Exhibit No.:	
Issues:	Demand-Side Programs Investment Mechanism
Witness:	John A. Rogers
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Surrebuttal Testimony
File No.:	EO-2012-0142
Date Testimony Prepared:	May 4, 2012

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

SURREBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2012-0142

Jefferson City, Missouri
May 2012

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Filing to Implement Regulatory Changes Furtherance of Energy Efficiency as allowed by MEEIA	)))))	File No. EO-2012-0142

AFFIDAVIT OF JOHN A. ROGERS

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

John A. Rogers, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 30 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

John A Rogers
John A. Rogers

Subscribed and sworn to before me this 4th day of May, 2012.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086

Susan L Sundermeyer
Notary Public

Table of Contents

SURREBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2012-0142

SURREBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2012-0142

Q. Please state your name and business address.

A. My name is John A. Rogers, and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. What is your present position at the Missouri Public Service Commission ("Commission")?

A. I am a Utility Regulatory Manager in the Energy Unit of the Regulatory Review Division.

Q. Are you the same John A. Rogers that filed rebuttal testimony in this case on April 13, 2012?

A. Yes, I am.

Q. Would you please summarize the purpose of your surrebuttal testimony?

A. I discuss certain rebuttal testimony of other parties' witnesses in this case concerning the following:

1. Use of net-to-gross ("NTG") ratios from evaluation, measurement and verification ("EM&V") when estimating annual energy and demand savings;

2. Annual energy and demand savings targets for Union Electric Company d/b/a Ameren Missouri's ("Ameren Missouri's" or "Company's") demand-side management ("DSM") programs;

3. Goals in Rule 4 CSR 240-20.094(2);

4. Throughput incentive and throughput disincentive;

5. Performance incentive;

6. Recovery of costs from customers that opt-out of participating in Ameren Missouri's DSM programs; and

7. Statewide stakeholder collaborative.

Staff's revised recommendations concerning certain MEEIA[1] rules requiring actions or decisions by the Commission

Q. As a result of reviewing the rebuttal testimony of other parties or further consideration, is Staff revising any of its recommendations in this case?

A. Yes. Staff is revising two of its recommendations and is adding one recommendation.

Concerning Rule 4 CSR 240-20.094(2)(A) and (B), Staff is revising its recommendation in my rebuttal testimony (third recommendation) to:

3. The Commission approve Ameren Missouri's performance incentive in the Company's Figure 2.5 for which percent of MWh target is based on cumulative energy savings measured through retrospective EM&V relative to a Commission-approved cumulative energy savings target contained in Schedule JAR-6 of the rebuttal testimony of John A. Rogers.

Concerning Rule 4 CSR 240-20.094(3), Staff is revising its recommendation in my rebuttal testimony (fourth recommendation) to:

[1] The Commission's rules promulgated as a result of the Missouri Energy Efficiency Investment Act of 2009 ("MEEIA") (Section 393.1075, RSMo, Supp. 2011) include Rules 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094.

4. The Commission find the level of Ameren Missouri's proposed EM&V budget inadequate and not supported by best evaluation practices in the electric industry, and order Ameren Missouri to submit a revised and enhanced EM&V plan with an average annual spending level of approximately 5% of its total demand-side program plan budget.[2]

Concerning Rule 4 CSR 240-20.094(2)(A) and (B), Staff is adding one new recommendation (third recommendation):

3. The Commission order Ameren Missouri to provide its reason for not continuing to provide a proven DSM program (e.g., Social Marketing Distribution program) with such a high TRC.[3]

Use of NTG ratios from EM&V when estimating annual energy and demand savings

Q. What are NTG ratios?

A. They are accurately described by NRDC[4] witness Philip Mosenthal who provides the following explanation in his rebuttal testimony:

> Net-to-gross ratios generally adjust for two primary things: free-ridership and spillover. Free riders are customers who participate in a program but who would have installed the efficiency measure anyway. As a result, a pure free rider does not actually create any new (or "net") savings compared to the reference case of no DSM program because by definition they would have installed the measure anyway. Spillover refers to customers who were influenced by the program (either in the short or long term) to save energy, although did not directly participate in a program and were not tracked and accounted for in program savings data. For example, a customer may choose to install a high efficiency measure because of vendor recommendations and program marketing that are due to the program strategies, but may never actually complete a rebate form and get counted by the program tracking system. To estimate the actual net savings attributable to the DSM program (compared to what would have occurred if the program did not exist), the gross

[2] *Surrebuttal testimony of Hojong Kang,* p. 2.
[3] *Surrebuttal testimony of Hojong Kang,* p. 2.
[4] Mr. Mosenthal presents testimony on behalf of the National Resource Defense Council ("NRDC"), Sierra Club, and Renew Missouri.

> tracked savings from all the measures installed in the program must be adjusted for these factors.[5]

Q. How does Ameren Missouri propose to use NTG ratios?

A. Ameren Missouri proposes to use a NTG ratio of 1.0 when estimating the annual energy (kWh) and demand (kW) savings for each of its proposed DSM programs and when determining the "actual" annual energy and demand savings for measuring the performance results of the DSM programs that are used in its proposed demand-side programs investment mechanism ("DSIM").

Q. What does a NTG ratio of 1.0 mean?

A. It could mean that there are no free-riders or spillover or that the free-rider effect exactly offsets the spillover effect. If there are free-riders and no spillover, or if the effect of free-riders is greater than the effect of spillover, the NTG ratio would be less than one. If there are no free-riders, but there is spillover, or if the effect of free-riders is less than the effect of spillover, the NTG ratio would be greater than one.

Q. Should the Commission be concerned about Ameren Missouri's assumption that the NTG ratios are equal to 1.0 when estimating annual energy and demand savings for each of its proposed DSM programs?

A. Yes, it should. Staff agrees with the following discussion, concerns and recommendations regarding NTG ratios Mr. Mosenthal provides his rebuttal testimony:

> Q. Can you provide an example of how deeming of a single 1.0 NTG ratio for all programs and measures in DSIM creates perverse incentives?
>
> A. Yes. Different programs, technologies and strategies will result in different NTG ratios, and utilities delivering programs can have significant influence over ultimate NTG ratios, even within a specific market, technology or program. For example, compact fluorescent lamp (CFL) promotions often have low NTG ratios compared with some other programs or measures. For

[5] *Rebuttal testimony of Philip Mosenthal,* p. 11, l. 13 through p. 12, l. 6.

example, in Massachusetts utilities apply a NTG ratio of only 0.43 for standard CFLs in a program very similar to Ameren [Missouri]'s.[6] While they are still cost-effective and worthwhile to capture, because the market has significantly transformed in recent years, a large portion of participants are likely to be free riders who would have purchased the CFLs anyway. On the flip side, LED lamps are a relatively new technology, are significantly more expensive than CFLs, and enjoy much less customer awareness. As a result, LED lamp promotion would likely have a very high NTG ratio. LED lamps also offer significant cost-effective efficiency, with the promise that programs focused on this technology can spur even greater innovation and price declines over time, ultimately resulting in greater and more cost-effective savings.

Under the current DSIM, Ameren [Missouri] would count a kWh of gross savings equally from these two technologies. However, if the actual NTG ratios for CFLs was 0.43 and for LEDs 1.0, then each kWh of gross LED savings would actually be worth more than twice as much to ratepayers and society, and result in more than twice as much lost revenue to Ameren [Missouri]. However, because CFLs are cheaper and savings from them are easier to capture at this stage Ameren [Missouri] would have a perverse incentive to pursuing more CFLs at the expense of efforts to promote LEDs, thereby resulting in lower overall net benefits to ratepayers but likely higher earnings to Ameren [Missouri]. Because of Ameren [Missouri]'s approach of only counting gross savings, under this scenario Ameren would recover more than double the actual lost revenue for every kWh associated with additional CFLs (over and above the proportional amount assumed in Ameren [Missouri]'s plan), possibly resulting in a windfall to Ameren [Missouri] under DSIM.

While the above is just one example, there are numerous ways a utility can influence NTG ratios. As a result, *rewarding the utility financially* for *only gross rather than net savings can encourage a utility to pursue gross savings that actually are less worthwhile in terms of net savings, or even intentionally target free riders which would drive down actual NTG ratios. Because actual net savings drive lost margins, Ameren [Missouri] would benefit from collecting DSIM on gross savings but actually minimizing the true net savings. I am not suggesting Ameren [Missouri] has any intent to do this, or that it would. However, I believe it is bad policy to create perverse incentive, and ultimately unfair to utility staff, who will naturally feel some conflict between maximizing overall societal benefits versus maximizing shareholder earnings.*[7]

(Emphasis added)

[6] Massachusetts Electric and Gas Energy Efficiency Program Administrators (October 2011), *Massachusetts Technical Reference Manual for Estimating Savings from Energy Efficiency Measures, 2012 Program Year – Plan Version*.

[7] *Rebuttal testimony of Philip Mosenthal,* p. 13, l. 1 through p. 14, l. 18.

Q. Does Mr. Mosenthal's rebuttal testimony concerning NTG ratios relate to any of Staff's recommendations presented in its rebuttal testimony?

A. Yes. The following recommendations in my rebuttal testimony are all sensitive to NTG ratios:

- Recommendations 1 and 2 concerning Rule 4 CSR 240-20.094(2)(A) and (B);[8]
- Recommendations 2 and 3 concerning Rule 4 CSR 240-20.094(3);[9] and
- Recommendation 2 concerning Rule 4 CSR 240-20.093(2)(C).[10]

Q. Do other Staff witnesses provide testimony on the importance of using NTG ratios based on full EM&V reports to verify DSM program energy and demand savings?

A. Yes. In his surrebuttal testimony in this case, when responding to the rebuttal testimonies of witnesses for NRDC, Missouri Department of Natural Resources ("DNR") and Office of the Public Counsel ("OPC"), Staff witness Michael L. Stahlman addresses the importance of NTG ratios from full EM&V reports for verifying DSM program energy and demand savings.

Q. How are NTG ratios best determined?

A. NTG ratios can only be accurately estimated from a full EM&V that is purposely designed to collect information for each program regarding free riders and that are conducted by an independent, knowledgeable evaluator.

Q. Why are NTG ratios from full EM&V reports so important to planning for and evaluating the energy and demand saving of DSM programs under the MEEIA?

A. There are three reasons. First, the MEEIA provides that the Commission shall "provide timely earnings opportunities associated with cost-effective measurable and

[8] *Rebuttal testimony of John A. Rogers*, p. 3, l. 25 through p. 4, l. 9.
[9] *Rebuttal testimony of John A. Rogers*, p. 5, l. 12 through p. 6, l. 2.
[10] *Rebuttal testimony of John A. Rogers*, p. 9, lines 6 – 10.

verifiable efficiency savings."[11] Upon advice from Staff counsel, based on how the Commission has implemented this statutory requirement in its rules, the Commission has interpreted this statutory language to mean that any earnings opportunities must result from measurable and verifiable efficiency savings. To assume that all NTG ratios are equal to 1.0 does not meet the Commission's interpretation of the statutory requirement that an earnings opportunity result from measurable and verifiable efficiency savings because, as even Ameren Missouri acknowledges, the NTG ratios from the first round of EM&V for its current programs are less than 1.0.[12] Simply counting measures for which rebates have been paid and then assuming a NTG ratio equal to 1.0 does not come close to meeting the statutory requirement for determining efficiency savings. Only through a full EM&V can actual efficiency savings be measured and verified and then used to determine an appropriate earnings opportunity. The MEEIA requires that, in order to balance the risk and reward for both the Company and for its customers, the efficiency savings results from EM&V must be used to determine earning opportunities.

Second, this is Ameren Missouri's first MEEIA filing. If the Commission approves the use of assumed NTG ratios equal to 1.0 in this first MEEIA case, the Commission, the Company and all the parties will be deprived of the opportunity to learn from a more rigorous EM&V process at the outset of implementing DSM programs under the MEEIA and to understand exactly how EM&V may or may not impact efficiency savings for use in planning for and evaluating the results of DSM programs.

Ameren Missouri proposes to reduce its annual EM&V budgets for the three program years to 2%, 2% and 5%, respectively, which are at or below the maximum 5% budget limit

[11] Section 393.1075. 3. (3).
[12] *2013 – 2015 Energy Efficiency Report*, Table 3.9.

required by rule.[13] Mr. Stahlman discusses six key components that make up the NTG ratios which should be considered and which may impact the actual efficiency savings that result from a comprehensive EM&V. However, Table 3.9 of Ameren Missouri's *2013 – 2015 Energy Efficiency Plan* indicates only free ridership and spillover have been identified in the previous Ameren Missouri EM&V reports, and the impact of spillover has been measured for only the four Business programs.[14] There is no indication Ameren Missouri's EM&V process even attempted to evaluate and measure the impacts of installation rate, persistence/failure, rebound effect, and take-back effect Mr. Stahlman discusses in his surrebuttal testimony.

Third, if Ameren Missouri and other electric utilities in Missouri engage in a rigorous EM&V process the results can be expected to significantly add to the learning experience and information necessary to develop a Missouri statewide technical resource manual ("TRM").[15]

Annual energy and demand savings targets of Ameren Missouri's DSM programs

Q. What are the recommendations of the other parties for annual energy and demand savings targets for Ameren Missouri's DSM programs?

A. NRDC witness Mr. Mosenthal recommends "the Commission adopt Ameren [Missouri]'s goals as expressed in MWh and peak demand impacts, but stated as net savings."[16]

OPC witness Ryan Kind states the following:

> The performance incentive mechanism should be based upon: (a) a threshold amount of actual achieved annual net benefits below which no incentive is earned, (b) a planned amount equal to the estimated amount of *annual net*

[13] *2013 – 2015 Energy Efficiency Plan*, P. 110, lines 4 – 8. The 5% budget limit is required by 4 CSR 240-20.093(7)(A).
[14] *2013 -2015 Energy Efficiency Plan*, Table 3.9.
[15] 4 CSR 240-20.094(8)(B) states: "State-Wide Collaboratives. Electric utilities and their stakeholders shall form a state-wide advisory collaborative to: 1) address the creation of a technical resource manual that includes values for deemed savings, …"
[16] *Rebuttal testimony of Philip Mosenthal*, p. 22, lines 10 – 11.

> *benefits* from the DSM plan, and (c) a cap (based on a high level of performance in achieving net benefits relative to the *expected level of annual net benefits in the DSM plan*) that places a limit on the total amount of shareholder incentive that could be awarded to the Company.[17]
>
> (Emphasis added)

DNR witness Dr. Adam Bickford states, "There are straightforward evaluation methodologies to identify rates of free ridership, but there are no straightforward and valid methods for identifying rates of spillover. Because of this asymmetry at the level of measurement, net-to-gross ratios may be biased downward, meaning that accounting for a net-to-gross ratio may underestimate savings. Given the difficulty of accurately estimating both the free ridership and spillover components of the net-to-gross ratio, MDNR can support Ameren [Missouri]'s theoretical argument for setting program level net-to-gross ratios to 1.0"[18]

Q. How do their recommendations for annual energy and demand savings targets for Ameren Missouri's DSM programs compare to Staff's recommendations?

A. Schedule JAR-6 of my rebuttal testimony provides Staff's recommended annual energy and demand savings targets for each of Ameren Missouri's proposed DSM programs. Schedule JAR-6 includes annual "net" energy and demand savings consistent with Staff's recommendation that the demand-side program plan for Ameren Missouri's proposed DSM programs include estimates of annual energy and demand savings through the use of NTG ratios from EM&V reports.[19]

Only Staff is recommending that the "amounts" of the annual energy and demand savings in Ameren Missouri's demand-side program plan be reduced to reflect the use of

[17] *Rebuttal Testimony of Ryan Kind,* p. 26, lines 7 – 13.
[18] *Rebuttal testimony of Adam Bickford,* p. 17, lines 5 – 7.
[19] *Rebuttal testimony of John A. Rogers,* p. 28, lines 9 – 13.

NTG ratios from EM&V reports. Mr. Mosenthal and Mr. Kind recommend that the "amounts" of the annual energy and demand savings in Ameren Missouri's demand-side program plan remain the same and be stated as "net" savings, and Dr. Bickford recommends that the "amounts" of the annual energy and demand savings in Ameren Missouri's demand-side program plan be stated as "gross" savings.

Q. How would the Company's estimates of the costs of its proposed DSM programs be impacted by the recommendations of Staff and other parties concerning the annual energy and demand savings targets for those programs?

A. The targets recommendations of Staff and DNR would not cause Ameren Missouri to change its costs estimates for its proposed DSM programs. However, if the targets recommendations of NRDC or OPC are adopted Ameren Missouri would need to increase its DSM programs' costs estimates, because additional program spending will be necessary to cause the proposed "gross" energy and demand savings amounts based on a NTG ratio equal to 1.0 to become "net" energy and demand savings amounts based on a NTG ratio for DSM programs from past EM&V reports.

Q. Why should the Commission accept Staff's recommendation for determining annual energy and demand savings targets for DSM programs the Commission approves for Ameren Missouri under the MEEIA?

A. Staff's recommendation does not change the amount of energy and demand savings the Company proposes to achieve, only the way the amount of savings is expressed, i.e, as net savings and not gross savings. The recommendations of other parties will require that the Company change the amount of net savings it proposes to achieve.

Further, Ameren Missouri used a "bottom-up" approach[20] to analyze and develop its demand-side program plan.[21] This bottom-up approach included the use of the DSMore® model to determine at the program level the annual energy and demand savings, and the results of the cost-effectiveness tests. To implement Staff's recommendation requires only that the NTG ratios used as inputs into the DSMore® model be changed to recalculate the annual energy and demand savings of each program. NRDC's and OPC's recommendations would require not only that the NTG ratios for each DSM program be changed in the DSMore® model but also that an "iterative" approach of rerunning the DSMore® model with varying DSM programs' costs to "back into" the annual energy and demand savings that are stated as "net" savings. This additional work is not necessary for the Commission to approve the annual energy and demand savings targets for the Company's Commission-approved DSM programs if the Commission approves the annual "net" energy and demand savings in Schedule JAR-6 of my rebuttal testimony.

Goals in Rule 4 CSR 240-20.094(2)

Q. NRDC witness Mr. Mosenthal states on page 9, lines 16-19, of his rebuttal testimony, the following: "The *MEEIA's default targets* for the first 3 years are 0.3%, 0.5% and 0.7%, or a cumulative savings of 1.5% by the end of the 3-year period. Ameren [Missouri]'s cumulative proposal is 2.1% and it exceeds the *MEEIA targets* in each year." (Emphasis added). Mr. Mosenthal further states, on page 10, lines 3-5, of his rebuttal testimony, the following: "I note that Ameren [Missouri]'s proposal falls short of the coincident peak demand MEEIA savings goals. While Ameren [Missouri] is planning 0.5%,

[20] 2013 – 2015 Energy Efficiency Plan, pages 40 – 50, Program Analysis.
[21] 4 CSR 240-20.094(1)K): Demand-side program plan means a particular combination of demand-side programs to be delivered according to a specified implementation schedule and budget.

0.7% and 1.0% in incremental kW savings per year, the *MEEIA rule targets* are 1.0% each year." (Emphasis added). Do you agree with him?

A. What Mr. Mosenthal identifies as "targets" in the MEEIA rules are, instead, "soft goals" or guidelines. The Commission has made it abundantly clear the "soft goals" in Rule 4 CSR 240-20.094(2)(A) or (B) are not mandatory and are to be used by the Commission as only one guideline to review progress toward an expectation that the electric utility's demand-side programs can achieve a goal of all cost-effective demand-side savings. In the Commission's *Report and Order* concerning Rule 4 CSR 240-20.094 in File No. EX-2010-0368, the Commission states in its COMMENT # 7 – GUIDELINES TO REVIEW PROGRESS TOWARD AN EXPECTATION THAT THE ELECTRIC UTILITY'S DEMAND-SIDE PROGRAMS CAN ACHIEVE A GOAL OF ALL COST-EFFECTIVE DEMAND-SIDE SAVINGS (GENERALLY): [22]

> RESPONSE: Rulemaking is an exercise of the Commission's quasi-legislative power. Interim goals are well within the rulemaking authority granted to the commission in 393.1075.11. An administrative agency has reasonable latitude regarding what methods and procedures to adopt in carrying out its statutory duties. The legislative delegation of powers and duties includes by implication everything necessary to carry out the power or duty and make it effectual or complete. "Where the grant of power is clear, the details for its exercise need be given only within practical limits. The rest may be left to the administrative agency delegated the duty to accomplish the legislative purpose." *AT&T v. Wallmann*, 827 S.W2d 217, 224-225 (Mo App. WD 1992). Moreover, the "soft-goals" at issue are guidelines to review progress and are not mandatory.
>
> During the workshops for the proposed rule, the comment period and the rulemaking hearing, information regarding the targets and goals employed in other states was presented to the commission, including, but not limited to, targets and goals in the states of Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Ohio and Wisconsin. Based upon this information, and the level of DSM currently implemented by Missouri utilities, the commission's staff believed that the initial goals supported by MDNR, GRELC and NRDC were too aggressive and it reduced the goals to the current levels delineated in the proposed rule. As the rules are currently drafted, if the annual incremental and

[22] *Final Order of Rulemaking*, dated March 14, 2011, File No. EX-2010-0368, pages 11 – 12.

> cumulative energy and demand savings differ from the results of the utility's potential study, the commission has the ability to use the utility-specific results of the potential study as a guideline to review progress toward an expectation that the electric utility's demand-side programs can achieve a goal of all cost-effective demand-side savings. If the goals in the proposed rule are used as opposed to the utility's own potential study, they too are merely a guideline to review progress. Because the goals are not mandatory, OPC's concern about them being too steep is unfounded. The commission will make no changes to the language identified by these comments in the proposed rule in relation to the goals contained in 4 CSR 240-20.094(2)(A) or (B).

Therefore, the Commission has no obligation under its MEEIA rules to use the "soft goals" in Rule 4 CSR 240-20.094(2)(A) or (B) as "MEEIA's default targets" or "minimum targets" as Mr. Mosenthal asserts in his rebuttal testimony.

Throughput incentive and throughput disincentive

Q. Does the OPC oppose the Company's proposed 15.4% shared net benefits component?

A. Yes. OPC witness Mr. Kind recommends, "The Commission should reject the Company's proposal for a shared benefits incentive, because it: (1) is designed to collect 100% of lost revenues regardless of the actual amount of any deficiency in recovering fixed costs, … "[23]

Q. Does Mr. Kind recommend that the Commission require the Company modify its performance incentive in a way to address Ameren Missouri's lost revenues due to its DSM programs?

A. Yes. Mr. Kind's recommendation includes:

> The Company should establish a separate, transparent lost revenues recovery mechanism designed to recover those lost revenues that are allowed by the DSIM rules, i.e., those lost revenues associated with the utility's demand-side

[23] *Rebuttal testimony of Ryan Kind*, p. 3, lines 27 – 29.

programs that occur when sales turn out to be lower than the sales used to set rates in the most recent rate case.[24]

Q. What DSIM rules is Mr. Kind referring to in his rebuttal testimony?

A. Rule 4 CSR 240-20.093(2)(G)1.[25]

Q. Has Ameren Missouri requested a lost revenue component of a DSIM as defined in Rule 4 CSR 240-20.093(2)(G)1?

A. No.

Q. Is Ameren Missouri required to request a lost revenue component of a DSIM as defined in Rule 4 CSR 240-20.093(2)(G)1?

A. No.

Q. Does Staff recommend that Ameren Missouri's Commission-approved DSIM in this case include a lost revenue component of a DSIM?

A. No.

Q. Why not?

A. Staff's recommendation is that the Commission reject Ameren Missouri's proposed 15.4% of shared net benefits incentive component of its DSIM and approve a mechanism to allow the Company to book a regulatory asset equal to 15.4% of its net DSM benefits, with the amount of the regulatory asset to be collected in rates subject to true-up based on actual net shared benefits determined through an EM&V process andis designed to address the throughput disincentive for the Company and in the process account for any lost revenues – as defined in the MEEIA rules – experienced by the Company.

Q. What is the "throughput disincentive"?

[24] *Rebuttal testimony of Ryan Kind*, p. 4, lines 26 – 30.
[25] *Rebuttal testimony of Ryan Kind*, p. 3, lines 3 – 8.

A. Staff is using that term as Ameren Missouri describes it on page 18 of its *2013 – 2015 Energy Efficiency Plan*. That description follows: [26]

> Ignoring the customer charge, for the sake of illustration, it is important to understand that outside of a rate case, in a future period, the utility's actual revenue will be determined by the variable rate (developed based on the snapshot of test year sales), multiplied by the actual amount of electricity sales. Under traditional ratemaking, if retail electricity sales increase beyond the level used to develop the utility's rates, the utility keeps the additional revenue. This creates an incentive for the utility to maximize the "throughput," or sales. Typically, the additional revenues are not simply a bonus to the utility but rather an offset to the rising costs of service, like wages and general material costs, between rate cases. Thus, a traditional ratemaking framework does not align the utility's financial incentives with helping customers use energy more efficiently, because cost recovery and fair returns on investment are achieved by selling volumes of electricity.
>
> The implementation of energy efficiency programs causes a decrease in electricity sales, which causes the utility to lose revenue that it would have otherwise collected. But even more importantly, it prevents the utility from recovering a portion of its fixed costs. Any increase in regulatory lag and/or time between rate cases amplifies the disincentive for a utility to support a reduction in sales volume[.] It is also important to recognize that utility sponsored programs are only one source of fixed cost recovery erosion. To fully align utility incentives such that the utility can partner with third party energy efficiency or conservation efforts, the throughput disincentive must be adequately addressed.

Q. Will Staff's recommendation that the Commission approve a mechanism to allow the Company to book a regulatory asset equal to 15.4% of its net DSM benefits, with the amount of the regulatory asset to be collected in rates subject to true-up based on actual net shared benefits determined through a full EM&V process address the Company's throughput incentive?

A. No. A performance incentive[27] component of a DSIM is necessary to address the Company's throughput incentive.

[26] *2013 – 2015 Energy Efficiency Plan*, p. 18, lines 4 – 24.
[27] 4 CSR 240-20.093(2)(H) provides guidance on a utility incentive component of a DSIM.

Performance incentive

Q. What do NRDC, OPC and DNR recommend regarding Ameren Missouri's proposed performance incentive component of its DSIM?

A. NRDC recommends "the total present value three-year [performance incentive] award to Ameren [Missouri] for meeting 100% of goals would be $10.2 million before taxes. This is roughly 40% of what Ameren [Missouri] has proposed."[28] At a comparable 100% performance level, Ameren Missouri's proposed performance incentive would be $32 million.[29]

OPC recommends a planned net benefits performance incentive of $13.4 million[30] for 100% achievement of approved targets compared to Ameren Missouri's proposed performance incentive award of $32 million.

DNR endorses an incentive structure that expresses award levels in terms of a percentage of net shared benefits. This percentage of net benefits retained would be translated to dollars once the total dollar amount of net benefits has been verified by EM&V. However, for purposes of this first round of MEEIA filings and to achieve the significant public benefits from the DSM programs, DNR would not oppose this component of Ameren Missouri's proposal on a trial basis.[31]

Q. What is Staff's recommendation?

A. Staff recommends that the Commission approve Ameren Missouri's proposed performance incentive component of its DSIM.[32]

[28] Rebuttal testimony of Philip Mosenthal, p. 28, lines 11 – 16.
[29] 2013 – 2015 Energy Efficiency Plan, Table 2.3, value of $32 million for 2016.
[30] *Rebuttal testimony of Ryan Kind*, p. 32, Table 6
[31] *Rebuttal testimony of Adam Bickford*, p. 25, lines 2- 3.
[32] *Rebuttal testimony of John A. Rogers*, p. 9, lines 11 – 12.

Q. Why are NRDC's and OPC's recommendations so different from those of Staff, DNR and Ameren Missouri?

A. Both NRDC and OPC structure their award levels based on a percentage of the costs of the DSM programs based on the practice in other states of basing the performance award amount on a percentage of costs of the DSM programs. NRDC witness Mr. Mosenthal states, "Under my proposal if Ameren [Missouri] achieved 100% of its goals spending exactly its budget, its [performance incentive] earnings would be 7.6% of program costs. This is right in the range of most performance incentives in North America, many of which vary from 5-10% of program costs."[33]

Mr. Kind provides OPC's proposed incentive mechanism in Table 4 of his rebuttal testimony, and proposes an annual incentive earned (percent of budget) of 10% for the planned 100% performance level. Further, Mr. Kind provides Table 1 in his rebuttal testimony to summarize the performance incentive mechanisms for 18 states that is contained in a survey performed by the American Council for an Energy-Efficient Economy ("ACEEE").[34]

Q. Does Staff agree with the approach of basing the DSM program performance incentive award levels for Ameren Missouri on a percentage of the costs of the DSM programs?

A. Staff does not believe the award mechanisms of many other states are necessarily relevant for Missouri. As Missouri is taking its first steps forward under the MEEIA, it is useful to look to other states for their experience in such matters when evaluating DSIM proposals for Missouri. However, care must be taken to consider the

[33] *Rebuttal testimony of Philip Mosenthal*, p. 28, lines 18 – 21.
[34] Hayes, Nadel, Kushler, York, *Carrots for Utilities: Providing Financial Returns for Utility Investments in Energy Efficiency*, ACEEE, Report Number U111, January 2011.

"framework" for the energy policy and energy utility regulation within each state when considering a performance incentive mechanism for a utility in that state.

Q. Does Staff have information about the "framework" for the energy policy and energy utility regulation within different states?

A. Yes. It is presented in my attached Schedules JAR-1, JAR-2, JAR-3, JAR-4, JAR-5, JAR-6 and JAR-7.

Q. Why is Staff presenting this information?

A. Staff proposes the Commission and parties to this case consider this information when reviewing Ameren Missouri's performance incentive under the MEEIA.

Q. Would you provide an overview of the information in these schedules.

A. Schedules JAR-1, JAR-2, JAR-3, JAR-4 and JAR-5 include the following information for each of the 50 states:

- First column – *statewide average electricity prices* based on United States Energy Information Administration ("EIA") for 2009 total electricity industry average price;
- Second column – *states;*
- Third column – percentage of total possible score for *utility and public benefits fund efficiency programs and policies* components within the ACEEE 2011 Energy Efficiency Scorecard;[35]
- Fourth column – percentage of total possible score for *transportation, building energy code, combined heat and power, state government initiatives, and*

[35] American Council for an Energy-Efficient Economy, Report Number E115.

appliance efficiency standards components within the ACEEE 2011 Energy Efficiency Scorecard;

- Fifth column – identifies whether a state has an *energy efficiency resource standard ("EERS"), tailored utility energy and/or demand savings targets ("Targets"), or a combination of EERS and renewable energy standards ("EERS-RES")* within the ACEEE's report titled *Energy Efficiency Resource Standards: A Progress Report on State Experience*;[36]
- Sixth column – indicates whether a state has a fixed cost recovery mechanism for *decoupling ("Decoupling") or recovery of lost revenues ("Lost Rev.")* within The Edison Foundation – Institute for Energy Efficiency's report titled *State Electric Efficiency Regulatory Frameworks*, June 2011; and
- Seventh column - indicates whether a state has performance incentive mechanism within The Edison Foundation – Institute for Energy Efficiency's report titled *State Electric Efficiency Regulatory Frameworks*, June 2011.

Schedule JAR-1 rank orders the states based on the information in the other schedules that underlies an overall score on the ACEEE 2011Energy Efficiency Scorecard from high overall score to low overall score.

Schedule JAR-2 rank orders the states based on *statewide average electricity prices* ("Average Cents/kWh (1)") in the first column from high to low.

Schedule JAR-3 rank orders the states based on percentage of total possible score for *utility and public benefits fund efficiency programs and policies* ("Utility EE Index (2)") in the third column from high percentage to low percentage.

[36] American Council for an Energy-Efficient Economy, Report Number U112.

Schedule JAR-4 rank orders the states based on percentage of total possible score for *transportation, building energy code, combined heat and power, state government initiatives, and appliance efficiency standards* ("Non-Utility Index (3)") in the fourth column from high percentage to low percentage.

Schedule JAR-5 groups states that have Targets, EERS-RES, EERS or no energy efficiency standards.

Q. What observations do you make from Schedules JAR-1, JAR-2, JAR-3, JAR-4 and JAR-5?

A. I make the following observations from Schedule JAR-1:

- States with the higher overall scores on the ACEEE 2011 Energy Efficiency Scorecard tend to have very strong overall state level energy policy for EERS, Targets and/or EERS-RES, and for energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives;
- States with the lower overall scores on the ACEEE 2011 Energy Efficiency Scorecard tend to have weaker or no overall state level energy policy for EERS, Targets and/or EERS-RES, and for energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives; and
- Missouri scores 43 out of 50 on overall score for ACEEE 2011 Energy Efficiency Scorecard.

I make the following observations from Schedule JAR-2:

- The states with the highest energy prices have high scores on the ACEEE 2011 Energy Efficiency Scorecard and nearly all have very strong overall state level energy policy for EERS, Targets and/or EERS-RES, and for energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives;
- For the states with the lower energy prices, there is not a strong correlation with scoring on ACEEE 2011 Energy Efficiency Scorecard; or with the overall state level energy policy for EERS, Targets and/or EERS-RES; or with energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives; and
- Missouri's average energy price is one of the lowest in the country.

I make the following observations from Schedule JAR-3:

- For the states with higher scores for *utility and public benefits fund efficiency programs and policies* on the ACEEE 2011 Energy Efficiency Scorecard nearly all have very strong overall state level energy policy for EERS, Targets and/or EERS-RES, and for energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives;
- For the states with lower scores for *utility and public benefits fund efficiency programs and policies* on the ACEEE 2011 Energy Efficiency Scorecard nearly all have weak or no overall state level energy policy for EERS, Targets and/or EERS-RES, and for energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives; and

- Missouri's score for *utility and public benefits fund efficiency programs and policies* is one of the lower scores in the country.

I make the following observations from Schedule JAR-4:

- There tends to be a correlation between higher scores for *transportation, building energy code, combined heat and power, state government initiatives, and appliance efficiency standards* on the ACEEE 2011 Energy Efficiency Scorecard and overall state level energy policy for EERS, Targets and/or EERS-RES; or with energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives;
- States with low scores for *transportation, building energy code, combined heat and power, state government initiatives, and appliance efficiency standards* on the ACEEE 2011 Energy Efficiency Scorecard tend to have weak or no overall state level energy policy for EERS, Targets and/or EERS-RES but some have energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives; and
- Missouri's score for *transportation, building energy code, combined heat and power, state government initiatives, and appliance efficiency standards* is one of the lowest in the country.

I make the following observations from Schedule JAR-5:

- Half the states have energy policy for Targets, EERS or EERS-RES;
- Most states with energy policy for Targets, EERS or EERS-RES have energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives;

- There are many states with no energy policy for Targets, EERS or EERS-RES which still have energy regulatory policy for fixed cost recovery (decoupling or lost revenue recovery) and utility performance incentives; and
- Missouri is one of 25 states with no energy policy for Targets, EERS or EERS-RES.

Q. What do you conclude from your last answer?

A. There is a fairly strong correlation between high energy prices, high scores on the ACEEE 2011 Energy Efficiency Scorecard, strong energy policy for EERS, EERS-RES and Targets and strong energy regulatory structure for energy efficiency. In other words, high energy prices seem to lead states to enact strong energy policy for EERS, EERS-RES or Targets which leads states to approve strong energy regulatory structures that include decoupling, or lost revenue recovery and performance incentive.

Q. What do you conclude from your last answer with respect to the state of Missouri?

A. Missouri has low energy prices. Missouri has thus far lived up to its name as the "show-me state" when it comes to energy policy and energy regulation related to energy efficiency. The MEEIA is Missouri's first attempt to legislatively advance a policy for energy efficiency at the state level.

Q. As a result of your discussion of the "framework" for the energy policy and energy utility regulation, how do you respond to OPC witness Mr. Kind's and NRDC witness Mr. Mosenthal's recommendations that Ameren Missouri should receive 10% or 7.6% of DSM costs, respectively, as a performance incentive award for 100% achievement of its energy and demand savings targets?

A. Ameren Missouri should be allowed to receive a larger performance incentive award because:

- Missouri has no energy policy for EERS, Targets or EERS-RES;
- The MEEIA does not represent a mandate for Missouri's utilities to engage energy efficiency; and
- Nearly all of the states that Mr. Kind and Mr. Mosenthal use as surrogates for the proposed performance incentive mechanism for Ameren Missouri have decoupling, as shown state-by-state in Schedule JAR-8.

Q. What is decoupling?

A. Decoupling weakens or eliminates the relationship between sales and revenue (or more narrowly, the revenue collected to cover fixed costs) by allowing a utility to adjust rates to recover authorized revenues independent of its levels of sales.[37]

Q. Why is it appropriate for a utility that has decoupling to receive a lower performance incentive award?

A. Decoupling virtually guarantees that a utility will recover the level of fixed costs that it was approved to recover in rates in its last rate case, regardless of the levels of its volumetric sales of electricity. This alone is of significant value to the utility, and is the reason states with decoupling do not have to, and do not, provide more significant performance incentive awards to utilities that have decoupling.

Q. Do you have some quantitative examples of the relationship between lost recovery mechanisms and decoupling?

[37] *Aligning Utility Incentives with Investment in Energy Efficiency*, A Resource of the National Action Plan for Energy Efficiency, November 2007, p. 2-6.

A. Yes, I do. Schedule JAR-6 provides examples of lost revenue recovery mechanisms and decoupling for different levels of sales growth and different levels of energy savings from DSM programs. This schedule provides quantitative examples of the lost revenue that a utility would recover under Ameren Missouri's proposed lost revenue recovery mechanism, a lost revenue recovery mechanism as defined in 4 CSR 240-20.093(2)(G), and by decoupling.

Schedule JAR-7 provides examples of lost revenue recovery mechanisms and decoupling for different levels of sales growth and different levels of energy savings from DSM programs. This schedule provides quantitative examples of the lost revenue that a utility would recover under Ameren Missouri's proposed lost revenue recovery mechanism, a lost revenue recovery mechanism as defined in 4 CSR 240-20.093(2)(G), and by decoupling. The base energy growth rate of 0.75%, the low energy growth rate of 0.50% and the high energy growth rate of 1.00% all come from Ameren Missouri's Chapter 22 annual update filing in File No. EO-2012-0357.

Q. What do you observe from Schedules JAR-6 and JAR-7?

A. Under its proposed performance incentive mechanism, Ameren Missouri will recover lost revenue resulting from energy savings due to its DSM programs regardless of its actual energy sales. However, Ameren Missouri is not afforded the "assurance" it will recover the level of fixed cost that the Commission approved for it to recover in its last rate case. Specifically, if energy sales are declining (negative growth) for any reason (e.g., weather, poor economy, large energy savings due to state energy policy related to building codes, combined heat and power state government initiatives, or appliance efficiency

standards) Ameren Missouri will not recover the level of fixed cost that the Commission approved for it to recover in its last rate case.

Recovery of costs from customers that opt-out of participating in Ameren Missouri's DSM programs

Q. Who are opt-out customers?

A. Opt-out customer are customers of a utility who qualify and elect to not participate in DSM programs as permitted by section 393.1075 RSMo 2010, which, in pertinent part, states:

> 7. Provided that the customer has notified the electric corporation that the customer elects not to participate in demand-side measures offered by an electrical corporation, none of the costs of demand-side measures of an electric corporation offered under this section or by any other authority, and no other charges implemented in accordance with this section, shall be assigned to any account of any customer, including its affiliates and subsidiaries, meeting one or more of the following criteria:
>
> (1) The customer has one or more accounts within the service territory of the electrical corporation that has a demand of five thousand kilowatts or more;
>
> (2) The customer operates an interstate pipeline pumping station, regardless of size; or
>
> (3) The customer has accounts within the service territory of the electrical corporation that have, in aggregate, a demand of two thousand five hundred kilowatts or more, and the customer has a comprehensive demand-side or energy efficiency program and can demonstrate an achievement of savings at least equal to those expected from utility-provided programs.

Q. Does OPC witness Mr. Kind express an opinion on when opt-out customers should be exempted from paying the costs of DSM programs?

A. Yes, he testifies in his rebuttal testimony as follows:

> The exemptions in the MEEIA statute and rule for the costs of DSM programs offered "by any other authority" would only apply to programs offered under

some other authority when this occurs subsequent to the effective date of the new MEEIA statute.[38]

Q. Does the Staff agree with Mr. Kind concerning when opt-out customers should be exempted from paying the costs of DSM programs?

A. No.

Q. Why not?

A. Staff has been advised by its counsel that when the DSM program is created is irrelevant to qualification for the opt-out provision in the MEEIA or applicable MEEIA rule.[39] Counsel advises this interpretation is supported by restrictions in the statute such as that they must be of a certain size,[40] or have "a comprehensive demand-side or energy efficiency program and can demonstrate an achievement of savings at least equal to those expected from utility-provided programs." Thus, many customers eligible to opt-out must have already made expenditures and achieved savings - through their own initiatives – at least equal to the savings expected from utility-provided programs. These opt-out customers cannot benefit from the Company's demand-side programs – past or present – and should not have to pay for the Company's demand-side programs – past or present. While large customers with peak demand equal to or greater than 5 megawatts are not required to have a comprehensive demand-side or energy efficiency program and demonstrate an achievement of savings at least equal to those expected from utility-provided programs, such large customers are normally in very competitive industries and have already taken steps to gain efficiency savings in order to remain competitive.

[38] Rebuttal testimony of Ryan Kind, p. 8, lines 5 – 8.
[39] 4 CSR 240-20.094(6)(A).
[40] Opt-out customers are large customers who typically have self-directed energy efficiency programs.

Statewide stakeholder collaborative

Q. What are the requirements in the MEEIA rules concerning collaboratives?

A. Rule 4 CSR 240-20.094(8) states:

> Collaborative Guidelines.
> (A) Utility-Specific Collaboratives. Each electric utility and its stakeholders are encouraged to form a utility-specific advisory collaborative for input on the design, implementation, and review of demand-side programs as well as input on the preparation of market potential studies. This collaborative process may take place simultaneously with the collaborative process related to demand-side programs for 4 CSR 240-22. Collaborative meetings are encouraged to occur at least once each calendar quarter.
>
> (B) State-Wide Collaboratives. Electric utilities and their stakeholders are encouraged to form a state-wide advisory collaborative to: 1) address the creation of a technical reference manual that includes values for deemed savings, 2) provide the opportunity for the sharing, among utilities and other stakeholders, of lessons learned from demand-side program planning and implementation, and 3) create a forum for discussing state-wide policy issues. Collaborative meetings are encouraged to occur at least once each calendar year. Staff shall provide notice of the statewide collaborative meetings and interested persons may attend such meetings.

Q. Do any parties address collaboratives in rebuttal testimony?

A. Yes. NRDC witness Mr. Mosenthal discusses his experiences with state-wide collaborative in other jurisdictions. He states, that he

> "ha[s] been involved as a technical advisor in numerous collaboratives for more than 20 years, representing both utilities and non-utility parties. These have included everything from very formal, relatively 'binding' collaborative where all parties are committed to reach full consensus on issues before moving forward, to those that reflect more of a stakeholder advisory group that has the opportunity to review and express views on issues, but ultimately decisions are made by the program administrators."[41]

Mr. Mosenthal expresses that the Missouri collaborative has failed to provide an effective forum for energy efficiency policy issues and identifies three essential elements that have, thus far, been missing in Missouri: 1) clearly designated leadership, 2) lack of

[41] *Rebuttal testimony of Philip Mosenthal*, p. 37, lines 2 – 7.

Commission identified collaborative deliverables and associated timeline, and 3) infrequent meetings and conference calls.[42]

Q. Does Mr. Mosenthal provide any specific suggestions for an enhanced collaborative process in Missouri?

A. Yes. Mr. Mosenthal "encourage[s] the Commission to provide more specificity on the scope and expectations for an effective collaborative process similar to the directions provided by Commissions in other jurisdictions." He then makes five specific recommendations on pages 42 and 43 of his rebuttal testimony.

Q. What is Staff's response to Mr. Mosenthal's recommendations concerning a Missouri's state-wide collaborative?

A. Staff welcomes the ideas and suggestions of Mr. Mosenthal. However, the current MEEIA rules require only that a state-wide collaborative be formed and that collaborative meetings are encouraged to occur at least once each calendar year following notification provided by Staff. Through its Rule 4 CSR 240-20.094(8)(B), the Commission has chosen to not provide the prescriptive direction and requirements for the Missouri state-wide collaborative Mr. Mosenthal suggests and encourages. Since the May 30, 2011 effective date of the MEEIA rules, the focus of Missouri's electric utilities has been on preparing and making their first MEEIA filings[43] and not on the state-wide collaborative. There simply was not time to do both. Staff plans to provide notice of the next state-wide collaborative meeting following the conclusion of the three current MEEIA cases. Should Mr. Mosenthal not be in

[42] *Rebuttal testimony of Philip Mosenthal*, p. 40, lines 6 – 21.

[43] KCP&L Greater Missouri Operations Company's MEEIA application filing was made in File No. EO-2012-0009 on December 22, 2012. Ameren Missouri's MEEIA application filing was made in File No. EO-2012-0142 on January 20, 2012. The Empire District Electric Company's MEEIA application filing was made in File No. EO-2012-0206 on February 28, 2012.

attendance, Staff will encourage the electric utilities and their stakeholders to take Mr. Mosenthal's suggestions into consideration when the Missouri state-wide collaborative next meets.

Q. Do you have any further surrebuttal testimony?

A. No.

Summary of State Average Energy Prices, ACEEE Energy Efficiency Scorecard and Energy Efficiency Investment Policy

Rank Ordered By Overall Score on ACEEE Energy Efficiency Scorecard

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)
15.45	Massachusetts	93%	90%	EERS	Decoupling	Yes
13.24	California	88%	88%	EERS	Decoupling	Yes
15.52	New York	75%	77%	EERS	Decoupling	-
7.48	Oregon	68%	80%	Targets	Decoupling	-
12.75	Vermont	95%	50%	Targets	Decoupling	Yes
6.60	Washington	68%	68%	EERS	-	-
14.23	Rhode Island	93%	52%	EERS	Decoupling*	Yes
8.14	Minnesota	90%	50%	EERS	Decoupling*	Yes
18.06	Connecticut	60%	70%	-	Decoupling	Yes
13.08	Maryland	48%	70%	EERS	Decoupling	-
7.37	Iowa	70%	43%	Targets	-	-
8.14	Maine	53%	53%	Targets	-	-
21.21	Hawaii	60%	48%	EERS-RES	Decoupling	Yes
8.31	Colorado	55%	52%	Targets	Lost Rev.	Yes
14.52	New Jersey	43%	57%	-	Decoupling*	Yes
9.38	Wisconsin	58%	45%	EERS	Decoupling	Yes
6.77	Utah	60%	42%	-	Decoupling*	Yes*
9.08	Illinois	45%	52%	EERS	-	-
9.40	Michigan	50%	48%	EERS	Decoupling	Yes
9.56	Arizona	58%	43%	EERS	Decoupling*	Yes
15.13	New Hampshire	53%	45%	-	Decoupling*	Yes
10.36	Nevada	58%	37%	EERS-RES	Decoupling	-
9.01	Ohio	43%	45%	EERS	Lost Rev.	VPP
9.60	Pennsylvania	20%	57%	EERS	-	-
6.51	Idaho	45%	37%	-	Decoupling	Yes*
11.49	Florida	18%	52%	Targets	-	Yes*
8.48	North carolina	23%	48%	EERS-RES	Lost Rev.	Yes
8.09	New Mexico	25%	47%	EERS	Decoupling*	Yes
8.69	Tennessee	10%	55%	-	-	-
12.14	Delaware	13%	50%	-	Decoupling*	-
7.62	Indiana	33%	35%	EERS	Lost Rev.	Yes
9.86	Texas	15%	42%	EERS	-	Yes
8.93	Virginia	10%	40%	-	-	-
7.35	Montana	23%	30%	-	Decoupling*	Yes*
8.81	Georgia	8%	38%	-	-	Yes
6.52	Kentucky	18%	28%	-	Lost Rev.	Yes
8.83	Alaska	0%	37%	-	-	-
7.21	Nebraska	8%	28%	-	-	-
7.06	Louisiana	13%	25%	-	-	-
7.39	South Dakota	23%	17%	-	-	Yes
8.83	Alabama	13%	22%	-	-	-
7.35	Missouri	13%	20%	-	Lost Rev.	Yes
6.65	West Virginia	0%	28%	-	-	-
8.42	South Carolina	8%	22%	-	Lost Rev.	Yes
6.94	Oklahoma	13%	13%	-	Lost Rev.	Yes
7.98	Kansas	5%	15%	-	-	Yes*
8.85	Mississippi	3%	12%	-	-	-
6.08	Wyoming	0%	5%	-	-	-
6.63	North Dakota	0%	8%	-	-	-

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price
Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score
Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score
Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable energy std. (RES)
Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011
Note 6: An asterics "*" indicates policies which are "pending"

Schedule JAR-1

Summary of State Average Energy Prices, ACEEE Energy Efficiency Scorecard and Energy Efficiency Investment Policy

Rank Ordered By Total Average Energy Price (Cents per kWh)

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)
21.21	**Hawaii**	60%	48%	EERS-RES	Decoupling	Yes
18.06	**Connecticut**	60%	70%	-	Decoupling	Yes
15.52	**New York**	75%	77%	EERS	Decoupling	-
15.45	**Massachusetts**	93%	90%	EERS	Decoupling	Yes
15.13	**New Hampshire**	53%	45%	-	Decoupling*	Yes
14.52	**New Jersey**	43%	57%	-	Decoupling*	Yes
14.23	**Rhode Island**	93%	52%	EERS	Decoupling*	Yes
13.24	**California**	88%	88%	EERS	Decoupling	Yes
13.08	**Maryland**	48%	70%	EERS	Decoupling	-
12.75	**Vermont**	95%	50%	Targets	Decoupling	Yes
12.14	**Delaware**	13%	50%	-	Decoupling*	-
11.49	**Florida**	18%	52%	Targets	-	Yes*
10.36	**Nevada**	58%	37%	EERS-RES	Decoupling	-
9.86	**Texas**	15%	42%	EERS	-	Yes
9.60	**Pennsylvania**	20%	57%	EERS	-	-
9.56	**Arizona**	58%	43%	EERS	Decoupling*	Yes
9.40	**Michigan**	50%	48%	EERS	Decoupling	Yes
9.38	**Wisconsin**	58%	45%	EERS	Decoupling	Yes
9.08	**Illinois**	45%	52%	EERS	-	-
9.01	**Ohio**	43%	45%	EERS	Lost Rev.	VPP
8.93	**Virginia**	10%	40%	-	-	-
8.85	**Mississippi**	3%	12%	-	-	-
8.83	**Alaska**	0%	37%	-	-	-
8.83	**Alabama**	13%	22%	-	-	-
8.81	**Georgia**	8%	38%	-	-	Yes
8.69	**Tennessee**	10%	55%	-	-	-
8.48	**North carolina**	23%	48%	EERS-RES	Lost Rev.	Yes
8.42	**South Carolina**	8%	22%	-	Lost Rev.	Yes
8.31	**Colorado**	55%	52%	Targets	Lost Rev.	Yes
8.14	**Minnesota**	90%	50%	EERS	Decoupling*	Yes
8.14	**Maine**	53%	53%	Targets	-	-
8.09	**New Mexico**	25%	47%	EERS	Decoupling*	Yes
7.98	**Kansas**	5%	15%	-	-	Yes*
7.62	**Indiana**	33%	35%	EERS	Lost Rev.	Yes
7.48	**Oregon**	68%	80%	Targets	Decoupling	-
7.39	**South Dakota**	23%	17%	-	-	Yes
7.37	**Iowa**	70%	43%	Targets	-	-
7.35	**Montana**	23%	30%	-	Decoupling*	Yes*
7.35	**Missouri**	13%	20%	-	Lost Rev.	Yes
7.21	**Nebraska**	8%	28%	-	-	-
7.06	**Louisiana**	13%	25%	-	-	-
6.94	**Oklahoma**	13%	13%	-	Lost Rev.	Yes
6.77	**Utah**	60%	42%	-	Decoupling*	Yes*
6.65	**West Virginia**	0%	28%	-	-	-
6.63	**North Dakota**	0%	8%	-	-	-
6.60	**Washington**	68%	68%	EERS	-	-
6.52	**Kentucky**	18%	28%	-	Lost Rev.	Yes
6.51	**Idaho**	45%	37%	-	Decoupling	Yes*
6.08	**Wyoming**	0%	5%	-	-	-

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price
Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score
Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score
Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable energy std. (RES)
Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011
Note 6: An asterics "*" indicates policies which are "pending"

Summary of State Average Energy Prices, ACEEE Energy Efficiency Scorecard and Energy Efficiency Investment Policy

Rank Ordered By ACEEE Utility and Public Benefits Fund Efficiency Programs and Policies Score (2)

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)
12.75	Vermont	95%	50%	Targets	Decoupling	Yes
15.45	Massachusetts	93%	90%	EERS	Decoupling	Yes
14.23	Rhode Island	93%	52%	EERS	Decoupling*	Yes
8.14	Minnesota	90%	50%	EERS	Decoupling*	Yes
13.24	California	88%	88%	EERS	Decoupling	Yes
15.52	New York	75%	77%	EERS	Decoupling	-
7.37	Iowa	70%	43%	Targets	-	-
7.48	Oregon	68%	80%	Targets	Decoupling	-
6.60	Washington	68%	68%	EERS	-	-
21.21	Hawaii	60%	48%	EERS-RES	Decoupling	Yes
18.06	Connecticut	60%	70%	-	Decoupling	Yes
6.77	Utah	60%	42%	-	Decoupling*	Yes*
10.36	Nevada	58%	37%	EERS-RES	Decoupling	-
9.56	Arizona	58%	43%	EERS	Decoupling*	Yes
9.38	Wisconsin	58%	45%	EERS	Decoupling	Yes
8.31	Colorado	55%	52%	Targets	Lost Rev.	Yes
15.13	New Hampshire	53%	45%	-	Decoupling*	Yes
8.14	Maine	53%	53%	Targets	-	-
9.40	Michigan	50%	48%	EERS	Decoupling	Yes
13.08	Maryland	48%	70%	EERS	Decoupling	-
9.08	Illinois	45%	52%	EERS	-	-
6.51	Idaho	45%	37%	-	Decoupling	Yes*
14.52	New Jersey	43%	57%	-	Decoupling*	Yes
9.01	Ohio	43%	45%	EERS	Lost Rev.	VPP
7.62	Indiana	33%	35%	EERS	Lost Rev.	Yes
8.09	New Mexico	25%	47%	EERS	Decoupling*	Yes
8.48	North carolina	23%	48%	EERS-RES	Lost Rev.	Yes
7.39	South Dakota	23%	17%	-	-	Yes
7.35	Montana	23%	30%	-	Decoupling*	Yes*
9.60	Pennsylvania	20%	57%	EERS	-	-
11.49	Florida	18%	52%	Targets	-	Yes*
6.52	Kentucky	18%	28%	-	Lost Rev.	Yes
9.86	Texas	15%	42%	EERS	-	Yes
12.14	Delaware	13%	50%	-	Decoupling*	-
8.83	Alabama	13%	22%	-	-	-
7.35	Missouri	13%	20%	-	Lost Rev.	Yes
7.06	Louisiana	13%	25%	-	-	-
6.94	Oklahoma	13%	13%	-	Lost Rev.	Yes
8.93	Virginia	10%	40%	-	-	-
8.69	Tennessee	10%	55%	-	-	-
8.81	Georgia	8%	38%	-	-	Yes
8.42	South Carolina	8%	22%	-	Lost Rev.	Yes
7.21	Nebraska	8%	28%	-	-	-
7.98	Kansas	5%	15%	-	-	Yes*
8.85	Mississippi	3%	12%	-	-	-
8.83	Alaska	0%	37%	-	-	-
6.65	West Virginia	0%	28%	-	-	-
6.63	North Dakota	0%	8%	-	-	-
6.08	Wyoming	0%	5%	-	-	-

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price
Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score
Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score
Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable energy std. (RES)
Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011
Note 6: An asterics "*" indicates policies which are "pending"

Schedule JAR-3

Summary of State Average Energy Prices, ACEEE Energy Efficiency Scorecard and Energy Efficiency Investment Policy

Rank Ordered By ACEEE Average Scores for Transportation, Building Energy Codes, CHP, State Gov. Initiative, and Appliance Efficiency Standards (3)

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)
15.45	Massachusetts	93%	90%	EERS	Decoupling	Yes
13.24	California	88%	88%	EERS	Decoupling	Yes
7.48	Oregon	68%	80%	Targets	Decoupling	-
15.52	New York	75%	77%	EERS	Decoupling	-
18.06	Connecticut	60%	70%	-	Decoupling	Yes
13.08	Maryland	48%	70%	EERS	Decoupling	-
6.60	Washington	68%	68%	EERS	-	-
14.52	New Jersey	43%	57%	-	Decoupling*	Yes
9.60	Pennsylvania	20%	57%	EERS	-	-
8.69	Tennessee	10%	55%	-	-	-
8.14	Maine	53%	53%	Targets	-	-
14.23	Rhode Island	93%	52%	EERS	Decoupling*	Yes
8.31	Colorado	55%	52%	Targets	Lost Rev.	Yes
9.08	Illinois	45%	52%	EERS	-	-
11.49	Florida	18%	52%	Targets	-	Yes*
12.75	Vermont	95%	50%	Targets	Decoupling	Yes
8.14	Minnesota	90%	50%	EERS	Decoupling*	Yes
12.14	Delaware	13%	50%	-	Decoupling*	-
21.21	Hawaii	60%	48%	EERS-RES	Decoupling	Yes
9.40	Michigan	50%	48%	EERS	Decoupling	Yes
8.48	North carolina	23%	48%	EERS-RES	Lost Rev.	Yes
8.09	New Mexico	25%	47%	EERS	Decoupling*	Yes
9.38	Wisconsin	58%	45%	EERS	Decoupling	Yes
15.13	New Hampshire	53%	45%	-	Decoupling*	Yes
9.01	Ohio	43%	45%	EERS	Lost Rev.	VPP
7.37	Iowa	70%	43%	Targets	-	-
9.56	Arizona	58%	43%	EERS	Decoupling*	Yes
6.77	Utah	60%	42%	-	Decoupling*	Yes*
9.86	Texas	15%	42%	EERS	-	Yes
8.93	Virginia	10%	40%	-	-	-
8.81	Georgia	8%	38%	-	-	Yes
10.36	Nevada	58%	37%	EERS-RES	Decoupling	-
6.51	Idaho	45%	37%	-	Decoupling	Yes*
8.83	Alaska	0%	37%	-	-	-
7.62	Indiana	33%	35%	EERS	Lost Rev.	Yes
7.35	Montana	23%	30%	-	Decoupling*	Yes*
6.52	Kentucky	18%	28%	-	Lost Rev.	Yes
7.21	Nebraska	8%	28%	-	-	-
6.65	West Virginia	0%	28%	-	-	-
7.06	Louisiana	13%	25%	-	-	-
8.83	Alabama	13%	22%	-	-	-
8.42	South Carolina	8%	22%	-	Lost Rev.	Yes
7.35	Missouri	13%	20%	-	Lost Rev.	Yes
7.39	South Dakota	23%	17%	-	-	Yes
7.98	Kansas	5%	15%	-	-	Yes*
6.94	Oklahoma	13%	13%	-	Lost Rev.	Yes
8.85	Mississippi	3%	12%	-	-	-
6.63	North Dakota	0%	8%	-	-	-
6.08	Wyoming	0%	5%	-	-	-

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price
Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score
Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score
Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable energy std. (RES)
Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011
Note 6: An asterics "*" indicates policies which are "pending"

Schedule JAR-4

Summary of State Average Energy Prices, ACEEE Energy Efficiency Scorecard and Energy Efficiency Investment Policy

Grouped by whether the states has Targets, EERS-RES, RES or no energy efficiency resource standard (4)

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)
7.48	**Oregon**	68%	80%	Targets	Decoupling	-
8.14	**Maine**	53%	53%	Targets	-	-
8.31	**Colorado**	55%	52%	Targets	Lost Rev.	Yes
11.49	**Florida**	18%	52%	Targets	-	Yes*
12.75	**Vermont**	95%	50%	Targets	Decoupling	Yes
7.37	**Iowa**	70%	43%	Targets	-	-
21.21	**Hawaii**	60%	48%	EERS-RES	Decoupling	Yes
8.48	**North carolina**	23%	48%	EERS-RES	Lost Rev.	Yes
10.36	**Nevada**	58%	37%	EERS-RES	Decoupling	-
15.45	**Massachusetts**	93%	90%	EERS	Decoupling	Yes
13.24	**California**	88%	88%	EERS	Decoupling	Yes
15.52	**New York**	75%	77%	EERS	Decoupling	-
13.08	**Maryland**	48%	70%	EERS	Decoupling	-
6.60	**Washington**	68%	68%	EERS	-	-
9.60	**Pennsylvania**	20%	57%	EERS	-	-
14.23	**Rhode Island**	93%	52%	EERS	Decoupling*	Yes
9.08	**Illinois**	45%	52%	EERS	-	-
8.14	**Minnesota**	90%	50%	EERS	Decoupling*	Yes
9.40	**Michigan**	50%	48%	EERS	Decoupling	Yes
8.09	**New Mexico**	25%	47%	EERS	Decoupling*	Yes
9.38	**Wisconsin**	58%	45%	EERS	Decoupling	Yes
9.01	**Ohio**	43%	45%	EERS	Lost Rev.	VPP
9.56	**Arizona**	58%	43%	EERS	Decoupling*	Yes
9.86	**Texas**	15%	42%	EERS	-	Yes
7.62	**Indiana**	33%	35%	EERS	Lost Rev.	Yes
18.06	**Connecticut**	60%	70%	-	Decoupling	Yes
14.52	**New Jersey**	43%	57%	-	Decoupling*	Yes
8.69	**Tennessee**	10%	55%	-	-	-
12.14	**Delaware**	13%	50%	-	Decoupling*	-
15.13	**New Hampshire**	53%	45%	-	Decoupling*	Yes
6.77	**Utah**	60%	42%	-	Decoupling*	Yes*
8.93	**Virginia**	10%	40%	-	-	-
8.81	**Georgia**	8%	38%	-	-	Yes
6.51	**Idaho**	45%	37%	-	Decoupling	Yes*
8.83	**Alaska**	0%	37%	-	-	-
7.35	**Montana**	23%	30%	-	Decoupling*	Yes*
6.52	**Kentucky**	18%	28%	-	Lost Rev.	Yes
7.21	**Nebraska**	8%	28%	-	-	-
6.65	**West Virginia**	0%	28%	-	-	-
7.06	**Louisiana**	13%	25%	-	-	-
8.83	**Alabama**	13%	22%	-	-	-
8.42	**South Carolina**	8%	22%	-	Lost Rev.	Yes
7.35	**Missouri**	13%	20%	-	Lost Rev.	Yes
7.39	**South Dakota**	23%	17%	-	-	Yes
7.98	**Kansas**	5%	15%	-	-	Yes*
6.94	**Oklahoma**	13%	13%	-	Lost Rev.	Yes
8.85	**Mississippi**	3%	12%	-	-	-
6.63	**North Dakota**	0%	8%	-	-	-
6.08	**Wyoming**	0%	5%	-	-	-

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price

Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score

Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score

Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable energy std. (RES)

Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011

Note 6: An asterics "*" indicates policies which are "pending"

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

0.2% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Sales Growth Positive and Greater Than Energy Savings	Sales Growth Positive and Less Than Energy Savings	No Sales Growth Without DSM	Sales Growth Negative and Less Than Energy Savings	Sales Growth Negative and Less Than Energy Savings
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	756,000	378,000	0	(378,000)	(756,000)
c	Energy Savings from DSM Programs	75,600	75,600	75,600	75,600	75,600
d = b - c	Sales Growth With DSM	680,400	302,400	(75,600)	(453,600)	(831,600)
e = c	Company Proposed Shard Net Benefits	75,600	75,600	75,600	75,600	75,600
f	Rule 4 CSR 240-20.093(2)(F)	0	0	75,600	75,600	75,600
g = c - b	Decoupling	(680,400)	(302,400)	75,600	453,600	831,600
h	Sales Growth Rate Without DSM (%)	2.00%	1.00%	0.00%	-1.00%	-2.00%
i	DSM Programs Energy Savings (%)	0.20%	0.20%	0.20%	0.20%	0.20%

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

0.7% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Sales Growth Positive and Greater Than Energy Savings	Sales Growth Positive and Less Than Energy Savings	No Sales Growth Without DSM	Sales Growth Negative and Less Than Energy Savings	Sales Growth Negative and Less Than Energy Savings
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	756,000	378,000	0	(378,000)	(756,000)
c	Energy Savings from DSM Programs	250,000	250,000	250,000	250,000	250,000
d = b - c	Sales Growth With DSM	506,000	128,000	(250,000)	(628,000)	(1,006,000)
e = c	Company Proposed Shard Net Benefits	250,000	250,000	250,000	250,000	250,000
f	Rule 4 CSR 240-20.093(2)(F)	0	0	250,000	250,000	250,000
g = c - b	Decoupling	(506,000)	(128,000)	250,000	628,000	1,006,000
h	Sales Growth Rate Without DSM (%)	2.00%	1.00%	0.00%	-1.00%	-2.00%
i	DSM Programs Energy Savings (%)	0.66%	0.66%	0.66%	0.66%	0.66%

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

1.2% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Sales Growth Positive and Greater Than Energy Savings	Sales Growth Positive and Less Than Energy Savings	No Sales Growth Without DSM	Sales Growth Negative and Less Than Energy Savings	Sales Growth Negative and Less Than Energy Savings
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	756,000	378,000	0	(378,000)	(756,000)
c	Energy Savings from DSM Programs	453,600	453,600	453,600	453,600	453,600
d = b - c	Sales Growth With DSM	302,400	(75,600)	(453,600)	(831,600)	(1,209,600)
e = c	Company Proposed Shard Net Benefits	453,600	453,600	453,600	453,600	453,600
f	Rule 4 CSR 240-20.093(2)(F)	0	75,600	453,600	453,600	453,600
g = c - b	Decoupling	(302,400)	75,600	453,600	831,600	1,209,600
h	Sales Growth Rate Without DSM (%)	2.00%	1.00%	0.00%	-1.00%	-2.00%
i	DSM Programs Energy Savings (%)	1.20%	1.20%	1.20%	1.20%	1.20%

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

0.66% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Very High Growth Forecast	High Growth Forecast	Base Growth Forecast	Low Growth Forecast	Zero Growth Forecast
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	567,000	378,000	283,500	189,000	0
c	Energy Savings from DSM Programs	250,000	250,000	250,000	250,000	250,000
d = b - c	Sales Growth With DSM	317,000	128,000	33,500	(61,000)	(250,000)
e = c	Company Proposed Shard Net Benefits	250,000	250,000	250,000	250,000	250,000
f	Rule 4 CSR 240-20.093(2)(F)	0	0	0	61,000	250,000
g = c - b	Decoupling	(317,000)	(128,000)	(33,500)	61,000	250,000
h	Sales Growth Rate Without DSM (%)	1.50%	1.00%	0.75%	0.50%	0.00%
i	DSM Programs Energy Savings (%)	0.66%	0.66%	0.66%	0.66%	0.66%

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

1.00% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Very High Growth Forecast	High Growth Forecast	Base Growth Forecast	Low Growth Forecast	Zero Growth Forecast
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	567,000	378,000	283,500	189,000	0
c	Energy Savings from DSM Programs	378,000	378,000	378,000	378,000	378,000
d = b - c	Sales Growth With DSM	189,000	0	(94,500)	(189,000)	(378,000)
e = c	Company Proposed Shard Net Benefits	378,000	378,000	378,000	378,000	378,000
f	Rule 4 CSR 240-20.093(2)(F)	0	0	94,500	189,000	378,000
g = c - b	Decoupling	(189,000)	0	94,500	189,000	378,000
h	Sales Growth Rate Without DSM (%)	1.50%	1.00%	0.75%	0.50%	0.00%
i	DSM Programs Energy Savings (%)	1.00%	1.00%	1.00%	1.00%	1.00%

Examples of Lost Revenue Recovery Mechanisms and Decoupling Mechanism

1.5% Annual Energy Savings from DSM Programs (MWh)

		Case 1	Case 2	Case 3	Case 4	Case 5
		Very High Growth Forecast	High Growth Forecast	Base Growth Forecast	Low Growth Forecast	Zero Growth Forecast
a	Sales Used To Set Electricity Rates	37,800,000	37,800,000	37,800,000	37,800,000	37,800,000
b	Sales Growth Without DSM	567,000	378,000	283,500	189,000	0
c	Energy Savings from DSM Programs	567,000	567,000	567,000	567,000	567,000
d = b - c	Sales Growth With DSM	0	(189,000)	(283,500)	(378,000)	(567,000)
e = c	Company Proposed Shard Net Benefits	567,000	567,000	567,000	567,000	567,000
f	Rule 4 CSR 240-20.093(2)(F)	0	189,000	283,500	378,000	567,000
g = c - b	Decoupling	0	189,000	283,500	378,000	567,000
h	Sales Growth Rate Without DSM (%)	1.50%	1.00%	0.75%	0.50%	0.00%
i	DSM Programs Energy Savings (%)	1.50%	1.50%	1.50%	1.50%	1.50%

Summary of State Average Energy Prices, ACEEE Energy Efficiency and Energy Efficiency Investment Policy

Grouped by whether the states has Decoupling, Lost Rev. or no fixed cost recovery mechanism (5)

Average Cents/kWh (1)		Utility EE Index (2)	Non-Utility Index (3)	EERS EERS-RES (4)	Fixed Cost Recovery (5)	Performance Incentive (5)	Cap (7)
7.48	**Oregon**	68%	80%	Targets	Decoupling	-	
12.75	**Vermont**	95%	50%	Targets	Decoupling	Yes	
21.21	**Hawaii**	60%	48%	EERS-RES	Decoupling	Yes	5% of net benefits, $4 m
10.36	**Nevada**	58%	37%	EERS-RES	Decoupling	-	5% of savings goal
14.23	**Rhode Island**	93%	52%	EERS	Decoupling*	Yes	125% of savings metric
8.14	**Minnesota**	90%	50%	EERS	Decoupling	Yes	150% of savings goal/30% of budget
8.09	**New Mexico**	25%	47%	EERS	Decoupling*	Yes	
9.56	**Arizona**	58%	43%	EERS	Decoupling*	Yes	10% of program costs
15.45	**Massachusetts**	93%	90%	EERS	Decoupling	Yes	5.5% of program costs
13.24	**California**	88%	88%	EERS	Decoupling	Yes	$150 million/yr. award or penalty
15.52	**New York**	75%	77%	EERS	Decoupling	-	
13.08	**Maryland**	48%	70%	EERS	Decoupling	-	
9.40	**Michigan**	50%	48%	EERS	Decoupling	Yes	
9.38	**Wisconsin**	58%	45%	EERS	Decoupling	Yes	None
14.52	**New Jersey**	43%	57%	-	Decoupling*	Yes	
12.14	**Delaware**	13%	50%	-	Decoupling*	-	
15.13	**New Hampshire**	53%	45%	-	Decoupling*	Yes	12% of program costs
6.77	**Utah**	60%	42%	-	Decoupling*	Yes*	
7.35	**Montana**	23%	30%	-	Decoupling*	Yes*	
18.06	**Connecticut**	60%	70%	-	Decoupling	Yes	8% of program costs
6.51	**Idaho**	45%	37%	-	Decoupling	Yes*	10% of program benefits
8.31	**Colorado**	55%	52%	Targets	Lost Rev.	Yes	20% of program costs
8.48	**North carolina**	23%	48%	EERS-RES	Lost Rev.	Yes	
9.01	**Ohio**	43%	45%	EERS	Lost Rev.	VPP	15%of program costs
7.62	**Indiana**	33%	35%	EERS	Lost Rev.	Yes	
6.52	**Kentucky**	18%	28%	-	Lost Rev.	Yes	10% of program costs
8.42	**South Carolina**	8%	22%	-	Lost Rev.	Yes	
7.35	**Missouri**	13%	20%	-	Lost Rev.	Yes	
6.94	**Oklahoma**	13%	13%	-	Lost Rev.	Yes	Fixed, $2.7 million
8.14	**Maine**	53%	53%	Targets	-	-	
11.49	**Florida**	18%	52%	Targets	-	Yes*	
7.37	**Iowa**	70%	43%	Targets	-	-	
6.60	**Washington**	68%	68%	EERS	-	-	150% of savings goal
9.60	**Pennsylvania**	20%	57%	EERS	-	-	
9.08	**Illinois**	45%	52%	EERS	-	-	
9.86	**Texas**	15%	42%	EERS	-	Yes	20% of program costs
8.69	**Tennessee**	10%	55%	-	-	-	
8.93	**Virginia**	10%	40%	-	-	-	
8.81	**Georgia**	8%	38%	-	-	Yes	None
8.83	**Alaska**	0%	37%	-	-	-	
7.21	**Nebraska**	8%	28%	-	-	-	
6.65	**West Virginia**	0%	28%	-	-	-	
7.06	**Louisiana**	13%	25%	-	-	-	
8.83	**Alabama**	13%	22%	-	-	-	
7.39	**South Dakota**	23%	17%	-	-	Yes	
7.98	**Kansas**	5%	15%	-	-	Yes*	
8.85	**Mississippi**	3%	12%	-	-	-	
6.63	**North Dakota**	0%	8%	-	-	-	
6.08	**Wyoming**	0%	5%	-	-	-	

Note 1: United States Energy Information Administration (EIA) 2009 Total Electricity Industry Average Price

Note 2: ACEEE No. E115 Percentage of total possible score for Utility and Public Benefits Fund Efficiency Programs and Policies Score

Note 3: ACEEE No. E115 Percentage of total possible score for Transportation, Building EE Code, CHP, State Gov. Initiatives and Appliance Stds. Score

Note 4: ACEEE No. U112 for energy efficiency resource standard (EERS), tailored utility targets (Targets), combination EERS-renewable

Note 5: The Edison Foundation - Institute for Energy Efficiency, State Electric Efficiency Regulatory Frameworks, June 2011

Note 6: An asterics "*" indicates policies which are "pending"

Note 7: Cap information from *Rebuttal testimony of Ryan Kind*, Table 1, p. 12.

Schedule JAR-8