

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: EO-2014-0030

PROPOSED
ENERGY
EFFICIENCY
PORTFOLIO

THE EMPIRE DISTRICT ELECTRIC COMPANY

Joplin, Missouri
October 2013

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This report contains additional support for The Empire District Electric Company's ("Empire" or "Company") Application initiating the implementation of a specific portfolio of energy efficiency programs under 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094 (the Missouri Energy Efficiency Investment Act ("MEEIA") and the rules of the Missouri Public Service Commission ("Commission")), and includes Empire's requested recovery mechanism, the Demand-Side Programs Investment Mechanism ("DSIM"). The Company is seeking approval to implement a separate DSIM to recover the costs and incentives associated with the proposed MEEIA energy efficiency portfolio and the ability to account for costs as set out in the DSIM as described below. The tariff outlining the recovery mechanism and the actual implementation plan are attached and marked as Appendix C and Appendix E, respectively. The MEEIA Demand-Side Program tariffs, which address the proposed demand-side management ("DSM") programs, are also included as Appendix D. This report will also:

- present an overview of Empire's proposal and requests;
- provide a brief discussion of the historical events that have led to this filing;
- provide a compliance roadmap for this filing, including the requirements of the Commission's MEEIA rules;
- outline the overall DSIM being requested in this filing; and
- provide good cause for any variances that are being requested.

The report covers the following topics:

- A. OVERVIEW
- B. MEEIA POLICY
- C. BACKGROUND OF DEMAND-SIDE PROGRAMS
- D. EMPIRE'S DEMAND-SIDE PROGRAMS
- E. STATUS OF EM&V REPORTS FOR DSM PROGRAMS
- F. EMPIRE'S REQUEST
- G. COST RECOVERY AND INCENTIVE MECHANISM
- H. VARIANCES
- I. MEEIA FILING REQUIREMENTS
- J. SUMMARY OF PROPOSED PROGRAMS
- K. COST RECOVERY FROM COMPANY'S PERSPECTIVE

OVERVIEW

The MEEIA law and the Commission rules were established to address revenue recovery of demand-side programs and to provide guiding principles for filing new DSM programs and DSM program reporting. This is Empire's second MEEIA filing. Empire agreed to make this MEEIA filing as part of a settlement reached in Empire's 2010 Integrated Resource Plan ("IRP") proceeding before the Commission, Case No. EO-2011-0066 (See Appendix K). Empire withdrew its first MEEIA filing (Case No. EO-2012-0206) in July of 2012 in accordance with an agreement reached by the parties to the case. Excerpts from the Agreement reached in EO-2011-0066 that pertain to this Empire MEEIA filing are as follows:

Paragraph 7:

b. As specified in Paragraph 9, Empire agrees to work with the Stakeholder Advisory Group to request the Commission's approval to implement new demand-side programs, including the demand-side programs in Empire's preferred resource plan in the September 2010 filing, after the effective date of the Commission's MEEIA rules;

Paragraph 9:

As referenced in 7.b., the Signatories agree to the following provisions with respect to planning and implementation of new demand-side programs during the period between the effective date of this Agreement and Empire's anticipated April 2013 filing. This period will be referred to as the "interim period":

*a. New demand-side programs whose implementation was described during the interim period in the September 2010 filing include **(1) an ENERGY STAR® washing machine rebate program, (2) a Residential High Efficiency Lighting program, and (3) a Home Energy Comparison Reports program.***

*b. As referenced in Paragraph 7.b., to augment the demand-side resource portfolio contained in the resource acquisition strategy in the September 2010 filing, three additional demand-side programs will be considered. These programs are a **refrigerator recycling program, an ENERGY STAR® refrigerator rebate program and a pilot ENERGY STAR® dehumidifier rebate program.***

*c. Empire will, unless advised otherwise by at least two non-utility members of the Stakeholder Advisory Group, request the Commission's approval of: **1) the demand side programs identified in Paragraphs 9.a and 9.b., except as described in part 9.d., and 2) a demand-side programs investment mechanism ("DSIM") within nine months of the effective date of the Commission's MEEIA rules during the interim period.***

d. If the revised ENERGY STAR® dehumidifier standard has not been published at the time specified in Paragraph 9.c., then the pilot ENERGY STAR® dehumidifier rebate program shall be considered at a later time than the other demand-side programs listed in Paragraphs 9.a. and 9.b. Empire, in consultation with the Stakeholder Advisory Group, shall consider this program for implementation during the interim period, within three months following the publication by the U.S. Environmental Protection Agency's revised standard for ENERGY STAR® dehumidifiers.

e. Alternative Demand-Side Programs Cost Recovery Mechanism: In the event the cost recovery provisions of the MEEIA rules are not in effect, the parties will support a reasonable request for an Accounting Authority Order authorizing the Company to accumulate the costs associated with new demand-side programs in regulatory asset accounts as the program(s) costs are incurred, unless a mechanism concerning these costs is established in File No.ER-2011-0004. The amortization of these deferred program costs and the recovery of these deferred program costs from the Company's customers, if not later addressed by a DSIM, shall be addressed in the Company's subsequent electric general rate proceeding.

Paragraph 10:

a. Prior to requesting Commission approval of new demand-side programs, including new demand-side programs identified in Paragraph 9.a. and 9.b., Empire agrees to confer with the Stakeholder Advisory Group concerning program participation levels, design and implementation at least quarterly.

Paragraph 11:

The Signatories agree to the following provisions with respect to Empire's existing demand-side programs. Empire shall consult with the Stakeholder Advisory Group concerning the future of Empire's existing portfolio of energy efficiency programs under MEEIA or the Commission's MEEIA rules. If Empire determines, in consultation with the Stakeholder Advisory Group, that a continuation or modification of any or all of the existing programs is warranted, Empire shall file for approval of the such programs and for approval of a DSIM under the MEEIA or the Commission's MEEIA rules within nine (9) months of the effective date of the Commission's MEEIA rules. Empire agrees to work with the Stakeholders Advisory Group and a demand-side consultant, if necessary, to analyze the levels of participation and the incentive levels for each of Empire's existing demand-side programs and develop a plan that will maximize the savings attributable to each program while maintaining Total Resource Cost levels of 1.0 or greater.

Empire's MEEIA filing includes aspects of all of Empire's existing energy efficiency programs and the following new programs:

1. Residential Efficient Lighting/Appliance Program
2. Appliance Recycling Program
3. School Energy Education Program
4. Small Business Lighting Program

The proposed MEEIA DSM programs include the new energy efficiency programs that Empire agreed to analyze and seek Commission approval to implement in the Agreement reached by the parties in EO-2011-0066, with the exception of a Home Comparison program. Each of the MEEIA DSM programs being proposed were analyzed in Empire's recent IRP, EO-2013-0547, and included as part of Empire's preferred long-range plan.

In addition to seeking Commission approval of the new energy efficiency programs and Commission approval for a continuation of several of its existing energy efficiency programs, as part of its MEEIA proposal, Empire is requesting the implementation of a new DSM cost recovery mechanism under the Commission's rules 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094 ("MEEIA Rules"). The MEEIA Rules became effective on May 31, 2011, and were the result of legislation passed in 2009 ("Senate Bill 376") identified as the Missouri Energy Efficiency Investment Act of 2009 (Section 393.1075, RSMo Cum. Supp. 2010). Empire's request to implement new

DSM programs and a new DSM cost recovery mechanism is in compliance with the Agreement Empire reached in its 2010 IRP proceeding, Case No. EO-2011-0066.

Under Empire's proposed recovery mechanism or DSIM, Empire will begin charging its Missouri customers for the recovery of DSM program costs, a portion of the overall annual benefits of the program to be shared with customers, and eventually an incentive to the Company for implementation of energy efficiency programs, if specified performance parameters are met. It is estimated that the recovery of this energy efficiency revenue requirement will represent an annual increase of nearly \$6.7 million for Empire's Missouri customers starting in 2014. As proposed, the DSIM will be separately identified on the bill for all Missouri customer classes on an equal cents per kWh basis except for lighting classes and customers who have declined to participate or "opted out" of the Missouri DSM process. It is estimated that the DSIM rate in 2014 will be \$0.00185 per kWh, and represent an increase from 1.56 percent to 2.38 percent in overall revenue from the Company's Missouri residential, commercial and industrial customers beginning with the effective date of the DSIM.

Empire is requesting a new and separate MEEIA recovery mechanism because the process used to recover Empire's existing DSM program costs is inadequate and does not treat demand-side programs and generation resources on an equal basis and is detrimental to Empire's financial profile.

The Commission's MEEIA Rules address many of the issues and concerns that are not part of the prior DSM cost recovery process. For example, Empire's current cost recovery process is tied directly to the filing of a general rate case and has only addressed Empire's DSM program costs, not Empire's overall DSM revenue requirement. The current DSM recovery mechanism is devoid of any meaningful incentives and ignores the negative impact Empire's DSM programs have on earnings due to the suppression of ongoing sales volumes and the related shortfall in fixed cost recovery. In addition, the current DSM cost recovery process does not provide Empire with a reasonable opportunity to earn a return on the capital deployed on energy efficiency and demand-side programs.

Empire's DSIM proposal is a fair recovery mechanism which: 1) places demand-side activities on a more level playing field with supply-side resources, 2) provides more timely, accurate and complete cost recovery for the Company, and 3) is not detrimental to the Company's financial profile.

The DSM cost recovery process currently in place for Empire only provides for partial DSM program cost recovery and conflicts with the Commission's MEEIA Rules. Empire's current cost recovery process spreads DSM cost recovery out over at least six (6) years and only begins after a rate case has concluded with a final Commission order authorizing new tariffs, which include a DSM charge that remains fixed until the conclusion of Empire's next general rate case. Currently, Empire's DSM expenses between rate cases are accumulated in a deferred account and amortized over six years. The net DSM investment account(s) and amortization between rate cases are not recovered from Missouri customers until they can be considered in the next rate case. Under the current recovery mechanism, inadequate consideration is given to the delay in cost recovery or the impact implementation of these DSM programs has on the Company and its shareholders. The current DSM cost recovery process authorized for Empire does not equitably balance the risks of customers and shareholders in its structure. In addition, the current process does

not adequately support Empire's ability to raise capital and continue to pursue these programs. The MEEIA legislation was based upon the principle that greater implementation of cost-effective demand-side programs will be beneficial to all Missourians. The ultimate goal of demand-side programs is to reduce customer usage and demand in a cost effective manner. However, under Empire's current Missouri recovery process, the reduction in kilowatt-hour and kilowatt sales are ignored even though these sales reductions produce less revenue for the Company and create a significant disincentive for Empire to invest in energy efficiency programs. The Commission's MEEIA rules recognize this dilemma and include provisions designed to align the interests of electric service providers and their customers in pursuing demand-side programs.

MEEIA POLICY

As set out in the law, there are three public policy goals:

1. Encourage more efficient energy use and cost-effective demand-side programs;
2. Create a balance in the interests of utilities and their customers;
3. Treat demand-side investments and traditional investments in supply and delivery infrastructure equally and allow recovery of all reasonable and prudent costs of delivering cost-effective demand-side programs and, in doing so:
 - a. Provide timely cost recovery for utilities;
 - b. Ensure that utility financial incentives are aligned with helping customers use energy more efficiently and in a manner that sustains or enhances utility customers' incentives to use energy more efficiently; and
 - c. Provide timely earnings opportunities associated with cost-effective, measurable and verifiable efficiency savings.

BACKGROUND OF DEMAND-SIDE PROGRAMS

Empire's existing DSM programs are the result of an agreement reached in Empire's Regulatory Plan proceeding, Case No. EO-2005-0263. The existing programs and costs have also been part of Empire's last five (5) general rate cases in Missouri, Case Nos. ER-2006-0315, ER-2008-0093, ER-2010-0130, ER-2011-0004 and ER-2012-0345. A brief description of Empire's existing DSM programs follows:

Low Income Weatherization Program

Qualifying lower income customers receive help in managing their energy use and bills through Empire's Low Income Weatherization and High Efficiency Program. The program works directly with local Community Action Agencies (CAA) that already provide weatherization services to low income customers through the DOE and other state agencies. Empire provides supplemental funds to the CAAs to cover the cost of weatherization measures. This program is administered by the CAAs and follows the protocol under current federal and state guidelines. Empire funds focus on measures that reduce electricity usage such as electric heat, air conditioning,

refrigeration, lighting, etc. The CAAs have discretion to use the funds as they wish for weatherization and heating equipment. In addition, they may also spend up to \$200 towards the purchase of an ENERGY STAR® rated refrigerator and \$100 towards the purchase of ENERGY STAR® rated CFLs and lighting fixtures.

This program helps low income customers reduce their energy costs at no cost to the customer. The CAAs offer a cost effective implementation capability, which allows most of the funds allocated to this program to go directly to the purchase and installation of energy efficiency measures.

Low Income New Home

The Low Income New Home Program is a partnership between Empire and non-profit organizations, including Habitat for Humanity and local government community development organizations, to achieve energy efficient affordable new housing for the low income community. Incentives are available for high efficiency central air conditioners (“CAC”), heat pumps and refrigerators. Financial incentives are set at the full incremental cost for CAC and heat pumps up to a maximum of \$400. A \$200 incentive is available towards the purchase of an ENERGY STAR® rated refrigerator. Finally, up to \$100 will be available towards the purchase of ENERGY STAR® rated lighting fixtures. Empire also offers an incentive to improvements in building shell.

Home Performance with Energy Star®

Home Performance with ENERGY STAR® is a program designed to enhance the traditional existing home energy audit service. This program uses the ENERGY STAR® brand to help encourage and facilitate whole-house energy improvements to existing housing. This program focuses on the private-sector contractors and service professionals who currently work on existing homes – replacing HVAC systems, adding insulation, installing new windows, etc. In addition, Empire arranges to have a random sample of jobs inspected.

The program strives to provide homeowners with consumer education, value and a whole-house approach. A participating BPI-certified Home Performance contractor can identify and fix a variety of home energy efficiency problems, including poor insulation, air leaks through cracks and gaps, and ineffective moisture control by first performing a home assessment. Upon completion of the inspection, the contractor provides an itemized cost estimate for each suggested improvement.

While the program goal is saving energy, its market-based approach and message focus on addressing a variety of customer needs – comfort, energy savings, durability, and health & safety. It also encourages the development of a skilled and available contractor/provider infrastructure that has an economic self-interest in providing and promoting comprehensive, building science-based, retrofit services.

Residential Lighting

Empire's current residential lighting program ended on December 31, 2010. Empire's residential Lighting program has evolved over the years it has been in place. When first implemented it was held in conjunction with the EPA and DOE national "ENERGY STAR Change a Light, Change the World" campaign, and the Midwest Energy Efficiency Alliance (MEEA) and the Missouri Department of Natural Resources helped administer the program. Empire partnered with MEEA to offer this program into its service territory. When MEEA stopped sponsoring the Lighting campaign, Empire distributed CFL's directly to customers in parts of its service area that had not been able to effectively participate in the prior years' Change a Light program.

Residential High Efficiency CAC Program

The Residential High Efficiency Central Air Conditioning ("CAC") Program encourages residential customers to purchase and install energy-efficient central air conditioning and heat pumps by providing financial incentives to offset a portion of the equipment's higher initial cost. The program's long-range goal is to encourage contractors/distributors to use energy efficiency as a marketing tool, thereby stocking and selling more efficient units and moving the entire CAC and heat pump market toward greater energy efficiency.

Customer incentives are set at the following levels:

SEER of 15 to 15.9- \$400
 SEER of 16 to 16.9- \$450
 SEER of 17 or higher-\$500

Empire's CAC program also offers training in Manual J calculations and System Charging and Airflow for HVAC contractors. Manual J is the industry standard residential load calculation method. The training offers step-by-step examples of properly sizing equipment and also addresses principles of heat transfer. The training teaches HVAC contractors to accurately perform and document cooling load calculations and reduces over-sizing. The System Charging and Airflow course addresses airflow and charging procedures and standards and includes hands-on training in the use of testing equipment. Once enough contractors have undergone this training, Empire may mandate that these calculations take place in order to qualify for the incentive.

Energy Star® New Homes

ENERGY STAR® Homes use proven technologies and advanced building practices that ensure a new home is as energy efficient as possible. ENERGY STAR® labeled homes must pass a stringent evaluation, including computer-based energy analysis, inspections, and certification testing. Only those homes that meet high efficiency standards are certified as ENERGY STAR®. ENERGY STAR® Homes use tried and true technologies that have been employed in hundreds of thousands of homes across the U.S. Homes built to these standards provide greater comfort, are quieter and have healthier indoor air quality.

ENERGY STAR® Labeled Homes are “performance tested.” While builders may claim to build “energy efficient” homes, only builders of ENERGY STAR® labeled homes can prove it. Homes in this program are required to be tested by a Home Energy Rater to ensure that they perform to the ENERGY STAR® Labeled Homes Program standard.

Energy savings on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air, conditioning systems, tight duct systems, and upgraded water-heating equipment.

The ENERGY STAR® New Homes program will offer technical services and financial incentives to builders while marketing the homes’ benefits to buyers. Currently, the program offers an incentive of up to \$400 to reduce the cost of a home energy audit and a builder incentive of \$800 for an ENERGY STAR qualified home.

Incentives are available to manufactured homes that are ENERGY STAR® compliant.

Commercial & Industrial Rebate Program

The Commercial and Industrial (“C&I”) Rebate program provides rebates to commercial & industrial customers that install, replace or retrofit qualifying electric savings measures including HVAC systems, motors, lighting, pumps, etc.

As part of this program, Empire rebates to customers to cover up to 50% of the cost of an energy audit. In order to receive the rebate, the customer must implement at least one of the audit recommendations that qualify for a rebate. The energy audit rebate is set at 50% of the audit cost up to \$300 for customers with facilities less than 25,000 square feet and up to \$500 for customers with facilities over 25,000 square feet. Energy audits must be performed by a certified (CEM, licensed PE or equivalent) commercial energy auditor. Customers with multiple buildings are eligible for multiple audit rebates.

A limited number of prescriptive rebates for lighting (e.g., fluorescent fixtures and controls, HID fixtures and controls), cooling (e.g., unitary A/C and split systems) and motors are available for small commercial customers. The existing C&I program is restricted to customers taking service under rate schedules CB, SH, GP, PFM or TEB.

Qualifying C&I customers, including those that qualify for prescriptive rebates, are eligible for custom rebates. The custom rebates are individually determined and analyzed to ensure that they pass the Societal Benefit/Cost Test (defined as a test result of 1.05 or higher).

Custom rebates are calculated as the lesser of the following:

- A buy down to a two-year payback
- 50% of the incremental cost
- 50% of lifecycle avoided demand and energy costs

One customer may submit multiple rebate applications for different measures. Each individual measure will be evaluated on its own merits. Similar measures that are proposed in different facilities or buildings will be evaluated separately. However, no customer, including those with multiple facilities or buildings, may receive more than \$20,000 in incentives for any program year.

Building Operator Certification Program

Empire offers this program to its commercial and industrial customers, with the exception of customers in the Large Power (LP) class, in collaboration with the Missouri Department of Natural Resources, Energy Center (MDNR-EC) and the Midwest Energy Efficiency Alliance (MEEA). The Building Operator Certification (BOC) Program is a professional development program in the energy and resource efficient operations of buildings. To receive certification an individual must attend a series of one to two-day classes in facility maintenance and operation and demonstrate competence in technical areas by completing course tests and projects.

There are two levels of certification: Level I - Building System Maintenance and Level II - Equipment Troubleshooting and Maintenance. Development support for BOC was originally provided by the Northwest Energy Efficiency Alliance (NEEC), a non-profit group of electric utilities, state governments, public interest groups, and industry representatives committed to promoting affordable, energy-efficient products and services. Today, the NEEC is leading efforts to make BOC a nationally recognized standard.

MDNR-EC is administering BOC for Empire. BOC courses have been made available to Empire's customers at various times since the program was first implemented.

The program is targeted towards customers with facilities that employ full-time building operators.

Interruptible Service Program

The Interruptible Service Rider IR Program is a partnership between businesses and Empire to assure that electric demand can be met on certain days during the summer and winter when customer demand for electricity is high. Under this tariff, there exists a provision for customers to receive credits for interruption of service. The credits offered vary according to the term of the individual customer interruptible contract. Customers who are eligible to participate in this voluntary program must have an amount of load available for interruption of at least two hundred (200) kilowatts and make this load available for interruption for up to eighty (80) hours per contract year. Customers who decide to participate in this program have the option of signing up for terms of one, three or five years.

Educational Program

Empire currently maintains on its website the Apogee HomeEnergy Suite and the Commercial Energy Suite. These suites are energy calculators and libraries that provide education to residential and commercial customers. Also included is an interactive virtual home to show key areas for energy efficiency improvements and a Kids Page which includes teacher lesson plans. Empire has been promoting the calculators and Kids Page to area schools.

General Project Management and Marketing

Empire has added and continues to refine the DSM program information on its website, develop brochures, train and add resources to its customer service operation, and undertake various initiatives with print, radio, and television media (news releases, news conferences, etc.).

Empire's proposed demand side programs are part of its plan to meet the electricity needs of its customers now and in the future. The DSM programs included in this MEEIA filing were analyzed in Empire's most recent Integrated Resource Plan filed with the Commission in July of 2013. The following table displays Empire's existing demand-side portfolio of programs and estimated savings for calendar year 2012.

Table of 2012 DSM Activity

Program	Est. Net kWh Savings	Est. Net KW Savings	Participation	Total Expenditures
Res. HE Lighting	-	-	-	-
Res. A/C Rebate	550,541	524	375	\$169,050
Energy Star New Homes	922,878	795	354	226,981
Home Perf.-Energy Star	210,000	182	175	71,122
Low Income New Homes	-	-	-	-
Low Income Weatherization	400,140	7	195	108,751
C&I Custom Rebate	3,899,969	4,097	47	414,350
C&I Prescriptive Rebate	449,045	266	24	93,745
BOC	-	-	-	22,675
Interruptible Service Rider	-	3,100	3	67,896
Admin & Evaluation				125,461
	6,432,572	8,971	1,173	\$1,300,032

Empire has proposed new tariffs for each of these existing DSM programs that are to be retained as part of the MEEIA program portfolio to transition them from the current DSM tariffs to new tariffs in compliance with the MEEIA requirements. Those tariffs are

attached as Appendix D to this report. In addition, Empire is requesting the approval of four (4) additional DSM programs as part of this MEEIA filing.

STATUS OF EM&V REPORTS FOR DSM PROGRAMS

Empire intends to retain an independent EM&V consultant and have an evaluation performed for each program at two-year intervals. The results of the EM&V will be used to help in directing any changes that need to be made and provide results to be used in the calculation of future DSIM revenue requirements. One of the goals of EM&V is to help improve program design and implementation processes in order to improve the effectiveness and operational efficiencies of the programs as well as to be used in the support recovery of the program. Through the process evaluations, the evaluation contractor documents program accomplishments, administrative processes, participant experiences, customer satisfaction and successes and failures. Process evaluation is designed to inform the program implementers, provide corrective guidance regarding program implementation and help to assess whether there is a continuing need for the programs. The results of the EM&V will also be used to measure the overall impact of the programs to ensure the planned levels are being reached and to determine the Company's actual incentive for recovery, if applicable.

EMPIRE'S REQUEST

As described in the Application, Empire is seeking Commission approval of the following:

(1) The Company is requesting approval to implement a separate DSIM to recover the revenue requirement associated with Empire's proposed MEEIA DSM program portfolio and the authority to account for costs as set out in the DSIM described below. The tariff outlining the recovery mechanism is attached to the report as Appendix C. The Company seeks to address the demand-side programs by implementing a comprehensive cost recovery approach which includes program costs, a portion of the overall annual benefits of the programs to be shared with customers, an incentive if specified program performance milestones are attained to the Company for actual program implementation and the eventual recovery of lost contribution to fixed cost due to the implementation of DSM programs, if applicable.

(2) The Company is requesting approval of the suite of demand-side programs, including all but one of the programs contemplated in the agreement reached in Empire's 2010 IRP proceeding, EO-2011-0066 (Appendix K). This report includes new DSM tariffs for those programs that are either currently in effect or modified as a result of the 2013 IRP analysis and the new demand-side programs that are contemplated to be approved in this filing. The cost recovery for all of Empire's Commission approved DSM programs in this MEEIA filing would take place under the new DSIM. The recovery of the DSM costs deferred under the existing DSM programs prior to the effective date of this MEEIA filing will continue to take place under the recovery mechanism that was approved as part of Empire's last rate case, ER-2012-0345, and these cost deferrals and the ultimate recovery of those costs would continue to be part of Empire's future rate cases.

PROPOSED DEMAND-SIDE PROGRAMS

A brief description of each of Empire's proposed DSM programs included in the

MEEIA filing follows:

Residential Lighting/Appliance Program

This program will take the place of a prior Empire lighting program that was discontinued in December of 2010. The screening and eventual implementation of lighting portion of the program was contemplated by the agreement between the parties in Empire's 2010 IRP. The program's primary objective is to secure energy savings by incentivizing the purchase of ENERGY STAR® qualified lighting and appliances. Instant rebates will be applied to CFLs and LEDs at the point-of-purchase, varying depending upon the type of lighting, manufacturer and the associated retail cost. Mail-in rebates will be available to customers that purchase efficient appliances, including:

- ENERGY STAR Indoor and Outdoor Fixtures
- Efficient Nightlight
- ENERGY STAR Dehumidifier
- ENERGY STAR Refrigerator
- ENERGY STAR 2-Speed Pool Pump

Empire plans to engage a third-party contractor to implement the program. The contractor will:

- Establish relationships with lighting manufacturers and retailers throughout the Empire service territory.
 - Process incentives.
 - Track program data.
 - Provide in-store promotional materials and retail sales staff training.
- Market the mail-in rebate program. . Program goals include:
- Help residential customers reduce their electricity bills.
 - Educate residential customers about the program and the benefits of efficient lighting and appliances.
 - Develop partnerships with retailers to market the program.
 - Demonstrate persistent energy savings.
 - Encourage energy saving behavior and awareness.

Appliance Recycling Program

This is a new program and one of the types of programs that Empire agreed to screen in the agreement reached in the 2010 Empire IRP. The program encourages residential customers to remove inefficient refrigerators and freezers from the electric system and dispose of them in an environmentally safe and responsible manner. The program will provide an incentive to customers that turn-in their old, inefficient refrigerator(s) or freezer(s). Customers are limited to 2 rebates per program year. The refrigerator or freezer must be in working condition, between 10 and 30 cubic feet in size and at least five years of age. The refrigerators and freezers will be picked-up at no cost to the customer.

Empire plans to select a third-party implementation contractor that specializes in appliance recycling and has access to a recycling facility. The implementation contractor will handle scheduling, appliance pickup, recycling and disposal, and incentive processing.

Empire will work with the implementation contractor to develop innovative and creative marketing strategies and materials. The program may be marketed through bill inserts, newspaper advertisements, community events, billboards, media and advertising in community newsletters.

Program goals include:

- Educate customers about the benefits of recycling their inefficient appliances.
- Reduce household and small commercial energy consumption.
- Influence consumer behavior by encouraging residential customers to avoid replacing their second refrigerator or freezer after it is recycled.
- Promote appliance recycling.

High Efficiency HVAC Program

The program objective is to encourage contractors to use energy efficiency as a marketing tool, stocking and selling more efficient HVAC units and moving the market toward greater efficiency.

Residential customers will be eligible to receive financial incentives for:

- Early retirement of heat pump systems in operable condition and at least 5 years of age.
- Purchase and installation of efficient central air conditioners, heat pumps, furnace fan motors, bathroom exhaust fans and programmable thermostats.

As planned, an implementation contractor will engage local HVAC contractors to participate and market the program, process rebates, provide program tracking and provide quality assurance/quality control.

Participating HVAC contractors must provide evidence of Air Conditioning Contractors of America (ACCA) Manual J training, the industry standard residential load calculation method. Empire offers free one-day training sessions on ACCA Manual J and Manual D at least twice a year in multiple cities across Empire's Missouri service territory.

The implementation contractor will develop partnerships with HVAC contractors through education and training seminars, presentations at Chamber of Commerce meetings, and other informational events. Additional marketing activities will include newspaper advertisements, email blasts and bill messaging. Program goals include:

- Educate customers about the benefits of installing high efficiency HVAC equipment.
- Develop partnerships with contractors to bring efficient systems to the market.
- Help customers reduce their electric bills.
- Build consumer confidence in the reliability of savings estimates through an educated and highly trained contract services team.

Whole House Efficiency Program

The purpose of the program is to encourage whole-house improvements to existing homes by enhancing home energy audits and promoting comprehensive retrofit services.

The program will consist of 2 Tiers:

Tier 1: Direct Install. A home energy audit will identify potential efficiency improvements. The program will offer the audit and installation of measures at no cost to

the customer. Measures included in the program: air sealing, faucet aerators, low-flow showerhead, water heater temperature setback, advanced power strip, water heater tank wrap, hot water pipe insulation and CFLs.

Tier 2: Insulation. Customers that have completed Tier 1 are eligible for incentives for the purchase and installation of attic insulation.

Empire plans to engage a contractor to implement the program. The contractor will

- Engage customers and schedule appointments
- Hire staff/engage local contractors to conduct audits and measure installations
- Process rebates
- Program tracking and quality assurance

Program goals include:

- Demonstrate persistent energy savings.
- Encourage energy saving behavior and whole house improvements.
- Help residential customers reduce their electricity bills.

The program will be marketed through direct outreach to customers, bill inserts, newspaper advertisements and email blasts as well as community events.

Tier 1 will be provided at no cost to the customer. Tier 2 incentive will be \$300.

Low Income Weatherization Program

The Low Income Weatherization Program supplements the federal Low Income Weatherization Assistance Program. The program reduces energy costs for eligible low income homeowners and renters through increased home efficiency, at no cost to the participant. Home efficiency is improved through the installation of energy saving measures, such as insulation, caulking, weather stripping and heating system repair or replacement.

Empire customers work with one of three Missouri Weatherization Agencies to participate in the program,

- Economic Security Corporation of Southwest Area
- Ozarks Area Community Action Corporation
- West Central Missouri Community Action Agency

The Missouri Weatherization Agencies offer a cost-effective implementation capability, which allows most of the funds allocated to this program to go directly to the purchase and installation of energy-efficiency equipment.

The Weatherization Agencies have the primary responsibility for promoting the program and providing the efficiency improvements. Empire supplements marketing efforts, working with other statewide program staff and utilities to promote the program through community events and organizations, including schools, churches, and nonprofit organizations within the service territory.

Low Income New Homes Program

Building off the Low Income Weatherization Program, Empire works with local non-profit organizations to encourage energy efficiency, affordable new housing for low

income customers. Financial incentives, not to exceed \$1,200 per home, are available for the following measures:

- Building Insulation, full incremental cost above the baseline.
 - Exterior wall insulation with an R value ≥ 19 .
 - Attic insulation with an R value ≥ 38 .
 - Floor insulation with an R value ≥ 19 .
- Central Air Conditioning, full incremental cost up to \$400 for a SEER ≥ 14 .
- Heat Pump, full incremental cost up to \$400. The incentive may not exceed the incentive for a similarly rated central air conditioning unit.
- Refrigerator, up to \$200 for an ENERGY STAR refrigerator.
- Lighting, up to \$100 for the installation of ENERGY STAR rated lighting fixtures.

Organizations must notify Empire of their intent to participate in the program. Upon acceptance, Empire holds the maximum available financing per home for up to six months, with payment occurring upon receipt and review of paid invoices. Empire currently plans to fund five homes in Missouri per year.

Empire promotes the program directly to local non-profit organizations that work with low income housing.

School Energy Education Program

As planned, the program offers a set of classroom activities and a kit of low-cost energy and water efficiency products to students within the Empire service territory. The program helps build awareness of energy conservation among children and can impact customers at all income levels. Teachers will receive education materials including lesson plans, program videos, classroom posters and supplemental activities.

Each student receives an Energy Education Kit, which includes:

- CFLs and Nightlight
- Natural Resources Fact Chart
- Digital Water / Air Thermometer
- FilterTone® Alarm
- Efficient Showerhead
- Toilet Leak Detector Tablets
- Flow Rate Test Bag
- Mini Tape Measure

Empire plans to engage a third-party implementation contractor to recruit and train teachers, track participation, and provide support to students and teachers.

Program goals include:

- Educate students about the benefits of efficiency and the opportunities to reduce energy consumption.
- Increase awareness of and participation in other Empire energy efficiency programs.
- Long-term energy savings through enhanced education and awareness of energy efficiency among students and parents.

The program will be marketed to schools officials including teachers, principals and school district personnel. Information on the benefits of this program will be explained teachers or principals prior to handing out the energy kits. Teachers and principals will also receive information on how to present these kits to students.

Small Business Lighting Program

The program targets non-residential customers with an average electric demand of less than 250 kW per year. The program offers customers a free lighting energy audit that includes information on potential energy savings and anticipated payback as well as incentives that cover up to 70 percent of the equipment and installation costs. Eligible measures include permanent interior lighting fixtures and ballasts, such as T5 lamps, LED exit signs, pulse-start metal halides and occupancy sensors.

Empire plans to select an implementation contractor that will provide the lighting audit and information on lighting incentives. Incentives will be assigned directly to the contractor, so that the value of utility incentives is reduced directly from the sale price of the project. As planned, the contractor will be responsible for:

- Marketing and promotional activities
- Screening eligible measures
- Selecting and managing lighting contractors
- Tracking program results

Program goals include:

- Effectively installing efficient equipment through the program.
- Educating commercial customers about the benefits of new energy efficient lighting technologies.
- Helping commercial customers reduce their electricity bills.
- Building consumer confidence in the reliability of savings estimates through an educated sales force and a highly tailored program approach.

As planned, the implementation contractor will contact business owners, operators, property owners and tenants as well as participate in trade association and business organization events.

C&I Energy Efficiency Rebate Program

The Commercial and Industrial Energy Efficiency Rebate Program provides incentives to lower the cost of identifying and purchasing energy efficient equipment for commercial or industrial facilities. The program consists of prescriptive rebates and custom rebates.

Prescriptive. Pre-qualified prescriptive rebates are available for new construction and retrofits. The rebated measures, including lighting, HVAC equipment, motors and variable frequency drives, are proven technologies that are readily available with known performance characteristics.

Custom. Equipment that does not qualify for a prescriptive rebate will be eligible for a custom rebate. Applications must be pre-approved by Empire before equipment is purchased and installed to ensure they produce a Societal Benefit-Cost Test of 1.05 or higher and have an incremental payback greater than two years.

Incentives are the lesser of the following:

- 50 percent of the incremental cost; or
- \$0.030 per kWh savings.

A \$20,000 incentive cap is imposed per facility per program year. However, if funds are still available in the last three months of the program year, the cap may be exceeded. Multiple rebate applications for different measures may be submitted.

All C&I customers are eligible to participate in this program. The same customer can participate in more than one measure in the same year, e.g., retrofit a lighting system and upgrade to a more efficient HVAC system.

The program will be marketed through partnerships with Empire trade allies as well as newspaper advertisements, email blasts or targeted mailings to customers and contractors, bill inserts, and advertising in HVAC trade publications.

Program goals include:

- Educate customers about the benefits of installing high efficiency equipment.
- Effectively install efficient equipment and systems through the Empire Program.
- Help commercial and industrial customers reduce their electricity bills

Building Operator Certification

The Building Operator Certification (BOC) Program is a training and certification program that educates facility managers and operators in the energy efficiency of their equipment and processes. The training includes approximately 80 hours of classroom and project work in building systems operation and maintenance. Each course in the series is completed in a one-day training session, except *BOC 103 – HVAC Systems and Controls*, a two-day course.

Empire offers incentives for Level 1 training, topics HVAC Systems and Controls, Efficient Lighting Fundamentals, Facility Electrical Systems, and Indoor Air Quality. To become certified, participants must pass an exam at the end of each day of training and complete assigned projects. Rebates of \$575, half of the training tuition, are provided to Empire participants that complete the certification process.

The program is administered by the Missouri Energy Center in partnership with the Midwest Energy Efficiency Alliance (MEEA). The program is targeted towards customers with facilities that employ full-time building operators.

Empire works with Missouri Energy Center and MEEA to promote and market the certification program. Marketing activities include targeted mailing to building operators and presentations at Chamber of Commerce meetings and trade conferences.

Program goals include:

- Educate building operators about the benefits of efficiency.
- Help commercial and industrial customers reduce their electricity bills.

Interruptible Service Rider

The Interruptible Service Rider Program is intended as a load shedding strategy to be used where system peak demand exceeds available capacity or extreme energy prices are expected. The program is designed to reduce customer load during peak periods, upon

SCHEDULE A

request by Empire. The rider is available to commercial and industrial customers with a minimum monthly billing demand of 200 kW and an anticipated minimum load curtailment capability of 200 kW. The program year runs from June 1 through May 31.

Customers voluntarily enter into a contract for a term of one to five years for a total level of interruptible capacity of no greater than 50 MW annually. The contract is automatically renewed for the term of equal length unless termination notice is given by the customer or Empire. The customer rate for service interruption varies according to the length of the contract. Curtailments are limited to ten per year, with a maximum interruption of eight hours per curtailment event.

Empire markets this program through partnerships with contractors and distributors of energy efficient systems and equipment. Other marketing includes newspaper advertisements or targeted mailings to customers and contractors, bill inserts and advertising in HVAC trade publications.

Program goals include:

- Education of non-residential customers about the benefits of reducing load during peak periods.
- Help commercial and industrial customers reduce their electricity bills.

The following tables provide a recap of the proposed programs and estimated savings for program year 1.

Program	TRC	Net Savings MWH	Net Savings MW	Participation	Total Budget
Residential Products	1.34	8,350	.76	251,395	\$906,092
Residential Recycling	1.05	434	.08	475	93,655
Res. High Efficiency HVAC	1.28	1,036	.73	1,630	561,960
Residential Whole House	1.31	1,696	.36	12,300	1,138,410
Low Income Weatherization	.79	771	.28	350	294,000
Low Income New Homes	.53	11	0	5	7,371
School Kits	1.13	292	.06	750	47,211
Small Business Lighting	1.05	2,598	.45	13,200	1,558,118
C&I Rebate-Custom	4.69	672	.12	30	44,352
C&I Rebate-Prescriptive	2.86	2,410	.41	7,086	231,007
Building Operator Certificate	1.39	262	.10	30	22,641
Interruptible Service Rider	20.79	81	2.73	5	17,640
Total		18,613	6.08		\$4,922,457

A more detailed explanation of the proposed programs is included in this report in Appendix E.

COST RECOVERY AND INCENTIVE MECHANISM

The proposed DSIM is applicable to all Missouri Retail Rate Schedules for the Company with the exception of Lighting Schedules and customers who opt out of the

requirements under the current Commission rules. Empire's proposed DSIM consists of up to four (4) components: a) DSM program costs, b) DSM shared benefits, c) DSM incentives and d) lost revenue. The DSIM being proposed will allow for recovery of all program costs, a portion of the annual customer benefits ("shared benefits") based on the actual level of program performance, the potential to earn a performance incentive based upon specific energy savings actually achieved versus target savings and lost revenues, if any. The DSIM rate will not be applied to customers qualified and approved to opt out of the programs under the Commission's MEEIA rules or the Company's lighting tariffs. At the current time several Missouri customers have declined to participate in Empire's DSM programs and have opted out under the Commission rules. These customers consume around 334,000 megawatt-hours of electricity each year or around eight (8) percent of Empire's annual Missouri sales.

The DSIM follows the basic structures laid out in the Commission's MEEIA rules. The DSIM is designed to recover the actual costs associated with the Company's Commission-approved DSM portfolio, including DSM program costs and shared benefits and ultimately a DSM incentive and lost revenue, if applicable. This revenue requirement will be recovered through a DSIM charge applied to each customers' bill on a kilowatt-hour basis (\$/kWh). The charges will be identified and shown as a separate line on the customer's bill and will be in addition to the separate DSM charge for Empire's current DSM programs.

The DSM program costs will include the actual incremental cost of program approval, planning, developing, implementing, monitoring, and evaluating demand-side programs. In addition, all costs incurred by or on behalf of the collaborative process, including but not limited to costs for incremental consultants, employees and administrative expenses, will be included in the program costs. General administrative costs will be included on the basis of the cost associated with each program. Other costs associated with DSM programs, including but not limited to costs of a market potential study and/or the Company's portion of a Missouri Technical Resource Manual, will also be included in the DSM program costs.

Empire's DSIM is designed to track the actual costs and shared benefits associated with each program on an annual (calendar year) basis and establish a regulatory asset, which is offset with the actual revenue recovered via the DSIM rider. Annually on May 1, Empire will true-up the DSIM Revenue Requirement that has been accumulated for the prior calendar year and revise the DSIM factor for current program year costs and shared benefits. For example, Empire expects to spend approximately \$5.0 million during the first year of full program operations. In addition to these direct costs, Empire would add a portion of shared benefits of \$1.6 million and estimated regulatory approval costs of \$198,000. Assuming a DSIM approval date of July 1, 2014, Empire would file for a DSIM revenue requirement of \$6.7 million that would be recovered concurrent with DSM MEEIA program approval over a 12-month period beginning July 1, 2014 and ending June 30, 2015, when the DSIM revenue requirement for the first MEEIA calendar program year would be trued up and the second year of the MEEIA program revenue requirement be taken into account to establish the new DSIM revenue requirement.

The Shared benefit component of the DSIM revenue requirement consists of forty-three percent (43%) of the net present value of the avoided costs associated with the actual measures installed during the first year of the three-year MEEIA DSM program cycle. The

initial calculation is based upon the expected program participation rates. This initial level of benefits is subject to be “trued-up” to actual participation rates in future DSIM filings. The benefits were developed by Empire’s outside DSM consultant, Applied Energy Group (“AEG”) as part of Empire’s 2013 IRP filing, and used to determine the incremental benefits attributable to the reduction in kWh for each program in the DSM portfolio. AEG also developed an estimate of capacity benefits for each of the proposed MEEIA DSM programs. The avoided cost and saving estimates used in the planning process will remain fixed until after completion of Evaluation Measurement and Verification (“EM&V”). After EM&V these values will be subject to change on a prospective basis.

The DSIM recovery of the Utility Incentive will be based on the percent of kWh savings actually attained as compared to Empire’s forecast of MEEIA DSM program energy savings. The Utility Incentive and the savings levels actually achieved are all subject to review during the EM&V on each of the programs. Given the proposed timing of EM&V, Empire does not expect the DSM Incentive to come into play in the proposed DSIM until program year 4, or the second cycle of the MEEIA DSM programs. A DSM Program analysis outlining estimated participants data and projected benefits by program is attached to this report as Appendix E.

To make the process more manageable and efficient, Empire proposes using standardized performance values to define the value derived from utilization of a program. These standardized values in the initial DSIM filings would be based upon the analyses set forth in this MEEIA filing (Appendix E, Appendix H and Appendix L). After EM&V is performed on the authorized MEEIA DSM programs, these initial standardized values will be based on the EM&V analysis performed for the new programs to cleanly adjust the dollar value of the kWh and kW savings provided by the programs. These updated EM&V results will be used to determine the Shared benefits in subsequent DSIM filings. Going forward Empire will track the DSM programs using these standardized values in the determination of Shared Benefits. As subsequent EM&V analysis is completed, the utilization and standardized performance values will be updated for future planning and future DSIM Shared Benefit recovery. The standardized performance values used in the initial MEEIA filing and the proposed DSIM are displayed in Appendix L. Among the Standard Performance values that will be used in the DSIM on each program are:

- Net to Gross Savings from each DSM measure installed; and
- Avoided Cost-Demand, Energy and Variable

Lost revenues are defined by the Commission’s MEEIA Rule as the changes in revenues that occur when Commission approved demand-side programs cause a drop in net system retail kWh below the level of system retail kWh used to set the electricity rates in the electric utility’s last general rate proceeding. The lost revenues will be based on energy or demand savings from the Company’s demand-side portfolio as approved by the Commission and measured and verified through EM&V. Lost revenues will be measured and verified through EM&V prior to recovery.

The Shared Benefit approach proposed by Empire will mitigate the negative financial impacts that are currently present for utility investment in energy efficiency programs in Missouri. Absent the DSM Shared Benefit mechanism proposed in this filing, Empire will have to reexamine its position regarding DSM and the level of investment in

Missouri DSM programs. At a minimum, the rejection of the requested DSM shared benefit approach proposed in this MEEIA filing would force Empire to restrict its DSM expenditures and DSM program(s).

In addition to significantly expanding its DSM efforts in this filing, Empire has demonstrated the cost effectiveness of the proposed DSM portfolio and complied with the commitments it made in this area in its 2010 IRP and in EO-2012-0206, Empire's 2012 MEEIA filing.

VARIANCES

Pursuant to 4 CSR 240-20.093(13), Empire requests the following variances:

- Empire requests a variance from 4 CSR 240-20.093(1)(C), the definition of Net Shared Benefits. Under Empire's proposal, the Shared Benefit calculation is based upon proposed DSM program avoided costs without a reduction for program costs. Empire's proposed utility incentive is based in part upon the Net Shared Benefit definition at 4 CSR 240-20.093(1)(C), and Empire is not requesting a variance from this definition as it relates to Empire's proposed Incentive.
- Empire requests a variance of the requirement in section 20.093(4) (A) that a utility with a DSIM file to adjust its DSIM rates every 6 months. Under Empire's proposal, DSIM rates are recalculated annually to reflect the prior calendar years DSM investment activity and DSIM recovery of the DSIM cost recovery revenue requirement.
 - Empire believes that a mandatory semi-annual DSIM adjustment is unnecessary and counterproductive until more experience with the MEEIA rule, the EM&V process, and the DSIM mechanism has been gained. The semi-annual filings at this point can only lead to a greater level of regulatory compliance cost that will reduce the cost benefit ratios associated with the proposed DSM programs, and ultimately make the DSM programs more expensive for Empire's customers. The semi-annual DSIM filings will only add DSM regulatory compliance costs.
- Empire requests a variance from 4 CSR 240-20.093(2)(H) concerning the use of annual net shared benefits as a component of Empire's proposed DSIM, and the measurement of the utility portion of net shared benefits as a percentage of savings targets.
 - Empire has used the avoided cost of an installed measure as a starting point in the calculation of Shared Benefits, rather than the avoided cost less program costs, or net shared benefits. Empire's approach greatly simplifies the calculation and avoids combining different types of program costs, which can vary from routine ongoing costs that are incurred monthly to costs that are sporadic in nature, such as the cost of the development of a Missouri Technical Resource Manual. This combination of different types of program costs will lead to variations in net shared benefits from each measure that is confusing, misleading and cumbersome. By focusing on a DSM measures' avoided cost, this confusion can be avoided. In addition, Empire's proposal will ultimately include the avoided cost of DSM measures actually installed during a calendar year. Empire's method is simple, can be tracked easily, and ensures that any Shared Benefits earned by Empire are restricted to DSM measures that are actually installed.
 - This variance is critical to the implementation of additional DSM programs in Missouri, given the absence of a Missouri DSM Technical Resource Manual. This variance provides the financial support for Empire's expanded investment in Missouri DSM programs. Absent this variance, the increase in Empire's

DSM investment would adversely impact Empire's earnings and be detrimental to Empire's overall financial profile. As indicated in Appendix G to this report, the adverse financial impact of the proposed DSM programs could be almost \$11.2 million in DSIM revenue during the five years following program implementation absent the requested variance. This potential loss in revenue and associated earnings appears to be permanent, not temporary, and represents a significant barrier to the expansion of Empire's DSM portfolio. The variance requested will also provide a better match between DSM program costs and DSIM revenues and will avoid DSIM rate shock.

The DSM Shared Benefit variances are critical to the successful implementation and expansion of Empire's DSM portfolio. As displayed in Appendix G, absent the requested variances, the expanded DSM portfolio is financially unsustainable.

FILING REQUIREMENTS

The MEEIA requirements along with the appropriate reference or discussion of how Empire's filing meets the compliance requirements are referenced below:

- A) The customer notice provided describing how the proposed DSIM will work, how rates will be determined and will appear on their bills.

Reference: Appendix A.

- B) Customer bill example showing how proposed DSIM shall be separately identified on the customer bill.

Reference: Appendix B.

- C) A complete description and explanation of the design, rationale, and intended operation of the proposed DSIM.

Reference: This is included in the report, as well as defined in the tariff for the DSIM Rider attached to this report in Appendix C.

- D) Estimates of the effect of the DSIM on customer rates and average bills for each of the next five (5) years for each rate class.

Reference: Appendix F.

- E) Estimates of the effect of the utility incentive component of DSIM on utility earnings and key credit metrics for each of the next three (3) years which shows the level of earnings and credit metrics expected to occur for each of the next three (3) years with and without the utility incentive component of DSIM.

Reference: Appendix G.

(F) A complete explanation of all the costs that shall be considered for recovery under the proposed DSIM and the specific account used for each cost item on the electric utility's books/records.

Response: DSM Program costs and Shared Benefits will be recorded as incurred and a regulatory asset Account 182329 used to record any over/under cost recovery. DSIM Rider revenue will be recorded monthly in a separate revenue account as earned.

Cost Recovery Elements and Accounts

Empire follows the Generally Accepted Accounting Principles ("GAAP") for financial accounting. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practice at a particular time. Further, Empire maintains its books and records in accordance with the Federal Energy Regulatory Commission's Uniform System of Accounts. Within these structures Empire has established an Accounting Distribution Coding system to allow for the proper classification of costs. Empire plans to utilize the following accounting components to track and classify its future MEEIA DSM expenditures:

- Business unit - A code assigned to specific legal entities or regulatory jurisdictions to identify the entity responsible for the cost.
- Department - A code used to separate costs by functional groups within the Company's business units.
- Account - The prescribed accounts mandated by FERC in the Code of Federal Regulations for the classification of assets, liabilities, revenues and expenses.
- Product - The product represents a type of service being provided.
- Project - The project id identifies the project or initiative associated with the cost.

For the MEEIA related DSM programs, the Company will utilize these components with specific emphasis on Department, Account and Project codes to classify the costs. Currently, for the Department code, Empire uses the following:

Department	Description
000	Corporate

For the Account code, Empire currently uses the following:

182329	MEEIA Cost
182318	Deferred Cust Program-MO
182303	Deferred Cust Program-AR
182310	Deferred Cust Programs-OK
182309	Deferred Cust Programs-KS

For the Project code, individual codes will be established for each program.

Taken in their entirety the combination of codes will allow for the proper classification of

costs and the clear delineation of purpose. These codes will be expanded as needed to accommodate the programs included in this MEEIA filing.

In addition, Empire plans to make use of a data base program from an outside vendor to track individual program metrics such as measures installed, the kilowatt and kilowatt-hour savings associated with the individual measure installed, cost savings associated with each measure, individual customer/participant information, etc.

(G) A complete explanation of any change in business risk to the electric utility resulting from implementation of a utility incentive related to the DSIM in setting the electric utility's allowed return on equity, in addition to any other changes in business risk experienced by the electric utility. The utility incentive related to the DSIM is intended to put the utility's DSM earnings potential on a level playing field with supply-side resources. The incentive is intended to be a stabilizing factor that will allow for growth in DSM applications that will benefit all stakeholders.

Response: The earnings analysis provided in Appendix G demonstrates that the proposed DSIM, Shared Benefit and Incentive mechanism essentially supports Empire's existing financial profile when compared to the current recovery mechanism which excludes Shared Benefits and Utility Incentive. The existing recovery mechanism financially discourages the Company's investment, promotion and implementation of DSM programs. Under Empire's DSIM proposal, Empire's financial metrics are maintained at the levels currently forecast. This result is in direct contrast to the cost recovery that takes place under the existing cost recovery process, which is only adjusted at the time of a general rate case. Assuming the forecast level of program costs, Empire's expected earnings levels would decline by around two and one-half (2.5%) percent by the fifth year of program implementation, if the current DSM cost recovery process were used to recover Empire's DSM program costs. The difference in financial results between the two recovery mechanisms is primarily related to DSIM Shared Benefits and Utility Incentive. Empire's DSIM proposal includes sharing in avoided costs and the potential of an earnings incentive for specific levels of program performance, while Empire's existing DSM recovery process does not.

(H) A proposal for how the commission can determine if any utility incentives component of a DSIM are aligned with helping customers use energy more efficiently.

Response: This can be determined by reviewing the evaluation of the programs to be implemented under Empire's MEEIA program proposal. As indicated in Appendix E, on a cumulative basis, Empire's proposed DSM programs pass the TRC test. In addition, the proposed DSM programs provide benefits to consumers that significantly exceed the costs on a net present value basis.

(I) Annual reports, if any, required by 4 CSR 240-20.093(8).

Response: None are required at this time.

(J) If the utility proposes to adjust its DSIM rates between general rate proceedings, proposed DSIM rate adjustment clause tariff sheets.

Response: Appendix C.

(K) If the utility proposes to adjust the DSIM cost recovery revenue requirement between general rate proceedings, a complete explanation of how the DSIM rates shall be established and adjusted to reflect over-collections/under-collections and the impact on the DSIM cost recovery revenue requirement as a result of approved new/modified/discontinued demand-side programs.

Response: This explanation is included in the report as well as defined in the tariff for the DSIM Rider included in Appendix C and Appendix F.

(L) An explanation of the current market potential study;

Response: The potential study has been included as Appendix H to this report.

(M) Demonstration of cost effectiveness for each demand-side program and for the total of all demand-side programs of the utility. TRC test and a detailed description of utility's avoided cost calculations and all assumptions. Calculations for the utility costs test, the participant test, the non-participant test, and the societal cost test. The impacts on annual revenue requirements and Net Present Value of annual revenue requirements as a result of the integration analysis in accordance with 4 CSR 240-22.060 over the twenty (20)-year planning horizon;

Response: See Appendix I and Appendix E attached to this report.

- (N) Detailed description of each proposed demand-side program to include at least:
- Customers targeted; Measures included; Customer incentives; Proposed promotional techniques;
 - Specification of program administration by the utility or contractor;
 - Projected gross and net annual energy savings;
 - Proposed annual energy savings targets and cumulative energy savings targets;
 - Projected gross and net annual demand savings;
 - Proposed annual demand savings targets and cumulative demand savings targets;
 - Net-to-gross factors;
 - Size of the potential market and projected penetration rates;
 - Any market transformation elements included in the program and an EM&V plan for estimating, measuring, and verifying the energy and capacity savings that the market transformation efforts are expected to achieve;
 - EM&V plan including at least the proposed evaluation schedule and the proposed approach to achieving the evaluation goals pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7);
 - Budget information by category (i.e., program incentive, administrative costs, equipment costs, etc.);
 - Description of any strategies used to minimize free riders or maximize spillover; and
 - For demand-side program plans, the proposed implementation schedule of individual demand-side programs.

Response: This information is provided in the report and Appendix E to the report.

(O) Demonstration and explanation in quantitative and qualitative terms of how the utility's demand-side programs are expected to make progress towards a goal of achieving all cost-effective demand-side savings over the life of the programs. Should the expected demand-side savings fall short of the incremental annual demand-side savings levels and/or the cumulative demand-side savings levels used to review the utility's progress, the utility shall provide detailed explanation of why the incremental annual demand-side savings levels and/or the cumulative demand-side savings levels cannot be expected to be achieved, and the utility shall bear the burden of proof.

Response: See analysis of proposed programs in Appendix E and Appendix M.

(P) Identification of demand-side programs which are supported by the electric utility and at least one (1) other electric or gas utility (joint demand-side programs).

Response: Empire and Missouri Gas Energy have whole home performance programs available to their customers.

SUMMARY OF PROPOSED DSM PROGRAMS

The following DSM programs are proposed as part of Empire's MEEIA filing:

Program	Est. Cumulative Savings-MWH First 3 Yrs	Est. Cumulative Savings-MW First 3 years	Est. Program Costs-First 3 Years
Residential Products	22,154	2.03	\$2,545,694
Appliance Recycling	1,642	.29	\$324,736
High Efficiency HVAC	3,527	2.51	\$1,858,710
Residential Whole House	4,965	1.07	\$3,159,624
Low Income Weatherization	2,313	.84	\$815,989
Low Income New Homes	33	.01	\$20,458
Schools Kits	876	.18	\$131,032
Small Business Lighting	7,441	1.28	4,223,189
C&I Energy Efficiency Rebate-Custom	2,689	.47	\$161,946
C&I Energy Efficiency Rebate-Prescriptive	7,938	1.36	\$718,925
Building Operator Certificate	1,180	.46	\$92,585
Interruptible Service Rider	243	8.22	\$48,959

As proposed, Empire's DSM programs are expected to produce annual kWh savings of 0.51 percent in year 1 increasing to around 1.50 percent by Year 3. The annual demand savings with the portfolio is expected to 0.6 percent in Year 1 increasing to 1.38 percent by Year 3. These results are compatible with the Commission's MEEIA rule for 2012 through 2014, which specify an initial annual energy savings goal of 0.3 percent, which increases to 1.5 percent after three years. The overall budget for Empire's DSM programs has also been increased from the current annual levels of \$1.5 million per program year to almost over \$5.0 million, or over three (3) times the current budget levels. It is estimated that over the life of the various DSM measures expected to be installed over the first three years of Empire's proposed DSM portfolio, Empire's DSM programs will save over 531,000 megawatt-hours or the same energy used by approximately 40,000 homes on an annual basis. At the assumed customer participation rates, assumed program budgets and requested level of incentives, the proposed DSM programs are expected to increase Empire's residential rates by approximately 2.21 percent or almost \$3 per month by the end of the third year of the DSM programs.

As proposed, Empire's DSM programs are expected to have a life of three (3) years. This expected life corresponds to the MEEIA requirement that utilities file a general rate case every 3 years in order to take advantage of the DSIM. The required general rate case filing will enable Empire to synchronize the various DSM program components such as program costs, shared benefits, incentives, EM&V results and lost revenues as part of a general rate case and avoid any stranded DSM program costs, incentives, etc. due to regulatory lag.

COST RECOVERY-THE COMPANY VIEW POINT

The DSIM proposed by the Company, including the shared benefit and incentive components, are critical to the proposed expansion of Empire's DSM portfolio. As proposed, the DSIM will offset the adverse financial impact of implementing DSM under Empire's existing DSM cost recovery process. If Empire's DSIM proposal, including its shared benefit component, is rejected or significantly modified by the Commission, Empire will be forced to reconsider its plan to expand its DSM portfolio due to the adverse financial impacts the expansion would have on the Company's financial profile. The Commission's MEEIA rules attempted to take into account the disincentive associated with untimely DSM cost recovery under the existing cost recovery process which represented a significant barrier to the implementation of utility sponsored DSM, and the Commission published MEEIA rule that allows for DSM cost recovery outside of the normal rate case process. Acceptance of Empire's DSIM proposal is also critical due to the Company's existing rate design, which recovers a substantial portion of the Company's ongoing fixed costs based upon the volume of electricity sold. Company sponsored DSM at any level will reduce the volume of electricity sold and, in effect, deny Empire a reasonable opportunity to recover its fixed costs unless defined shared benefits and utility incentives are made part of DSM program cost recovery. Empire's DSIM proposal, including the shared benefit and incentive components, is reasonable and will mitigate the negative financial impact associated with the lower sales volumes due to Company sponsored DSM programs.

APPENDIX INDEX

APPENDIX	DESCRIPTION
A	Customer Notice
B	Customer Bill
C	DSIM Tariff
D	Proposed DSM Tariffs
E	Proposed DSM MEEIA Programs
F	Customer Bill Impact-Proposed DSIM Rider/Proposed DSM Programs
G	Financial Impact of DSIM/Proposed DSM Programs
H	IRP Potential Study
I	IRP Empire Preferred Plan
J	EM&V DSM Plans
K	Agreement EO-2011-0066 and EO-2012-0206
L	Standardized Performance Values
M	Estimated Program Savings