MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: EO-2012-0206

PROPOSED ENERGY EFFICIENCY PORTFOLIO

THE EMPIRE DISTRICT ELECTRIC COMPANY

Joplin, Missouri
February 2012

Certain Schedules Attached To This Report
Contain Highly Confidential Information.
All Such Information Should Be Treated Confidentially
Pursuant To 4 CSR 240-2.135.

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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 energy efficiency portfolio and the ability to account for costs as set out in the DSIM Rider 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 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:

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 first MEEIA filing. Empire agreed to make this MEEIA filing as part of a settlement reached in Empire's most recent Integrated Resource Plan ("IRP") proceeding before the Commission, Case No. EO-2011-0066 (See Appendix K). 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 all of Empire's existing energy efficiency programs and the following new programs:

1. Residential High Efficiency Lighting Program
2. Energy Star Appliance Program, which includes a dehumidifier rebate
3. Refrigerator Recycling Program
4. Residential Energy Comparison Program

The proposed DSM programs include the new energy efficiency programs that Empire agreed to analyze and implement in the Agreement reached by the parties in EO-2011-0066.

In addition to seeking Commission approval of the new energy efficiency programs and Commission approval for a continuation 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 recently enacted 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 latest 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 an incentive to the Company for implementation of energy efficiency programs, through a tariff rider. It is estimated that the recovery of these energy efficiency costs will represent an increase of nearly $5.4 million for Empire's Missouri customers starting in 2013. As proposed, the DSIM will be charged as a separate rider and 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 2013 will be $0.00139 per kWh, and represent an increase from 1.2% to 1.8% in overall revenue from the Company's Missouri residential, commercial and industrial customers.

Empire is requesting a new and separate 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 expenses. It 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 and full 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. Currently, Empire's DSM expenses between rate cases are placed in a deferred account 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. The current DSM cost recovery authorized for Empire also lacks the transparency envisioned by the Commission's MEEIA rules, i.e. separate line item billing disclosure. 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. However, under the 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. They are:

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 four (4) general rate cases in Missouri, Case Nos. ER-2006-0315, ER-2008-0093, ER-2010-0130, and ER-2011-0004. 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. The CAAs spend an average of $1,200 of Empire funds to go along with their DOE funds. 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 original 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 September of 2010. The implementation date of the four new DSM programs was accelerated due to the agreement reached in Empire's last IRP. Empire's current demand-side portfolio includes ten (10) programs. The following table displays Empire's existing demand-side portfolio of programs and estimated savings for calendar year 2010.

Table of 2010 DSM Activity

Program	**TRC**	**Est. Net kWh Savings**	**Est. Net KW Savings**	**Participation**	**Total Expenditures**
Res. HE Lighting	5.06	2,250,719	649	47,540	$145,432
Res. A/C Rebate	2.36	800,119	761	545	265,955
Energy Star New Homes	1.53	148,599	128	57	86,687
Home Perf.-Energy Star	1.02	28,800	25	24	18,922
Low Income New Homes	2.64	2,536	7	2	1,322
Low Income Weatherization	16.27	588,924	10	287	251,032
C&I Custom Rebate	8.52	4,529,981	995	30	228,310
C&I Prescriptive Rebate	5.61	280,653	166	15	33,908
BOC	n/a	0	0	0	1,029
Interruptible Service Rider	n/a	0	3,100	3	67,896
Admin & Evaluation					62,123
		8,630,330	5,842	48,503	$1,162,617

Empire has filed new tariffs for each of these existing DSM programs 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 has requested the approval of four (4) additional DSM programs as part of this MEEIA filing.

STATUS OF EM&V REPORTS FOR DSM PROGRAMS

Empire has attached copies of the EM&V reports that have been completed for existing DSM programs to this report as Appendix J.

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 actual share of benefits for recovery.

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 rate to recover the revenue requirement associated with Empire's proposed DSM program portfolio and the authority to account for costs as set out in the DSIM Rider described below. The tariff outlining the recovery mechanism and actual implementation plan 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 net benefits of the programs to be shared with customers, an incentive to the Company for actual program implementation and the eventual recovery of lost contribution to fixed cost due to the implementation of DSM programs.

(2) The Company is requesting approval of the suite of demand-side programs, including those programs contemplated in the agreement reached in Empire's most recent IRP proceeding, EO-2011-0066 (Appendix K). This report includes new DSM tariffs for those programs that are either currently in effect 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 recovery mechanism. The recovery of the costs deferred under the existing DSM programs prior to the effective date their re-approval in this MEEIA filing will continue to take place under the recovery mechanism that was approved as part of Empire's last rate case, ER-2011-0004, and these cost deferrals and the ultimate recovery of those costs would continue to be part of Empire's future rate cases. Future rate cases will also be used to synchronize and fine tune the level of shared benefits included in the DSIM.

PROPOSED DEMAND-SIDE PROGRAMS

A brief description of each of Empire's proposed DSM programs included in the MEEIA filing follows:

Residential High Efficiency Lighting 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 this program was contemplated by the agreement between the parties in Empire's last IRP. ENERGY STAR® qualified compact fluorescent lamps (CFLs) use up to 75% less energy than typical incandescent light bulbs as well as offer superior performance, lasting up to 10 times longer than incandescent bulbs, reducing the need to change hard-to-reach light bulbs. The current generation of CFLs offer bright and warm light and are available in a wide variety of shapes and sizes. CFL technology continues to mature, with recess lighting lamps costing little more than incandescent and 3-way CFL lamps becoming more affordable.

As proposed, the new program distributes CFL lighting kits to residential customers through mail or at local events. Each kit contains four standard screw-in CFLs, plus educational literature on proper selection and disposal of CFLs. Empire will work with local community organizations and government agencies to identify local events.

The primary objective of the program is to secure energy savings by encouraging the usage of ENERGY STAR® qualified CFLs. Program goals include:

- Help residential customers reduce their electricity bills.
- Educate residential customers about the program and the benefits of installing CFLs.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort.
- Effectively install efficient lighting through the Empire Program.
- Encourage energy saving behavior and awareness.

ENERGY STAR Appliance Program

This is a new program and includes one of the programs that Empire agreed to screen in the agreement reached in the last Empire IRP. ENERGY STAR® qualified appliances are more efficient than standard models and reduce consumer's energy consumption. The program will offer residential and small business (<40 kW per year) customers a $25 mail-in rebate for the purchase of an ENERGY STAR qualified washing machine, refrigerator, dehumidifier, room air conditioner, freezer, Smart power strip, Energy Star® fixture or LED bulb.

Empire will build customer awareness of the ENERGY STAR® brand through advertising and promotions. The program will be marketed through bill inserts, newspaper advertisements, advertising in community newsletters to Empire customers and partnerships with local appliance retailers.

The purpose of this program is to encourage residential customers to purchase high efficiency products and appliances.

Program goals include:

- Help residential and small business customers reduce their electricity bills.
- Develop partnerships with retailers to encourage the sale of ENERGY STAR® appliances to customers.
- Effectively market and promote high efficiency products and appliances.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort.
- Encourage energy saving behavior and awareness of the benefits of high efficiency equipment.

Refrigerator Recycling Program

This is a new program and one of the programs that Empire agreed to screen in the agreement reached in the last Empire IRP. The Refrigerator Recycling Program will encourage residential and small business (<40 kW per year) customers to remove inefficient refrigerators from the electric system and dispose of them in an environmentally safe and responsible manner.

As designed, the program will provide a $50 rebate to residential or small business customers that turn-in their old, inefficient refrigerator. The refrigerators must be between 10 and 30 cubic feet in size, at least five years of age and be operable. Customers will be limited to 2 rebates per program year.

Empire will choose a third-party program implementer that specializes in appliance recycling and has access to a recycling facility. The implementer will handle scheduling, transportation and disposal. Additionally, the contractor will provide nameplate data on units to assist in impact evaluation.

Empire will work with the program implementer to develop innovative and creative marketing strategies and materials. The program will be marketed through bill inserts, newspaper advertisements, advertising in community newsletters to Empire customers.

Program goals include:

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

High Efficiency Cooling Rebate Program

The High Efficiency Cooling Rebate Program encourages residential and small business (<40 kW per year) customers to purchase and install energy efficient cooling systems and programmable thermostats. Financial incentives are designed to offset the higher initial cost of the efficient equipment.

All residential and small business customers, including owners of rental properties and home builders, are eligible to participate in the program. Participating HVAC contractors must provide evidence of Air Conditioning Contractors of America (ACCA) Manual J training. 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.

Empire has developed relationships with local HVAC contractors to promote the program, through direct mailings to contractors, distributors, dealers and wholesalers, as well as presentations at the Chamber of Commerce. Participating HVAC contractors distribute program brochures to potential customers, developed by Empire. The program marketing to customers includes bill inserts, bill messaging, newspaper advertisements, email blasts.

Beginning in 2012, Empire will conduct installation inspections utilizing in-house staff or a third-party contractor. Inspections will be conducted on the first four projects completed by a contractor, then 10 percent of the projects completed by a contractor thereafter.

The program's long-range goal is to encourage contractors and distributors to use energy efficiency as a marketing tool, stocking and selling more efficient units and moving the entire residential cooling market toward greater energy efficiency. Additional program goals include:

- Educate customers about the program and the benefits of installing high efficiency cooling equipment and programmable thermostats.
- Develop partnerships with contractors to bring efficient cooling systems to the market.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort.
- Reduce household and small business energy consumption.
- Encourage energy saving behavior.

Home Energy Comparison Reports

This is a new program and one of the programs that Empire agreed to screen in the agreement reached in the last Empire IRP. Home Energy Comparison Reports are designed to educate and motivate customers to reduce their energy consumption by comparing their electricity usage to an average of 100 neighbors in similar-sized homes with similar characteristics. The reports will include targeted efficiency recommendations based on an analysis of the household's energy usage, demographics and housing characteristics.

Empire will choose a vendor that generates Home Energy Comparison Reports using a software platform that combines energy usage data with customer demographic, housing and Geographic Information System (GIS) data. One company offering such a platform is OPower's Home Energy Reporting System. The Home Energy Reporting System is a proven energy efficiency program that successfully leverages large-scale consumer engagement to drive measurable, predictable and sustainable energy savings.

The selected vendor will deploy an online tool suite on Empire's Smart Energy Solutions webpage that gives customers greater insight into their energy consumption and simple steps they can take to become more energy efficient.

Program goals include:
- Increase awareness of energy efficiency and energy use in the home.
- Educate residential customers about the benefits of energy efficiency and the opportunities to reduce energy consumption.
- Increase awareness of, and participation in, Empire's energy efficiency programs.
- Support the use of the internet as a source of education and resources on energy efficiency.

ENERGY STAR New Homes Program

The ENERGY STAR® New Homes Program encourages the construction of homes that meet ENERGY STAR® New Home guidelines. An ENERGY STAR® new home is 15 to 20 percent more energy efficient than an average new home.

The benefits of owning an ENERGY STAR® Qualified Home include reduced costs as a result of:
- Properly installed and inspected insulation in floors, walls, and attics
- High performance windows
- Tight construction and correctly installed duct system
- Efficient heating and cooling equipment
- Improved air quality
- Efficient lighting and appliances

Empire provides incentives to two groups:
(1) Home Energy Raters (RESNET certified), for each home energy audit performed.
(2) Builders and retailers/dealers that sell manufactured homes, for each home that achieves the ENERGY STAR® Qualified Home designation, offsetting the additional costs of the enhanced construction techniques.

Empire partnered with the Crowder College Missouri Alternative and Renewable Energy Technology (MARET) Center to provide the required training and assist in certifying RESNET certified auditors. In 2012, Empire will explore partnering with other local colleges and universities.

Empire builds awareness of the ENERGY STAR® brand through advertising and promotions. The program is marketed through bill inserts to Empire customers as well as representation at community events and Chamber of Commerce meetings.
Program goals include:
- Help residential customers reduce their energy bills.
- Develop partnerships with home builders and manufactured home retailers/dealers to encourage the sale of ENERGY STAR® homes to customers.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort.

- Encourage energy saving behavior and awareness of the benefits of high efficiency equipment.

Home Performance with ENERGY STAR

The Home Performance with ENERGY STAR® Program encourages whole-house improvements to existing homes by enhancing home energy audits and promoting comprehensive retrofit services. The proposed program will offer up to $1,200 in incentives for qualifying improvements made to the residence. The program also focuses on addressing a variety of customer needs, such as comfort, durability, health and safety.

A home energy audit, performed by a Building Performance Institute (BPI) accredited contractor, identifies potential improvements and the associated cost estimates. To qualify for the $400 rebate, participants need to incorporate at least one of the following measures in the retrofit:

- Insulation (attic, wall, basement, ductwork, etc.) that complies with the current International Energy Conservation Code (IECC);
- Exterior windows, skylights and doors with a solar heat gain coefficient and U-Factor ≤ 0.30;
- Envelope air-sealing which achieves building tightness levels that comply with the IECC; or
- Air-sealing of exterior ductwork to achieve tightness levels that comply with the IECC.

A random sample of jobs is inspected post-installation.
Empire partnered with the Crowder College Missouri Alternative and Renewable Energy Technology (MARET) Center to provide BPI training and certification for participating contractors. Empire builds customer awareness of the ENERGY STAR® brand through advertising and promotions. The program is marketed through bill inserts to Empire customers. Additionally, Empire hosts information booths at community events and gives presentations at local contractor and Chamber of Commerce meetings.
Program goals include:

- Increase awareness of the ENERGY STAR® brand.
- Help residential customers reduce their electricity bills.
- Develop partnerships with contractors to encourage and facilitate whole-house energy improvements and BPI certification.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety and comfort.
- Encourage energy saving behavior and awareness of the benefits of high efficiency equipment.

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 agencies anticipate spending an average of $2,000 per home, using an average of $1,631.
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 (baseline R-13).
    - Attic insulation with an R value ≥ 38 (baseline R-30).
    - Floor insulation with an R value ≥ 19 (baseline R-13).
- Central Air Conditioning, full incremental cost up to $400 for a SEER ≥ 14 (baseline SEER 13).
- Heat Pump, full incremental cost up to $400 (baseline SEER 13). 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 to ten homes in Missouri per year.

Marketing includes advertising through bill inserts and direct mail to eligible residential customers. Empire supplements the marketing efforts, via bill inserts, newspaper advertisements and radio advertisements.

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 three parts, an energy audit, prescriptive rebates and custom rebate retrofit.
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 installing high efficiency equipment.
- Develop partnerships with contractors and distributors to bring energy efficient products and systems to the market.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.
- Effectively install efficient equipment and systems through the Empire Program.
- Help commercial and industrial customers reduce their electricity bills

Energy Audit

Energy audits provide customers with a comprehensive analysis of their building energy use and recommendations on ways to reduce energy costs and improve energy efficiency. An incentive covers 50% of the audit cost, up to $300 for facilities less than 25,000 square feet and up to $500 for facilities over 25,000 square feet. Customers with multiple buildings are eligible for multiple audit rebates.

To receive the incentive, the audit must be performed by an Empire certified energy auditor, a copy of the audit report must be submitted with the rebate application, and the participant must implement at least one of the audit recommendations that qualify for an Empire equipment rebate.

Prescriptive Rebate

Pre-qualified prescriptive rebates are available for commercial new construction and retrofits. The rebated measures are proven technologies that are readily available with known performance characteristics. An audit is not required to participate. 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. Eligible equipment categories include lighting, motor and HVAC equipment.

Custom Rebate

Non-residential customers that install energy efficient equipment in a new or existing facility that does not qualify for a prescriptive rebate may receive a custom incentive. An audit is not required to participate, but applications must be pre-approved by Empire before equipment is purchased and installed. Custom projects are reviewed to ensure they produce a Societal Benefit-Cost Test of 1.05 or higher and have an incremental payback greater than two years.

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.

Incentives are the lesser of the following:

- A buy-down to a two year payback;
- 50% of the incremental cost; or

  50% of lifecycle avoided demand and energy costs.

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 to the Chamber of Commerce.
Program goals include:

- Education of non-residential building operators about the benefits of efficiency.
- Demonstrate persistent energy savings and provide other benefits to end-users such as improved health, safety, and comfort.
- 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 purpose of load shedding is to avoid the occurrence of involuntary load curtailments and/or excessive purchased energy prices

The program is designed to reduce customer load during peak periods, upon 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.
- Effectively install efficient equipment and systems through the Empire Program.
- 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.

Residential Energy Efficiency Programs	
Residential High Efficiency Lighting	Distribute CFL lighting kits to customers through mail or at local events, containing 4 standard screw-in CFLs.
ENERGY STAR Appliances	Customers receive a $25 rebate for the purchase of a qualified ENERGY STAR washing machine, refrigerator, dehumidifier, room air conditioner, freezer, indoor fixture, smart strip or LED bulb.
Refrigerator Recycling	Customers receive a $50 rebate for recycling an old inefficient refrigerator.
High Efficiency Cooling Rebate	Customers receive $300-$600 rebate for installing efficient cooling systems and $25 for installing a programmable thermostat.
Home Energy Comparison Report	Educates customers utilizing a comparison of the customer's energy usage to the average energy usage of 100 neighbors in similar-sized homes with similar characteristics. The report includes efficiency recommendations.
ENERGY STAR New Homes	Home Energy Raters receive $400 incentive for each home energy audit. Builders receive $800 incentive for each home that achieves the ENERGY STAR® Qualified Home designation.
Home Performance with Energy Star	Customers receive up to $1,200 rebate for qualifying whole house improvements.
Low Income Weatherization	Supplements the federal Low Income Weatherization Assistance Program, reducing energy costs for eligible low income homeowners and renters through increased home efficiency.
Low Income New Homes	Customers receive up to $1,200 for qualifying efficiency improvements.
Commercial Energy Efficiency Programs	
C&I Energy Efficiency Rebate	Customers receive up to $20,000 for prescriptive or custom equipment installed.
Building Operator Certificate	Customers receive $575 incentive for building equipment and processes training and certification.
Interruptible Service Rider	Customers receive incentives for reducing load during peak periods, upon request by Empire.

Program	TRC	Net Savings KWH	Net Savings KW	Participation	Total Budget
Residential High Efficiency Lighting	4.97	2,637,034	193	65,000	$308,490
ENERGY STAR Appliances	1.33	84,657	22	950	35,969
Refrigerator Recycling	4.53	379,776	61	400	84,630
High Efficiency Cooling Rebate	1.92	1,281,785	839	1,282	442,075
Home Energy Comparison Report	1.61	1,800,000	16	7,500	81,648
ENERGY STAR New Homes	1.01	918,261	105	300	1,360,425
Home Performance with Energy Star	1.42	511,840	58	175	188,160
Low Income Weatherization	1.34	718,200	82	350	511,560
Low Income New Homes	.66	92,340	11	45	42,525
C&I Energy Efficiency Rebate-Custom	1.84	1,251,411	370	50	472,500
C&I Energy Efficiency Rebate-Prescriptive	1.63	1,190,310	303	100	351,666
Building Operator Certificate	6.84	325,560	66	40	32,361

Interruptible Service Rider	36.20	0	5,000	10	40,950
Total		11,191,173	7,125	76,202	$3,952,960

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

COST RECOVERY AND INCENTIVE MECHANISM

The DSIM Rider 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 Rider consists of three components: a) DSM costs, b) DSM incentives, and c) DSM lost revenues. The DSIM Rider being proposed will allow for recovery of all program costs, an incentive which includes a portion of the annual customer benefits ("shared benefits") based on the actual level of program performance plus an incentive reflecting an enhanced rate of return on actual DSM program investment and lost revenues. 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 two Missouri customers have declined to participate in Empire's DSM programs and have opted out under the Commission rules. These customers consume around 136,000 megawatt-hours of electricity each year or around three (3) percent of Empire's annual Missouri sales.

The DSIM Rider follows the basic structures laid out in the Commission's MEEIA rules. The Rider is designed to recover the actual costs associated with the Company's Commission-approved DSM portfolio, including DSM program costs, incentives, and ultimately lost revenue. These costs will be recovered through a DSIM charge applied to each customer's bill on a kilowatt-hour basis ($/kWh). The charges will be identified and shown as a separate line on the customer's bill.

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 associated with each program on an annual (calendar year) basis and establish a regulatory asset. In addition to DSM program costs, the regulatory asset will include the Company's portion of shared benefits and an enhanced rate of return on Empire's actual investment in DSM programs. Annually on May 1, Empire will file for recovery of DSIM Revenue Requirement that has been accumulated in the regulatory asset the prior calendar year. For example, Empire expects to spend approximately $4.0 million during the first year of full program operations. In addition to these direct costs, Empire would add a portion of shared benefits of $1.1 million, an enhanced rate of return or carrying costs of $315,000, and estimated regulatory approval costs of $100,000. In total, Empire would file for a DSIM revenue requirement of $5.4 million that would be recovered over a 12-month period beginning July 1, 2013 and ending

June 30, 2014.

The incentive component of the DSIM revenue requirement consists of a portion of the annual shared benefits for DSM measures actually installed and an enhanced return on Empire's actual investment in DSM programs during the prior calendar year. The shared benefits will be the sum of the avoided cost savings obtained over the expected life of the demand-side programs actually implemented during the prior calendar year. The benefits were developed by Empire's outside DSM consultant, Applied Energy Group ("AEG") 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 programs.

The DSIM recovery of the shared benefits will be based on a percent of the annual overall lifetime benefits from the programs actually implemented in a calendar year. As proposed, Empire is seeking recovery of nineteen (19) percent of the expected DSM benefits as an incentive. A DSM Program analysis outlining estimated participants data and projected benefits by program is attached to this report as Appendix C and 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 flings would be based upon the analyses set forth in this MEEIA filing (Appendix E and Appendix L). After EM&V is performed on the authorized 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 "true-up" prior period incentive accruals and used to accrue incentives 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 incentive recovery. The standardized performance values used in the MEEIA filing and the proposed DSIM are displayed in Appendix L. Among the Standard Performance values that will be used to accrue earned incentives subject to "true-up" in the next EM&V on each program are:

- Net to Gross Savings from each DSM measure installed
- Avoided Cost-Demand, Energy and Variable
- Rate of Return (Carrying Cost)

Under Empire's DSIM proposal, an additional incentive is calculated by apply an enhanced rate of return to Empire's actual investment in DSM programs during a calendar year. This is calculated using Empire's most recent before tax rate of return authorized by the Commission and adjusting it for an additional 200 basis points in return on equity. This is displayed as one of the standardized performance values in Appendix L.

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 will be measured and verified through EM&V prior to recovery.

The shared benefit approach and return incentive 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 incentive 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 incentives proposed in this MEEIA filing would force Empire to restrict its DSM expenditures and DSM program(s) life to the levels agreed to in its last rate case ER-2011-004.

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 most recent IRP.

VARIANCES

Empire has the following variance requests:

- Empire requests a variance, pursuant to 4 CSR 240-20.093(13), 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 in 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, pursuant to 4 CSR 240-20.093(13), of the requirement in section 20.093(4) that a utility with a DSIM file to adjust its DSIM rates every 6 months and shall not include any adjustments to the DSIM utility lost revenue requirement or the DSIM utility incentive revenue requirement.
- In addition to DSIM adjustments between rate cases, Empire's DSIM proposal also enables Empire to adjust its DSIM annually for changes in incentives earned due to the number of DSM measures actually installed during the prior calendar year. This variance is required to provide the required financial support for Empire's expanded DSM portfolio. Absent the requested variance, Empire's financial profile will be harmed. See Appendix G to this report for details.
  Pursuant to 4 CSR 240-20.093(13), Empire requests a variance from 4 CSR 240-20.093(2)(H) concerning the use of annual net shared benefits as a component of the utility incentive 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 its incentive request, rather than the avoided cost less program costs, or net shared benefits. Empire's approach greatly simplifies the incentive 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 proposed incentive will start with the avoided cost of DSM measures actually installed during a calendar year as opposed to the rule that calls for the utility incentive to be measured against a target level of savings. Empire's method is simple, can be tracked easily, ensures that any incentives earned by Empire are restricted to DSM measures that are actually installed, and avoids penalizing Empire if its customers do not elect to participate in Empire's DSM offerings.

- Pursuant to 4 CSR 240-20.093(13), Empire requests a variance of 20.093(2)(H)3 which requires that any utility incentive component of a DSIM be implemented on a retrospective basis and all energy and demand savings used to determine a DSIM utility incentive revenue requirement be measured and verified through EM&V.
  - Out of an abundance of caution, Empire is requesting a variance in this area of the Commission's MEEIA rules, because Empire has proposed to use the EM&V results on both a prospective and retrospective basis. The incentive component proposed by Empire consists of a shared portion of the annual DSM benefits on a prospective basis and the establishment of standard performance values to be used in the DSIM incentives subsequent to several EM&V reviews on existing DSM programs, but prior to the initial EM&V on the new DSM programs being requested as part of the MEEIA filing. The prospective portion of the annual shared benefit and the determination of the standard performance values included in the DSIM mechanism are critical to the success of the DSM programs and the design of a recovery mechanism that will assure financial support for the DSM programs, while not adversely affecting Empire financial profile. As proposed, Empire's initial DSIM will include these incentives based on the standard performance values established using the EM&V on existing Empire DSM programs and those values used in the DSM program screening for the new DSM programs being proposed as part of Empire's MEEIA filing. These critical values (standard performance) will be refined and adjusted as a result of future EM&V, and considered for use in future periodic DSIM filings. In addition, the initial EM&V results will be used to adjust Empire's incentive accruals for past periods (retrospective).

    This variance is critical to the continuation of existing DSM programs and 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 million in earnings during the five years following program implementation absent the requested variance. This potential loss in 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 proper match between costs and revenues.

- Pursuant to 4 CSR 240-20.093(13), Empire requests a variance in the definition of utility incentive, 4 CSR 240-20.093(1) (Q) and (EE), so that the definition includes the ability to earn carrying costs on Empire's actual investment in DSM in addition to a portion of the net DSM benefits.
  - As proposed, Empire is seeking the approval of a carrying cost component based upon the most recent rate of return approved by the Commission, adjusted by an additional 200 basis points to the authorized return on common equity. This incentive component will only be applied to actual DSM program investments made by Empire.

The DSM incentive 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 incentives will be recorded in Account 182318 as incurred or earned. DSIM Rider revenue will be recorded monthly in a separate revenue account.

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 is currently in the process of installing an upgrade to its accounting system. Empire plans to utilize the following accounting components to track and classify its future 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:

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.

(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 and incentive mechanism essentially supports Empire's existing financial profile when compared to the current recovery mechanism which includes no 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 same level of program costs, Empire's expected earnings levels would decline by around six (6) percent by the third 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 incentives. Empire's DSIM proposal includes incentives, while the existing 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 make Home Performance with ENERGY STAR® available to their customers.

SUMMARY OF PROPOSED DSM PROGRAMS

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

Program	Est. Participants First 3 years	Est. Cumulative Savings-kWh First 3 Yrs	Est. Cumulative Savings-KW First 3 years	Est. Program Costs-First 3 Years
Residential High Efficiency Lighting	217,500	18,294,369	1,363	$1,032,261
ENERGY STAR Appliances	5,775	913,713	98	$195,743
Refrigerator Recycling	2,400	4,077,493	665	$500,436
High Efficiency Cooling Rebate	5,708	10,864,663	5,438	$2,041,139
Home Energy Comparison Report	37,500	9,662,920	90	$465,400
ENERGY STAR New Homes	750	5,258,121	612	$2,086,191
Home Performance with Energy Star	6,000	5,259,892	613	$1,075,206
Low Income Weatherization	1,425	5,728,178	666	$2,082,786
Low Income New Homes	125	561,802	65	$118,131
C&I Energy Efficiency Rebate-Custom	300	13,435,871	4,053	$2,835,006
C&I Energy Efficiency Rebate-Prescriptive	450	10,223,882	2,254	$1,582,503
Building Operator Certificate	210	3,145,860	648	$169,901
Interruptible Service Rider	85	0	46,548	$348,081

As proposed, Empire's DSM programs are expected to produce annual kWh savings of 0.30 percent in year 1 increasing to around 1.2 percent by Year 3. The annual demand savings with the portfolio is expected to 0.6 percent in Year 1 increasing to 2.8 percent by Year 3. These results are compatible with the Commission's MEEIA rule for 2012 through 2014, which specify annual energy savings goals of 0.3 percent in 2012 increasing to 1.5 percent by 2014. 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 over $6.0 million, or four (4) 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 591,000 megawatt-hours or the same energy used by approximately 41,000 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 3.3 percent or over $4 per month after 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 rider. The required general rate case filing will enable Empire to synchronize the various DSM program components such as program costs, 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 rider proposed by the Company and the incentive components in the rider 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 incentive components, is rejected by the Commission, Empire will be forced to withdraw its plan to expand its DSM portfolio due to the adverse financial impacts the expansion would have on its financial profile. The Commission's MEEIA rules attempted to take into account that timely DSM cost recovery under the existing cost recovery process represented a significant barrier to the implementation of utility sponsored DSM and published a 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 through the volume of electricity sold. Company sponsored DSM at any level will reduce the volume of electricity sold and, in effect, deny Empire an opportunity to recover its fixed costs unless defined utility incentives are made part of DSM program cost recovery. Empire's DSIM proposal, including the 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 Existing DSM Programs
K	Agreement EO-2011-0066
L	Standardized Performance Values
M	Estimated Program Savings