying products. A retailer based approach ensures that the rebate is generally more transparent to the consumer leading to greater customer satisfaction and recognition of the utilities efforts to help its customers save energy. Specifics concerning the incentive strategy are found below in section 2.1.3.

Customer Participation

Customers will experience the program in two ways: First in the messaging on the value of purchasing ENERGY STAR certified lighting products through EMI's marketing campaign; and secondly during their normal process of shopping for lighting products they will be exposed to point-of-purchase (POP) displays and incentives reinforcing the value of purchasing ENERGY STAR certified lighting products.

Retailer Participation

The program will establish partnerships between EMI, retailers and their suppliers (manufacturers) to provide customers with instant rebates at the cash register for qualifying products. EMI's program structure includes both an instant markdown and an in-store coupon, depending upon location. These options are explained in detail within the Incentive Strategy section of this filing.

Lighting Market Analysis and Impact of the Energy Independence and Security Act of 2007 (EISA)

The Energy Independence and Security Act of 2007 (EISA) went into effect in 2012, setting minimum efficiency standards for incandescent lamps. The EISA legislation also bans the import of almost all standard incandescent general service lamps in the U.S. market by mid-2014. The legislation does not ban, in general terms, incandescent technology from the general service lamp category, but all currently available standard incandescent lamps over 29 watts may not be imported after the start of 2014.

Many manufacturers now have full lines of halogen products that are EISA compliant, and these are available from major retailers nationally. These products use ≈25% less energy than standard incandescent lamps but are otherwise very similar to current standard incandescent lamps.

Furthermore, baseline studies² conducted have demonstrated that even though energy efficient lighting technology has been in the market for some time, market penetration remains low with on average only 20%

² D&R International "Residential Lighting Market Profile-2012." Page 2, 2012; NMR Group, Inc. "Connecticut Efficient Lighting Saturation and Market Assessment." Page III. Prepared for The Connecticut Energy Efficiency Fund, Connecticut Light and Power, and The United Illuminating Company. October 2, 2012. Final.

socket saturation in most markets nationally including the more mature markets in the Northeast and Western United States. Incandescent (including halogen) lighting still pervades residential applications and the opportunity for energy savings by using more energy efficient technologies (CFLs/LEDs) remains significant. Utility lighting programs are therefore still necessary to continue to move the market towards these more efficient technologies.

2.1.2. (b.) Target Customer Population Addressed by the Program

The Residential Lighting Program targets all EMI residential electric customers. The program also addresses the hard to reach segment of our customer base through a food bank initiative that targets low-income customers. This program element is discussed in greater detail in the incentive strategy section that follows.

2.1.3. (d.) EM&V Procedures and Activities

In order to provide a clear and transparent EM&V plan for the Residential Lighting Program, the plan is broken out into the following:

- A description of the level of rigor involved
- An outline of suggested key researchable issues
- A description of the methodologies and procedures that may be employed in conducting the process and impact evaluation, including data gathering, sampling and analysis methods
- A description of the data and information likely to be needed from key stakeholders

Assigned Rigor Level	In accordance with current <i>acceptable alternative</i> M&V protocol rigor levels (Protocol D-Residential Lighting), EMI’s selected EM&V vendor may conduct customer telephone surveys to obtain information such as socket counts, hours of use, and purchasing habits for the coupon customers. This type of verification is the most cost-effective level of rigor and is the industry standard for this type of program and design. These findings may be supplemented with literature reviews of other studies to determine best estimates. We may conduct phone surveys for the markdown participants.
Key Researchable Issues	<ul style="list-style-type: none"> • How does the changing baselines due to the EISA phase out of standard incandescent lamps impact program future savings? • What are customers’ perceptions of the program, including the incentives and participating retail stores? • Is the Residential Lighting program operating efficiently, with appropriate program and representative support? • Are participating retailers knowledgeable about the program? What additional program effort is needed to educate and engage retailers? • Is program marketing effective?

Impact Evaluation Approach	<p>Deemed savings may be applied for all program technologies.</p> <p>Review tracking system. Review the tracking system and verify program inputs from hard copy program materials to identify any input/ tracking system issues.</p> <p>Verify technologies: Collect information from a random sample of 2015 program participants, and verify savings.</p> <p>Engineering review: A review of the deemed savings calculations may be conducted to ensure accurate calculations along with a tracking system and data review.</p>
Process Evaluation Approach	<p>Program staff interviews: In-depth interviews may be conducted in order to understand program operations, key researchable issues, and receive documentation.</p> <p>Nonparticipant customer interviews (optional): Collect information from a random sample of program nonparticipants to assess awareness of programs, reasons for nonparticipation, etc.</p> <p>Participating retailer interviews: Gather process-related data from a sample of participating retailers to identify their role in customer participation, assess participating retailer understanding of and support for the program, and gather baseline equipment and market effects of the program for impact evaluation.</p> <p>Benchmarking research: Includes research of similar programs to compare program progress and identify best practices.</p>
Data/Information Likely Needed from Program Stakeholders	<ul style="list-style-type: none"> • Program background materials, marketing materials, and existing process flow maps • Retailer point of sale reports • All project and savings information • Participating retailers contact information

2.1.4. (e.) Anticipated Implementation Barriers and How They Will Be Addressed

There are several common implementation barriers to participation for Residential Lighting programs. EMI’s program design has been developed to address these barriers. The table below lists common barriers to participation as well as proposed strategies to overcome each barrier.

Anticipated Implementation Barriers for Lighting	Strategies to Address Barriers
High first cost of energy-efficient lighting technologies compared to incandescent and halogen substitutes	<ul style="list-style-type: none"> • Provide incentives on ENERGY STAR® CFLs and LEDs to make the costs comparable
<p>Lack of consumer understanding of the benefits, savings, and features associated with energy-efficient lighting; Negative perceptions of CFL performance and quality.</p> <p>Customers have more choices of lighting technologies now than ever; for example incandescent products compete with CFLs and LED technologies, with widely differing efficacies (lumen output per watt). Customers no longer</p>	<ul style="list-style-type: none"> • Customer education through field delivery: POP to generate product awareness; promotional events to interact with customers; education and lighting demonstrations to dispel negative perceptions • Sales Associate trainings to reinforce the message customers receive at retail

choose these technologies based on wattage but on light output – either lumens or equivalent lighting output of CFLs or LED, compared with conventional incandescent lamps (e.g. equivalent to a 60-watt bulb).	
Product availability	<ul style="list-style-type: none"> • Robust retail outreach, support, and participation strategy

2.1.5. (f.) Proposed Customer Incentives

As mentioned in the program description, EMI is proposing an incentive strategy that combines a mixture of Markdowns and Coupons. EMI is also proposing a community based distribution model that will directly address low-income customers through local food banks. By distributing efficient bulbs through these community organizations, EMI will provide energy savings for a hard-to-reach customer segment. These incentive strategies are further described below.

Markdowns

The optimal incentive strategy for driving increased CFL and LED product sales is the use of markdowns. Markdowns are an upstream incentive strategy that can be implemented either on a targeted basis or through a competitive solicitation process. Markdowns result in retailers reducing the on-shelf retail price of specified products. They are targeted to Stock Keeping Units (SKUs) that are already part of the retailers on-shelf product mix. Implementation of this incentive strategy may include the following key steps:

- Recruitment of a network of retailers that stock energy efficient lighting products including CFLs, LEDs and fixtures. EMI’s selected vendor has existing relationships in place with a full range of retailers and manufacturers that already implement this program model in other utility service territories.
- Memorandum of Understanding (MOUs) will be signed with the retailer/manufacturer partners that will detail the participation requirements including eligible products, incentive levels and stores.
- Development and placement of Point-of-Purchase (POP) material that serve to market the program to customers at retail. The POP highlights the energy and non-energy (e.g. financial and environmental) benefits of purchasing CFLs and LEDs. POP includes:
 - Banners and signs
 - Table top displays
 - Tear sheets describing the program
 - Stickers and aisle violators
- Training of retail sales associates – EMI program representatives will train retail sales associates on the program and help them develop answers to customers questions on the benefits of energy efficient lighting products as well as guide them on choosing the correct product to ensure customer satisfaction
- Maintenance of POP – due to the nature of the retail business, product on shelves constantly shift, EMI program representatives will ensure that correct pricing is displayed for eligible products and that POP is correctly placed for program attribution

In-Store Coupon

For small and independent businesses (for example Ace Hardware, Do it Best, True Value) including those in more rural areas that do not have the capacity to participate in markdown transactions, EMI proposes an instant coupon. Program representatives will conduct in-person visits to recruit these retailers at which point they will provide them with packets that describe program participation requirements. Customers who purchase energy efficient lighting products at these locations will be able to fill out a simple coupon that will be instantly redeemed at the register. The retailer will batch and send these coupons to EMI for payment.

Community-Based Bulb Distributions (Food Banks)

Community-based CFL distributions have been a very successful component of similar programs and EMI plans to incorporate it into the Residential Lighting program. EMI proposes to donate ENERGY STAR CFLs to Feeding America affiliates and their network of local food pantries. Mississippi Food Network, a Feeding America affiliate will serve as a distribution center - receiving the CFLs from the manufacturer, providing temporary storage, and allocating CFLs to the targeted food pantries. Each food pantry will then distribute a specified number of CFLs in food distribution packages. This program component has proven to be a successful way for other utility program sponsors to engage low-income and hard-to-reach customers that typically may not participate in traditional retail based CFL incentive programs. Beyond food bank distribution EMI may also be targeting stores like Dollar General that generally serve low-income communities to achieve participation amongst low-income customers.

The expected initial incentive by bulb type is provided in the table below. Discussion of the changing technologies and standards is found in section 3.1.1.

Table 2: Expected Average Incentive for Lighting Products

Product	Average Incentive
Standard CFL	\$1.15
Specialty CFL	\$1.50
Standard LED	\$4-\$5
Specialty LED	\$6
Community-based CFL distribution	\$1.77*

**While the community-based CFL distribution incentive provides an average, this final value will be determined based on the bulk purchasing power of EMI. These CFLs will be provided to the community members at no extra cost, thus the incentive will be the full cost of the bulb.*

2.1.6. (g.) Program Timeline

The Residential Lighting Program will run for the duration of the program cycle (2014-2016). The timeline to have the program active at retail is provided below, based upon months after commission approval:

Lighting	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Finalize Implementation Plan						
Field Staff Hiring and Training						
Retail Lighting Program Launch						
Reporting Activities						

2.1.7. (h.) Over-subscription Plan

EMI is confident that oversubscription to the program will not be an issue. Part of the incentive design strategy serves to establish budgetary limits for each industry partner. The level of funding agreed upon is recorded in a Goal Tracker as the “not-to-exceed” amount. As sales occur and the POS data is reported, the information is recorded in the Goal Tracker and monitored against the funding limits. As funding nears exhaustion, the incentive strategy will allow the program to avoid disruptive stop-start cycles by taking one of two actions:

1. Funding can be added to the memorandum of understanding with the program partner, allowing sales at the given incentive levels to continue with a higher Not to Exceed amount
2. Incentives on products that are over-performing can be decreased to slow sales

This flexibility in the incentive strategy allows the program to adapt to the market specific to its service territory in real time. At the same time, the constant monitoring of data received on a regular basis allows EMI to manage the sales to the allocated budget.

2.1.8. (i. and j.) Estimated Savings and Costs

Residential Lighting	2014	2015	2016	Total	Cost/kWH	% of Total
Annual MWh Savings	6,359	18,208	17,908	42,475		
Annual MW Savings	6.98	19.98	19.65	46.616		
Participants	7,403	21,194	20,830	49,426		
Low Income	3%	5%	5%	4.7%		
Total Program Costs	\$707,979	\$1,261,143	\$1,215,010	\$3,184,131	\$0.075	

2.2. Residential HVAC Equipment and Tune-up Program

2.2.1. (a.) General Description of the Program and the Services to Be Provided

The Residential HVAC Equipment and Tune-up Program will provide customer incentives for eligible high-efficiency prescriptive HVAC equipment and A/C tune-ups. This program is relatively quick and simple to implement and provides an opportunity to address the largest energy usages in most homes (heating and cooling). To facilitate a rapid launch in 2014, EMI will initially begin the program with a relatively short list of HVAC products with incentives available to all EMI customers. In addition, a focus will be placed on low-income customers by offering low-cost/no-cost tune-ups of existing A/C and heat pump systems to those qualifying customers.

The proposed list of initial HVAC technologies for 2014 includes:

- Central Air Conditioning (CAC) units, minimum 14.5 SEER;
- Heat Pumps, minimum 14.5 SEER; and
- Ductless Mini-split Air Conditioning units, minimum 16 SEER

It is expected that the federal minimum efficiency standard will increase to 14 SEER, effective January 1, 2015. At that point, EMI anticipates that the program's minimum efficiencies may increase to 16 SEER for CAC and heat pumps, and to 17 SEER for ductless mini-split systems.

The 2014 minimum efficiency standards for unitary CACs, heat pumps, and ductless mini-splits will be consistent with ENERGY STAR® specifications, which will allow contractors to leverage the widespread consumer recognition of the ENERGY STAR® brand in their sales and marketing efforts. While it is unknown at this time how ENERGY STAR® will respond to the new 14 SEER minimum set for 2015, it is reasonable to assume that it will be raised to 16 SEER and that the program minimums will remain consistent with ENERGY STAR in 2015 and 2016.

Key program-specific elements may include:

- An aggressive HVAC contractor recruitment and training campaign designed to:
 - Maximize the number of participating local contractors who will sell and install the program's products within the EMI service territory
 - Develop a smaller network of participating Tune-Up Contractors who will perform an enhanced tune-up protocol
- An ongoing contractor account management strategy designed to help ensure that all participating contractors meet their program commitments, for both system installations and tune-ups of existing systems; and
- A cost-effective marketing and communications campaign to educate EMI's residential customers on the benefits of HVAC efficiency improvements and to leverage the rebate as a "pull" strategy to stimulate demand for these systems.

2.2.2. (b.) Target Customer Population Addressed by the Program

The product technologies within the program will target local homebuilders, homeowners and owners of residential rental properties (single-family and duplexes) within the EMI service territory. The implementation plan will include strategies to make the program available to residential customers throughout the EMI service territory. The program will deliver a mixture of installations of new central air conditioning systems, heat pumps and ductless mini-split systems for all EMI customers and tune-ups of existing equipment (at a low-cost or no cost for low-income customers). EMI expects to maximize the tune-up portion of the program, as this set of energy efficiency services is a simple and effective offering especially in serving EMI's low-income customers.

2.2.3. (c.) Specific Program Objectives

The primary objectives for the Residential HVAC Equipment and Tune-up Program are:

- Educate customers on the benefits of high efficiency HVAC equipment and encourage customers to make the most efficient use of energy by tuning up their A/C systems for optimal performance.
- Greater energy savings for EMI customers
- Job creation and workforce development

These primary objectives are further described below.

Consumer Education

Most consumers lack information about HVAC in general, leading them to view HVAC products and services as a "commodity" that can be provided by any licensed HVAC contractor. They may assume that equipment is installed and serviced according to best practices, and therefore tend to shop for the lowest initial price rather than consider the long-term cost of ownership and operation. Through program incentives, contractor training, and customer education, EMI customers will have the opportunity to improve the energy efficiency of their HVAC systems.

Energy Savings for Customers

The program offers EMI customers an opportunity to improve the highest energy usage area of their homes by promoting the sale and installation of high-efficiency technologies. Further, the program will promote tune-ups of existing central A/C and heat pump units among all of EMI's customers. EMI will offer a subsidized tune-up to EMI's low-income customers providing a simple and straight forward energy savings service.

Job Creation and Workforce Development

The tune-up portion of the program will offer HVAC business owners with a qualified network of technicians the opportunity to expand their business base, increase their workforce, and improve their customer service. Tune-up contractors selected for the program will be required to commit to an increase in their current service call volume, which should result in a need to hire and train additional technicians.

The HVAC product technologies included in the program typically represent higher-margin sales for most contractors, relative to standard efficiency units. Participating contractors who actively engage in the program will have an opportunity to increase their overall sales revenue, most notably through increased sales of ductless mini-split systems. At the very least, this increased sales volume may potentially result in added job stability for existing sales and installation staff, and can lead to the addition of sales and installation jobs for contractors who aggressively leverage the program.

2.2.4. (d.) EM&V Procedures and Activities

To provide a clear and transparent EM&V plan for the Residential HVAC Equipment and Tune-up Program, the plan is broken out into the following:

- A description of the level of rigor involved
- An outline of suggested key researchable issues
- A description of the methodologies and procedures expected to be employed in conducting the process and impact evaluation, including data gathering, sampling and analysis methods
- A description of the data and information likely to be needed from key stakeholders

Assigned Rigor Level	Where warranted, IPMVP Option A will be assigned. Option A calls for engineering calculations using historical data (no spot or short-term measurement will be applied).
Key Researchable Issues	<ul style="list-style-type: none"> • What are the verified energy (kWh) and demand (kW) savings from this program? What is the verification rate for program-provided technologies? • How effective is the program in promoting energy efficiency retrofit and upgrade projects? Is the cash incentive effective for program performance toward targets? • What are customers' perceptions of specific program services, including the information received and incentive? What are service providers' perceptions of program interventions targeted to them? • Is the program operating efficiently, with appropriate program and representative support? • How effective are program-supported service providers in delivering program savings to customers? How satisfied are customers with their services? What changes are warranted?
Impact Evaluation Approach	<p>Deemed savings may be applied for all program technologies.</p> <p>Review tracking system. Review the tracking system and verify program inputs from hard copy program materials to identify any input/ tracking system issues.</p> <p>Verify technologies: Telephone follow-up surveys as a part of the process evaluation will verify program participation and equipment installation, and obtain pre-installation baseline data, such as the characteristics of previously installed equipment and hours of use. Regularly verify deemed savings.</p> <p>Engineering review: Conduct a desk review of a sample of 2015 program participants by reviewing energy assessment reports and other data.</p>

Process Evaluation Approach	<p>The process evaluation may include an evaluation of the customer outreach and recruitment effort.</p> <p>Program staff interviews: We may conduct in-depth interviews to understand program operations, key researchable issues, and receive documentation.</p> <p>Participant customer phone interviews: Gather information regarding the effectiveness of program outreach, feedback on program procedures and operations and satisfaction with a sample of 2015 program participants.</p> <p>Nonparticipant customer interviews (optional): Collect information from a random sample of program nonparticipants to assess awareness of programs, reasons for nonparticipation, etc.</p> <p>Participating contractor interviews: Gather process-related data from a sample of participating contractors to identify their role in customer participation, assess participating contractor understanding of and support for the program, and gather baseline equipment and market effects of the program for impact evaluation.</p> <p>Benchmarking research: Includes internet research of similar programs to compare program progress and identify best practices.</p>
Data/Information Likely Needed from Program Stakeholders	<ul style="list-style-type: none"> • Program background materials, marketing materials, and existing process flow • Tracking systems data • Engineering models • Energy consumption (billing) data

2.2.5. (e.) Anticipated Implementation Barriers and How They Will Be Addressed

There are several common implementation barriers seen among Residential HVAC and Tune-up programs. EMI carefully considered strategies to address these barriers in developing the program design. The table below provides the anticipated barriers as well as strategies proposed for each.

Anticipated Implementation Barriers for HVAC/Tune-up	Strategies to Address Barriers
Contractors who don't know how to effectively "upsell" to high-efficiency systems	<ul style="list-style-type: none"> • Provide contractors with sales training, including access to ENERGY STAR® materials • Solicit distributor support to reinforce sales training strategies • Provide ongoing account management to contractors
Contractors whose business model involves high volume of lower-end standard efficiency systems	<ul style="list-style-type: none"> • Provide contractors with sales training • Provide ongoing account management to contractors
Contractor resistance to paperwork and/or administrative procedures	<ul style="list-style-type: none"> • Provide contractors with program training

Contractors who are reluctant to adopt a more stringent tune-up protocol than the one they currently use	<ul style="list-style-type: none"> • Provide ongoing account management to contractors • Target a select group of qualified tune-up contractors through a structured RFP process • Conduct intensive tune-up technical training for participating contractors' technicians (both classroom and in-field training) • Conduct in-field QA/QC on all tune-up contractors • Provide ongoing account management to contractors
Consumers who lack specific knowledge of the benefits of high-efficiency systems	<ul style="list-style-type: none"> • Program-specific marketing/informational content and materials, to be distributed via EMI channels and provided to contractors for individual distribution to customers
Consumers who focus on first-cost only, not considering total operating costs over the life of the system	<ul style="list-style-type: none"> • Program-specific marketing/informational content and materials, to be distributed via EMI channels and provided to contractors for individual distribution to customers
Consumers will initially be unaware of the available EMI incentive opportunities	<ul style="list-style-type: none"> • Program-specific marketing/informational content and materials, to be distributed via EMI channels and provided to contractors for individual distribution to customers • Program offerings will be cross-promoted via the Residential Audit/Direct Install Program

2.2.6. (f.) Proposed Customer Incentive Strategy

EMI proposes the following customer incentive structure for the program technologies and services.

Proposed Technologies and Incentive Levels for 2014

Technology	Efficiency Level (SEER)	Incentive
Residential Central Air Conditioner	14.5	\$300
Residential Air Source Heat Pump	14.5	\$325
Residential Ductless Mini-Split System	16	\$150
Residential Ductless Mini-Split System	17	\$300
Central A/C & Heat Pump Tune-Up	N/A	\$75*

Proposed Technologies and Incentive Levels for 2015 - 2016

Technology	Efficiency Level (SEER)	Incentive
Residential Central Air Conditioner	16	\$325
Residential Air Source Heat Pump	16	\$350
Residential Ductless Mini-Split System	17	\$150
Residential Ductless Mini-Split System	18	\$300
Central A/C & Heat Pump Tune-Up	N/A	\$75*

*Offered at low cost/no cost for customers qualifying as low-income

2.2.7. (g.) Program Timeline

The Residential HVAC Equipment and Tune-up Program will run for the duration of the program cycle (2014-2016). The timeline to have the program active in the market is provided below, based upon months after commission approval:

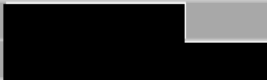
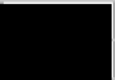
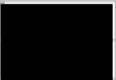
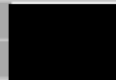
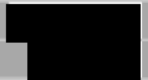


HVAC & Tune-up	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Finalize Implementation Plan						
Trade Ally Outreach						
Program Launch						
Reporting Activities						

2.2.8. (h.) Over-subscription Plan

One of the benefits of engaging HVAC contractors as program partners is having the ability to provide them with program updates as needed. A key task will be to keep the participating contractors informed about the remaining funding available throughout the year. EMI will continually monitor program participation and progress toward spending the available incentive budget. EMI may undertake one or a combination of the following approaches to managing oversubscription:

- Keep the program open under the same terms and conditions, and provide additional funding and/or transfer unused funding if available from other programs
- Put applicants on a waiting list and carry over their applications until the following program year
- Establish a reservation system early in the year wherein an incentive budget is reserved for each of the major participating contractors, including a reserve and allocation for minor contractors. Milestones are established for use of the incentives by each contractor, and if contractors are not hitting their milestones, incentives are reallocated to other contractors.
- Establish an on-line real-time reservation system for contractors to verify incentive availability
- Throttle back marketing and sales activities
- Increase the minimum qualifying efficiency standards or Increase program technical requirements (such as requiring Manual J sizing calculations and/or a specific “Quality Install” protocol), and
- Issue a notice that the program will be suspended as of a certain date and that additional applications may not be accepted until the program reopens the following year.

2.2.9. (i. and j.) Estimated Savings and Costs

Residential HVAC	2014	2015	2016	Total	Cost/kWH	% of Total
Annual MWh Savings	1,064	5,317	5,414	11,795		
Annual MW Savings	0.55	2.73	2.78	6.057		
Participants	1,908	9,372	9,512	20,791		
Low Income	40%	40%	40%	40%		
						
Total Program Costs	\$557,609	\$1,114,360	\$1,092,925	\$2,764,895	\$0.234	

2.3. Residential Audit and Direct Install Program

2.3.1. (a.) General Description of the Program and the Services to Be Provided

The Residential Energy Audit and Direct Install Program (Quick Home Energy Checkup Program or “QHEC”) includes both educational and direct installation components. The primary focus of a Quick Home Energy Checkup is to educate EMI residential customers about energy efficiency opportunities that exist in their homes, provide them with information about programs available to address those opportunities, and introduce the customer to energy efficiency products. EMI will use Building Performance Institute (BPI)-certified Building Analyst Professionals to conduct detailed walk-through visual inspections of customers’ homes and provide energy savings information directly to the customer. Each visit will include the installation of low-cost, direct install energy savings technologies (e.g., CFLs, faucet aerators, efficient-flow showerheads) that immediately reduce the consumption of energy in the customers’ homes. The Building Analyst Professional (technician) will enter the home’s data into a tablet (e.g., iPad) during the visit, review the results and recommendations with the customer, and produce a report that identifies energy savings opportunities including a summary of technologies installed and recommendations for future actions (e.g., other rebates offered, energy savings tips).

The QHEC Program will help EMI customers manage their energy consumption, while also cost-effectively achieving EMI’s energy savings goals. EMI intends for the QHEC Program to help create jobs and develop a local workforce that is able to meet demand throughout EMI’s entire service territory, while at the same time increase customer satisfaction. Further, EMI will focus particular attention to addressing the energy efficiency needs of low-income customers through the QHEC Program. Each low-income participant will also be offered low-cost/no-cost A/C or Heat Pump tune-up through the HVAC Tune-Up Program to provide additional energy savings and benefit. The incentive dollars used to provide tune-ups for low-income customers, as well savings realized from the tune-ups, will be credited towards the HVAC Tune-up Program.

2.3.2. (b.) Target Customer Population Addressed by the Program

EMI recognizes that all residential customers contribute to the cost recovery associated with the program, whether they live in single-family residences, multifamily apartments, or manufactured housing. EMI wants to ensure that those customers most in need are provided an opportunity to participate in the QHEC Program, and will target those EMI customers that live below the poverty rate. EMI Low Income Home Energy Assistance Program (LIHEAP) and Power to Care customers will be a key target population. EMI will also actively market the QHEC Program in manufactured housing, multifamily properties, and census blocks that have a high proportion of low-income customers.

2.3.3. (c.) Specific Program Objectives

The primary objectives for the QHEC Program are:

- Identify and achieve energy savings during home energy audit visit;
- Provide energy efficiency education for EMI customers;
- Motivate the customer to participate in other energy efficiency opportunities through other EMI program offerings and rebates (e.g., HVAC, retail lighting);
- Build the EMI market for energy audit and energy efficiency products and services, while creating jobs to deliver those services; and

- Encourage low-income customer participation.

The primary objective and approach to achieving these objectives are further described below.

Energy Savings during the Home Energy Audit Visit

With approximately 22% of EMI's customer base having an income below the Federal Poverty level, many people do not have the time, knowledge, or budget to install energy efficiency technologies, even when those technologies will provide benefits to them immediately. This program will allow customers to achieve immediate energy efficiency improvements in their home. After a QHEC is completed, the technician will install up to 12 compact fluorescent lights. For those customers with electric domestic hot water heating, up to two high-efficiency showerheads, one kitchen aerator, and two bathroom aerators will also be provided. Through the installation of direct install products (DIPs), EMI customers will realize immediate energy savings.

Energy Efficiency Education and Gateway to other EMI Programs

The in-home portion of the QHEC Program will be a carefully scripted and choreographed sequence of events:

- An initial conversation about EMI and the Program, the customer's expectations, and what they should anticipate during the consultation. Energy usage and building science can be somewhat overwhelming topics for a typical energy customer and technicians will be trained to balance and deliver this information in a thorough but understandable manner.
- A walk-through inspection (inside and outside) of the customer's home and the collection of the necessary data. The customer will be invited to participate in the walk-through, and educated as opportunities are discovered.
- The installation of the DIPs, including customer education regarding proper usage and maintenance.
- Delivery of the QHEC report (printed by the consultant on a mobile printer) and a "kitchen table" discussion of each section of the report, including "savings created today," clarifications, and next steps.
- Any request for action by the customer, including referring the customer to other EMI energy efficiency programs.
- The delivery of "friend referral cards" and a "How did we do" email survey for the customer to complete.
- A "thank you," an invitation to contact the technician or EMI, answers to any further questions, and a "goodbye."

A checkup report will be left with then customer that incorporates easy to understand information and educates the customer about their home's energy efficiency. The report consists of:

- A disaggregation of the customer's annual energy usage
- A listing of the DIPs installed, including an estimate of the annual bill savings over the lifetime of each product
- An identification of areas of improvement and recommended energy-efficient technologies,
- A summary of all savings opportunities, and
- Contact information for the technician, the QHEC Program, and for EMI's energy efficiency programs generally.

Job Creation and Workforce Development

The QHEC Program provides an excellent opportunity for EMI to help build the market for energy efficiency services and “building science” skills for various trades. With this in mind, EMI plans to maximize the use of local subcontractors to deliver QHECs to customers. Subcontractors will be selected based on their geographical location, ability to meet production goals, number of (or ability to hire) BPI Building Analyst (BA) certified field technicians, and ability to meet the high level of customer service EMI expects.

EMI will foster training and workforce development through strong collaboration with community colleges by reviewing, integrating, and supplementing curriculums to develop building science skills and energy education. Further, EMI is committed to supporting the placement of skilled labor and certified building analyst professionals in jobs to support program delivery.

EMI’s approach to recruiting and training trade allies (such as home performance contractors or other building technicians) follows successful quick-start approaches seen across the nation. EMI expects to hire two to five subcontractors, with strong consideration for minority/women owned business enterprises, depending on the geographical coverage necessary, to perform the QHECs and DIPs. This approach enables:

- Broad geographic coverage
- Rapid ramp-up
- Diversity of the risk associated with a single contractor
- Diversity of thinking and best practices
- Workforce flexibility and surge capacity; and
- Local workforce development and training

Encourage Low-Income Customer Participation

Low-income customers face some of the strongest barriers to energy efficiency investments in their home. Many customers may lack the knowledge or disposable income to invest in energy efficiency. Customers in multifamily buildings experience what is often called the “principal-agent” (or split incentive) barrier: the tenant pays the energy bills but has limited options for “permanent” energy efficiency improvements because they do not own the rental unit. Since the owner does not pay the energy bills, there is little incentive for him/her to make energy efficiency improvements.

Expanding a residential direct installation program to encompass multifamily and manufactured housing helps ensure that all customers of EMI have an equal opportunity to participate in the program and have energy-efficient products installed at no-cost. Actual use of these products will provide first-hand experience for customers on how these products save energy and money while enhancing comfort in the home. The technician will provide education about other EMI programs and low-cost/no-cost ways to save energy. For low income customers, the technician will offer the customer an air conditioner or heat pump tune-up (and coordinate with for additional opportunities through the Residential HVAC program).

2.3.4. (d.) EM&V Procedures and Activities

To provide a clear and transparent EM&V plan for the Residential Audit and Direct Install Program, the plan is broken out into the following:

- A description of the level of rigor involved

- An outline of suggested key researchable issues
- A description of the methodologies and procedures expected to be employed in conducting the process and impact evaluation, including data gathering, sampling and analysis methods
- A description of the data and information likely to be needed from key stakeholders

Assigned Rigor Level	The level of rigor need to evaluate this program will depend largely on the types of technologies that were installed as a result of the audits.
Key Researchable Issues	<ul style="list-style-type: none"> • Were the financial incentives appropriate for meeting program goals? • Was the program being run efficiently and effectively, and consistent with the design intent? • Was the staffing sufficient and the organization and structure of staff, including contractor staff, appropriate to meet program goals? • What was the level of customer satisfaction with the program? • Were marketing plans being implemented as designed, are they having the expected outcome, and how are customers and other market entities responding to them? • Were the appropriate tools developed and functioning properly and effectively to serve management and implementation needs (e.g., databases, screening tools, analysis tools)?
Impact Evaluation Approach	<p>Deemed savings may be applied for all program technologies.</p> <p>Review tracking system. Review the tracking system and verify program inputs from hard copy program materials to identify any input/ tracking system issues.</p> <p>Verify technologies: Collect information from a random sample of 2015 program participants, and verify savings.</p> <p>Engineering review: A review of the savings calculations may be conducted to ensure accurate calculations along with a tracking system and data review.</p>
Process Evaluation Approach	<p>Program staff interviews: In-depth interviews may be conducted in order to understand program operations, key researchable issues, and receive documentation.</p> <p>Participant customer interviews: We may conduct interviews with a random sample of the population of 2015 program participants stratified by technology, if possible.</p> <p>Nonparticipant customer interviews (optional): Collect information from a random sample of program nonparticipants to assess awareness of programs, reasons for nonparticipation, etc.</p> <p>Participating contractor interviews: Gather process-related data from a sample of participating contractors to identify their role in customer participation, and assess participating contractor understanding of and support for the program.</p> <p>Benchmarking research: Includes research of similar programs to compare program progress and identify best practices.</p>

Data/Information Likely Needed from Program Stakeholders

- Program background materials, marketing materials, and existing process flow maps
- Project application files
- Database of customer contact information
- All project and savings information

2.3.5. (e.) Anticipated Implementation Barriers and How They Will Be Addressed

There are several common implementation barriers seen among Residential Audit and Direct Install programs. EMI carefully considered strategies to address these barriers in developing the program design. The table below provides the anticipated barriers as well as strategies proposed for each.

Anticipated Implementation Barriers for Residential Audits	Strategies to Address Barriers
Education of customers - "Why do I need this?"	<ul style="list-style-type: none"> • Provide contractors with sales training • Marketing pieces speak to the value of the service - both in educational aspects as well as products installed at no-cost • Leave behind report emphasizes the value of the program
Keeping customer engaged during visit	<ul style="list-style-type: none"> • Contractors trained on inviting customer to walk through home with Technician during QHEC • Kitchen table review of report emphasizes findings during QHEC
Ensuring various EMI customer demographics are served	<ul style="list-style-type: none"> • Targets set to ensure that every EMI customer is served • Contractor and program outreach will be designed to reach various demographics • Various communities/areas will be targeted to ensure underserved demographics included
Getting customer to follow up with other EMI programs	<ul style="list-style-type: none"> • Leave behind report will list other programs and opportunities for saving • Follow up emails invite customer to continue to improve the safety, efficiency, and comfort of their home

2.3.6. (f.) Proposed Customer Incentives and Incentive Strategy

Proposed customer incentives include both an educational component and energy efficiency products installed for the customer. The educational component consists of the QHEC which identifies areas where the customer can save energy and provides the customer additional information on other EMI energy efficiency programs. In addition to a QHEC, the customer will have energy efficiency products installed in their residence at no charge to the customer. These products will include various types of CFLs, and for those customers with electric water heating, high-efficiency showerheads, faucet aerators, and kitchen aerators. The QHEC service is performed for no additional cost to the customer, regardless of the income level of the customer. EMI pays the contractor for the QHEC service, the cost of products installed, and the installation cost per technology. EMI will issue an RFP for standardized products and pricing for all contractors along with specific guidelines for delivery. This will eliminate any possibility of “double dipping” or the contractors purchasing products at local retailers that may be incentivized through other EMI programs. The following products will be included in the Residential Audit and Direct Install Program:

Proposed Products for 2014

Product
QHEC delivery to Single-family Dwellings
QHEC delivery to Multifamily Dwelling
13-watt CFL
18-watt CFL
23-watt CFL
16-watt R30 CFL
23-watt R40 CFL
9-watt mini globe CFL
9-watt candelabra CFL
Low-flow showerhead, 1.5 GPM
Low-flow showerhead (1.5 handheld)
Kitchen faucet aerator
Bath faucet aerator

2.3.7. (g.) Program Timeline

The QHEC Program will run for the duration of the program cycle (2014-2016). The timeline to have the program active in the market is provided below, based upon months after commission approval:

Audit & Direct Install	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Finalize Implementation Plan						
Contractor Recruitment						
Develop Web site, resources, scheduler, and materials; Contractor and Call Center Training						
Program Launch						

2.3.8. (h.) Over-subscription Plan

EMI realizes that the management of program savings and program updates is a critical function. And while the QHEC Program is not subject to unpredictable demand to quite the same degree as other program designs, it still warrants very careful monitoring and management.

EMI may use a Scheduler Tool to monitor customer requests as they come in. If there is a spike in customer interest, EMI may scale back customer outreach to slow the rate of customer sign-ups as indicated below.

It is also intuitive that hot weather results in an increased demand for QHECs, even in the absence of heavy marketing. Customers are more aware of low-cost and no-cost ways to increase their comfort during hot periods. Also, high bill complaints typically escalate in hot periods and referrals increases significantly.

Therefore, to manage subscription rates for the QHEC Program and keep program managers informed, EMI may:

- Establish participation targets at the beginning of each program year
- Include a variance analysis in each program status update, indicating the degree to which actual applications deviate from the targets
- Identify specific triggers for corrective countermeasures, which indicate a need to either increase or decrease participation
- Specify those actions that may be available as countermeasures, potentially including:
 - Increasing/decreasing marketing spend
 - Using/eliminating mass media (such as television and radio)
 - Advancing/deferring other planned marketing activities
 - Changing marketing channels/messages
 - Changing the policy of marketing QHECs to call center customers
 - Queuing customers for ensuing program years

- Set policies which define the circumstances under which each countermeasure should be considered, along with appropriate notification and approval levels,
- Set schedules for the implementation and reassessment of approved countermeasures.

2.3.9. (i. and j.) Estimated Savings and Costs

Audit and Direct Install	2014	2015	2016	Total	Cost/kWH	% of Total
Annual MWh Savings	704	2,344	2,344	5,393		
Annual MW Savings	0.59	1.96	1.96	4.497		
Participants	1,076	3,581	3,581	8,238		
Low Income	35%	35%	35%	35%		
██████████	██████████	██████████	██████████	██████████	██████████	██████████
██████████	██████████	██████████	██████████	██████████	██████████	██████████
Total Program Costs	\$439,080	\$600,366	\$557,011	\$1,596,457	\$0.296	

2.4. Commercial, Industrial, and Governmental Program

2.4.1. (a.) General Description of the Program and the Services to Be Provided

The Commercial, Industrial and Governmental (CIG) Program is modeled after other successful CIG programs implemented throughout the country. The program provides a simple solution for EMI's customers interested in purchasing efficient technologies that can produce verifiable savings. For this filing, EMI refers to the Prescriptive and Custom components of the Quick Start Portfolio collectively, since the architecture of both program models are complementary and can effectively be presented to the market as a comprehensive program offering. Overall, the structure of the Prescriptive and Custom programs are similar, with a few distinct subtleties highlighted below.

The program offer financial incentives and technical assistance to all eligible CIG customers seeking to improve the efficiency of existing facilities, and provides resources for higher-efficiency new equipment purchases, facility modernization, and industrial process improvements. The program provides a simple solution for EMI's CIG customers interested in purchasing efficient electric technologies, such as: lighting and controls, HVAC equipment, variable frequency drives (VFD's), commercial kitchen and refrigeration equipment, and site-specific custom technologies. The technical assistance funds can be used for CIG customers to identify energy savings opportunities as they move forward in the program.

For maximum flexibility, the program consists of both Prescriptive and Custom components: The two components of the overall CIG program offering will be:

1. **CIG Prescriptive:** The prescriptive component offers a simplified method to make efficient choices on pre-defined energy efficiency technologies, without requiring complex analysis or participation rules. The prescriptive program covers the majority of common energy saving technologies across most customers and end-use markets and through its ease of use and understanding provides an effective way to reach mid-market I&C customers who tend to be underserved.
2. **CIG Custom:** The custom component offers a more comprehensive approach for energy efficiency technologies that go beyond the prescriptive offerings. Custom incentives make it possible to include more complex and site-specific technologies and projects. Any technology that would improve a customer's electric energy efficiency is eligible provided that it is cost effective.

EMI will support CIG customers and their trade allies in many aspects of the decision and application process. While some customers may choose not to use a trade ally at all, for those who do, EMI will facilitate the communication between motivated customers and trade allies who can address the customer's needs. Through this Program, C&I customers will have access to a variety of resources, including a qualified trade ally and equipment supply network, educational tools that help to identify and prioritize cost-effective savings opportunities, and access to program experts that will offer guidance throughout the participation process.

2.4.2. (b.) Target Customer Population Addressed by the Program

The program is targeted to all of EMI's 70,000 commercial, industrial and governmental (otherwise referred to as CIG) customers and targets all cost effective energy efficiency retrofit and time dependent opportunities. Local and state governments will be a key focus of the program. Government agencies are in a unique position to take advantage of EMI's program offerings as they are often required to "do more with less." EMI's programs can help these organizations with their goals. Generally speaking, there is a common theme amongst the various local and county government facility managers and common sustainability goals including:

- Reduced energy consumption to address tightened utility budgets and individual mandates
- Overall improvement in building operations and occupant comfort
- Standardization of equipment (i.e. lamps, ballasts, motors)
- Using incentive funds to address “wish list” and deferred maintenance items.

Since these strategies will often require the use of capital funds to purchase replacement equipment (or influence equipment specifications in new construction), it is important to be involved in the decision-making process for each of these entities.

The program will rely to a great extent on trade allies—for example, lighting contractors, HVAC contractors, energy service companies, architects, engineers and distributors—to bring customers to the Program. These trade allies typically have established customer relationships and otherwise are motivated to identify and bring projects to the programs. Key implementation tasks in all program elements will be recruiting trade allies, providing necessary program training and working with trade allies to drive program participation. To build up a strategic network that will cultivate trade allies, EMI will also reach out to its contacts at local chapters of key industry associations, such as the Illuminating Engineering Society, BOMA, USGBC, and the Association of Energy Engineers. Based on existing relationships, we also anticipate leveraging support from local associations such as: General Contractors of Mississippi, Mississippi Retail & Grocers Association (MSRGA), Mississippi School Boards Association, Mississippi Association of School Administrators (MASA), Mississippi Hospitality & Restaurant Association.

2.4.3. (c.) Specific Program Objectives

As described earlier, EMI’s objective is to ensure that all customers receive the assistance they require to make decisions to install cost-effective energy efficiency technologies. This target, however, is just one of several ambitions of the Program including:

- Deliver significant energy savings for EMI commercial, industrial and governmental customers;
- Increase the end-use efficiency of existing CIG customers;
- Promote a market transformation pertaining to energy efficiency through education and mentoring on strategies and technologies;
- Stimulate Mississippi’s economic development by providing opportunities for contractors and equipment suppliers through an increase in energy efficiency projects;
- Outreach to minority, women-owned and small business contractors to engage them in energy related projects with customers.

To achieve the primary objective of reducing the energy consumption of EMI customers, an impactful presence in the field must be prevalent. Though energy efficiency is a logical investment, it still requires upfront dollars that a business simply may not have. To ease the way for those companies to start down the path toward more efficient operations, EMI’s Account Managers will focus efforts to educate customers on the benefits of whole building improvements and introduce energy efficiency by highlighting investments relative to their facility and end use.

The program offers customers and trade allies flexible and streamlined options for participation. The approach is flexible in that EMI will use many different communication vehicles for marketing, outreach and information dissemination. Support will be provided to customers and trade allies in the decision and installation process. EMI will help customers assess their energy efficiency options and risks and help them sell the purchase decision within their organizations. Key elements of the program implementation strategy include:

- Trade ally recruitment and training: Trade allies (installation contractors) will be a key delivery mechanism for this program element as they promote participation and available incentives to their customers. Trade allies will be recruited to participate in training sessions to inform them about program incentives, participation processes, and requirements. Trade allies actively participating in the Program will receive regular communications about program activities and changes to ensure they are informed and engaged participants.
- Customer recruitment: Customers will be recruited by program communication and outreach activities, EMI customer representative referrals and trade allies.
- Technical assistance: The program will provide guidance regarding program offerings and participation processes to customers and trade allies as needed to minimize confusion and barriers to participation

As mentioned above, it is one of EMI's key objectives to provide an economic stimulus to our customers and trade allies, which is typically an inherent result of comparable incentive programs. For customers, projects become affordable and realistic when a program is in place to help fund upgrades that ultimately lead to enhanced building operation and better facility design. Once these projects are implemented, customers will ultimately see a decrease on their utility bill due to energy savings, and that ultimately puts dollars back into their pocket that would otherwise be considered overhead. For trade allies, this uptick in customer participation in retrofit, upgrade and remodeling opportunities results in the need for someone to install the equipment. Many contractors are often small businesses themselves, and serving as EMI trade allies allows them to present the potential of reduced upfront costs to their customers, which can lead to more customer execution of equipment purchases and installation. Additionally, as contractors increase their business, they will in turn need to purchase more supplies, such as bulbs, fixtures, HVAC units, from their suppliers and distributors, thereby increasing these business's sales as well.

EMI believes that trade allies often have a need to increase their staff due to the increase in projects that become available as a direct result of the availability of incentives to help fund them. Either field staff or administrative positions are developed, creating an expansion of career opportunities in the market. As new staff enter the energy efficiency field, they develop a new skill set regarding project management, energy efficiency technology implementation, and incentive processing. Ultimately, a new economic stimulus through these new skill sets and employment opportunities is created.

EMI will foster training and workforce development through strong collaboration with community colleges by reviewing, integrating, and supplementing curriculums to develop building science skills and energy education. Further, EMI is committed to assisting in placement of skilled labor and certified building analyst professionals in jobs to support program delivery.

2.4.4. (d.) EM&V Procedures and Activities

To provide a clear and transparent EM&V plan for the Commercial, Industrial, and Governmental Program, the plan is broken out into the following:

- A description of the level of rigor involved
- An outline of suggested key researchable issues
- A description of the methodologies and procedures expected to be employed in conducting the process and impact evaluation, including data gathering, sampling and analysis methods
- A description of the data and information likely to be needed from key stakeholders

EM&V Protocols for Prescriptive Segment

Assigned Rigor Level	EMI may apply deemed savings values that will be followed for this prescriptive technologies program along with the specified recommended M&V approaches for different technologies, which follow IPMVP Option A Level of Rigor.
Key Researchable Issues	<ul style="list-style-type: none"> • Is the program meeting specified goals and targets for participation, and energy and demand savings? • Are the qualifying equipment efficiency levels and rebates set at appropriate levels (for future looking, to minimize free ridership and maximize net savings)? • Is the trade ally recruitment and training adequate for developing sufficient qualified participating installation contractors? • Is the program marketing effective in recruiting customers and contractors, and in leveraging existing market channels? • Has the technical assistance been effective in removing barriers to participation? • Are the technologies comprehensive (e.g., do they address quality installations of equipment to ensure savings)? • How efficient is the application process? • Are the contractors performing as expected in selling and installing equipment? • How do the results compare to other Commercial/Industrial prescriptive programs around the country (benchmarking)?
Impact Evaluation Approach	<p>Deemed savings may be applied for all program technologies.</p> <p>Review tracking system. Review the tracking system and verify program inputs from hard copy program materials to identify any input/ tracking system issues.</p> <p>Verify technologies: Confirm reported technologies were installed using the process evaluation surveys and the sample of M&V site visits, and verify savings.</p> <p>Engineering review and calculations: Conduct desk audits for a sample of projects. The number of desk audits may depend on whether or not errors are noted.</p>
Process Evaluation Approach	<p>Program staff interviews: Conduct in-depth interviews of program and implementation staff.</p> <p>Participant customer interviews: Program participants will be interviewed for each of the types of technologies. We will select a sample to contact from the 2015 program participants.</p> <p>Nonparticipating customer interviews (optional): Collect information from a random sample of program nonparticipants to assess awareness of programs, reasons for nonparticipation, etc.</p> <p>Market channel actor interviews: Market actors (HVAC, lighting, compressed air, and food service equipment contractors) will be interviewed to determine awareness of program and market effects including changes in efficient manufacturing, pricing, and sales.</p> <p>Benchmarking research: Includes internet research of similar programs to compare program progress and identify best practices.</p>
Data/Information Likely Needed from Program Stakeholders	<ul style="list-style-type: none"> • Program background materials, marketing materials, and existing process flow maps • Project application files and supporting project information • Database of customer contact information, all project and savings information

EM&V Protocols for Custom Segment

Assigned Rigor Level	M&V Protocols that are based on IPMVP will be considered. The choice of the four Options A, B, C, or D, will depend on the type of project including the size, the number and types of end-use technologies, and the data already available from installed metering or EMS and from the technical assistance or feasibility studies. EMI will employ the appropriate level of rigor for the project type.
Key Researchable Issues	<ul style="list-style-type: none"> • Is the program meeting specified goals and targets for participation, and energy and demand savings? • Is the program marketing and information adequate for developing good qualified projects? • Are the program requirements, incentive structure, application process, and other requirements clear to the trade allies and customers? • Is the energy consultant/engineer providing adequate and accurate information to rate projects? • Is the program effective in identifying and recruiting trade allies (engineering firms and energy service providers) to the program? • Are the customers satisfied with the performance of the trade allies including the implementation of the project, technical assistance, the contracting process and financial benefits? • Are the right customers being targeted with the program? • How effective are the administrative processes in gathering critical data to support calculated savings and the M&V process (applications, engineering studies, database)? • Are the energy audits, training in best practices, and engineering studies effective in getting customers to participate in the program and change their behavior to minimize wasted energy? • How do the results compare to other Large Commercial/Industrial Custom programs around the country?
Impact Evaluation Approach	<p>Deemed and custom savings calculations may be applied for program technologies.</p> <p>Review tracking system. Review the tracking system and verify program inputs from hard copy program materials to identify any input/ tracking system issues.</p> <p>Engineering review and calculations: For a sample of projects, review engineering assumptions, calculations, models used to estimate equipment/technology savings, technical feasibility studies, the results of the pre-and-post Energy Performance Rating, QA/QC results, and project verification results.</p>
Process Evaluation Approach	<p>Program staff interviews: Conduct in-depth interviews of program and implementation staff.</p> <p>Participant customer surveys: Program participants to include all key-decision-makers, for each of the types of technologies, will survey from 2015 participants.</p> <p>Nonparticipating customer interviews (optional): Collect information from a random sample of program nonparticipants to assess awareness of programs, reasons for nonparticipation, etc.</p> <p>Market actor survey: Engineering firms, energy service companies, and equipment installers will be interviewed to determine awareness of program and market effects including changes in efficient manufacturing, pricing, and sales.</p> <p>Benchmarking research: Includes internet research of similar programs to compare program progress and identify best practices.</p>
Data/Information Likely Needed from Program Stakeholders	<ul style="list-style-type: none"> • Program background materials, marketing materials, and existing process flow maps • Project application files and supporting project information • Database of customer contact information, all project and savings information

2.4.5. (e.) Anticipated Implementation Barriers and How They Will Be Addressed

There are several common implementation barriers seen among CIG programs. EMI’s program design has been developed to address these barriers. The table below provides the anticipated barriers as well as strategies proposed for each.

Anticipated Implementation Barriers for CIG	Strategies to Address Barriers
Lack of Information	<p>The program offers education on investments in energy efficiency such as:</p> <ul style="list-style-type: none"> • simple paybacks • return on investments • ancillary benefits of energy efficiency by describing potential technologies and their features and benefits.
Lack of Delivery Infrastructure	<ul style="list-style-type: none"> • The program motivates vendors and trade allies to educate customers • Program marketing material and collateral available to trade allies to distribute to their customers • Educate vendors how to incorporate energy efficiency into sales presentations to help grow customers' bottom line.
Lack of Capital	<ul style="list-style-type: none"> • The program offsets a portion of costs associated with installing high efficiency equipment • Investments become more attractive by reducing simple payback.
Participation seems complex	<ul style="list-style-type: none"> • Prescriptive program offers a simplified method through pre-defined energy efficiency technologies • No complex analysis or participation rules required
Incentive may not offered for more complex or site-specific technologies	<ul style="list-style-type: none"> • Custom program offers a comprehensive approach that goes beyond prescriptive technologies • Custom program promotes technologies that would otherwise be dismissed under traditional prescriptive programs • Encourages customers to think "outside the box" in their energy management strategies

2.4.6. (f.) Proposed Customer Incentives and Incentive Strategy

The program will include flexible incentives that will accommodate a wide range of CIG customer needs, with technologies that can be bundled so customers experience the program as being designed “just for them.” The two components of the overall CIG Program offering will be:

- Prescriptive, offering pre-specified dollar incentives on individual efficient technologies. Incentives and claimed savings are based on pre-defined technologies and calculation methods that offer a simplified method to make choices regarding engagement in potential energy-savings technologies. Equipment must meet specified minimum energy performance requirements.
- Custom, offering individually calculated incentives based on the kW and kWh saved by the individual customer’s project, again with equipment required to meet specified minimum energy performance standards.

Table 3 below represents a sample of typical prescriptive technologies offered through comparable CIG programs. Incentive levels will be determined and listed on prescriptive application forms along with technical requirements and any associated listings to find eligible equipment. For example, programs typically require “high performance” T8 lamps and ballasts to be eligible for incentives. A link to the Consortium of Energy Efficiency’s website will be listed on the application form so that customers and their trade allies can easily access a list of eligible models that will qualify. Incentives are typically designed to cover approximately 50% of the incremental cost of the technology.

Table 3: Typical Prescriptive Technologies offered in CIG Programs

Technologies
T12 to T8 retrofits
Permanent de-lamping of existing fixtures with new lamps and ballasts
New fluorescent fixture replacing T12 or standard T8 fixtures
New Fluorescent T5HO/HPT8 High bay Fixture
LED exit signs.
Occupancy sensors and Daylight Harvesting controls
Interior LED replacement lamps
MR 16 integral LED replacement lamps.
Exterior LED lighting for parking garages, parking lots, other exterior applications
LED reach-in freezer or cooler lighting.
Occupancy sensors: Reach-in freezer or cooler LED lighting.
Unitary HVAC Equipment – rooftop units, heat pumps
HVAC Water Chillers - Single Unit Installations
Vending Machine Controls.
Anti-Sweat Heat Controls
Anti-Sweat Heat Controls: Freezer Doors.
Coolers and Freezers
Vending Machine Controller
Commercial Cooking Equipment

2.4.7. (g.) Program Timeline

The program will run for the duration of the program cycle (2014-2016). The timeline to have the program active in the market is provided below, based upon months after commission approval:

CIG Program	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Finalize Implementation Plan						
Trainings and Trade Ally Outreach						
Configure Customer Facing Materials and Call Center Training						
Program Launch						

2.4.8. (h.) Over-subscription Plan

EMI's use and maintenance of a database and reporting system will be the cornerstone for persistent monitoring of program status and subscription. The reporting environment will serve as a key management tool that will allow Program Managers and staff to manage the program and projects in nearly real time. These tools will give us the advantage of pinpointing under-participating or trends towards oversubscription of technologies, customer types, Account Manager territories, or regions before they adversely affect the energy savings goals or budgets. These tools will allow us to shift staff and resources where needed, anticipate surges in projects, monitor project progress before they become overdue, send reminders to customers and contractors, etc. Data are captured and recorded at the technology level; rolled up through the customer, application, program, and portfolio; and linked to geographic data based on the customer's premise. These analytic capabilities will allow EMI to proactively identify not just indicators of depleting incentive funds, but also application lags and holes in our market penetration.

In response to a potential oversubscription of the program, EMI may take steps to moderate incentive payouts and participation. EMI may observe any large customers that seem to be dominating incentive budgets and impose caps on the amount of incentive dollars they can receive on a per project or annual basis.

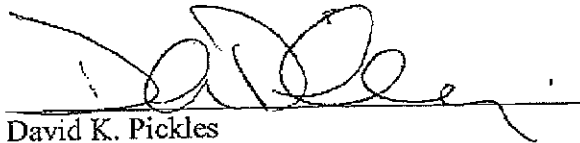
2.4.9. (i. and j.) Estimated Savings and Costs

CIG Prescriptive	2014	2015	2016	Total	Cost/kWH	% of Total
Annual MWh Savings	2,417	6,042	6,055	14,514		
Annual MW Savings	0.37	0.90	0.92	2.183		
Participants	97	241	244	581		
Governmental	20%	20%	20%	20%		
Total Program Costs	\$872,773	\$1,360,989	\$1,345,512	\$3,579,273	\$0.247	

CIG Custom	2014	2015	2016	Total	Cost/kWH	% of Total
Annual MWh Savings	276	2,759	3,403	6,438		
Annual MW Savings	0.03	0.33	0.41	0.773		
Participants	2	21	26	50		
Governmental	20%	20%	20%	20%		
Total Program Costs	\$277,450	\$538,052	\$559,551	\$1,375,053	\$0.214	

STATE OF Texas
COUNTY OF Tarrant

Personally appeared before me, the undersigned authority in and for the jurisdiction aforesaid, David Keith Pickles, who after being by me first duly sworn stated that he is Senior Vice President of ICF International, and that as such is fully authorized to make this affidavit; and further stated that the matters and things contained in the foregoing Quick Start Energy Efficiency Portfolio Plan of Entergy Mississippi, Inc., are true, accurate, and correct as therein set forth to the best of his knowledge, information, and belief.



David K. Pickles
Senior Vice President
ICF International

SWORN TO AND SUBSCRIBED before me, this the 9 day of January, 2014.



NOTARY PUBLIC

My Commission Expires:

10-26-16

