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Demand-Side Programs John A. Rogers MO PSC Staff Surrebuttal Testimony EO-2015-0240 and EO-2015-0241 December 31, 2015

Date Testimony Prepared:

### MISSOURI PUBLIC SERVICE COMMISSION

### **COMMISSION STAFF DIVISION**

### **JOHN A. ROGERS**

### SURREBUTTAL TESTIMONY

### **KANSAS CITY POWER & LIGHT COMPANY**

### CASE NO. EO-2015-0240

## **KCP&L GREATER MISSOURI OPERATIONS COMPANY**

CASE NO. EO-2015-0241

Jefferson City, Missouri December 2015

<u>Staff</u> Exhibit No. 202 Date 1-12-14 Reporter 40 File No. 20-2013-0240 20-2015-0241

### **BEFORE THE PUBLIC SERVICE COMMISSION**

### **OF THE STATE OF MISSOURI**

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In the Matter of KCP&L Greater Missouri Operations Company's Filing for Approval of Demand-Side Programs and for Authority to Establish a Demand-Side Programs Investment Mechanism

Case No. EO-2015-0241

### **AFFIDAVIT OF JOHN A. ROGERS**

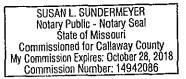
**STATE OF MISSOURI** ) ss **COUNTY OF COLE** 

COMES NOW, John A. Rogers and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Surrebuttal Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

John A. Rogers

Subscribed and sworn to before me this  $3/3^{1}$ day of December, 2015.



Notary Public

| 1              | JOHN A. ROGERS   |
|----------------|--|
| 2              | SURREBUTTAL TESTIMONY  |
| 4<br>5         | KANSAS CITY POWER & LIGHT COMPANY  |
| 6<br>7         | CASE NO. EO-2015-0240  |
| 8<br>9         | KCP&L GREATER MISSOURI OPERATIONS COMPANY  |
| 10<br>11       |  |
| 12<br>13       |  |
| 14             | <u>Table of Contents</u>   |
| 15             | Stipulation meets all requirements of MEEIA and should not be rejected 4   |
| 16<br>17       | Comparable custom rebate programs should not include programs in states with a mandatory EERS  |
| 18<br>19<br>20 | The Commission should not order the Company to continue the Cycle 1 Custom<br>Rebate program in Cycle 2. The Company can and will adjust the Custom Rebate<br>programs' incentives as necessary to move the market             |
| 21<br>22<br>23 | The proposed C&I Custom Rebate program is in large part a result of the analyses<br>of the Company's consultant Applied Energy Group and represents a step forward<br>on the learning curve for energy efficiency in Missouri, |

,

| 1        |                   | JOHN A. ROGERS   |
|----------|-------------------|--|
| 23       |                   | SURREBUTTAL TESTIMONY  |
| 4<br>5   |                   | KANSAS CITY POWER & LIGHT COMPANY  |
| 6<br>7   |                   | CASE NO. EO-2015-0240  |
| 8<br>9   |                   | KCP&L GREATER MISSOURI OPERATIONS COMPANY                                    |
| 10<br>11 | 1                 | CASE NO. EO-2015-0241  |
| 12<br>13 | Q.                | Please state your name and business address.                                 |
| 14       | А.                | My name is John A. Rogers, and my business address is Missouri Public        |
| 15       | Service Com       | mission, P. O. Box 360, Jefferson City, Missouri 65102.                      |
| 16       | Q.                | What is your present position at the Missouri Public Service Commission      |
| 17       | 7 ("Commission")? |  |
| 18       | А.                | I am the Utility Regulatory Manager in the Energy Resources Department of    |
| 19       | the Commiss       | sion Staff Division.   |
| 20       | Q.                | Are you the same John A. Rogers that filed direct testimony in this case on  |
| 21       | December 11       | , 2015?  |
| 22       | А.                | Yes.   |
| 23       | Q.                | Would you please summarize the purpose of your surrebuttal testimony?        |
| 24       | А.                | I respond to certain aspects of the rebuttal testimony of Brightergy witness |
| 25       | Adam Blake        | , including:   |
| 26       | 1.                | . Mr. Blake's recommendation that, if certain conditions are not met, the    |
| 27       |                   | Commission reject the Non-Unanimous Stipulation and Agreement                |
| 28       |                   | ("Stipulation") filed on November 23, 2015, in Case Nos. EO-2015-0240 and    |
| 29       |                   | EO-2015-0241;  |
|          |                   |  |

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| 1  | 2.      | Mr. Blake's assertion that custom rebate programs of utilities in other specified   |
|----|---------|---|
| 2  |         | Midwestern and Northeastern states should be viewed as "comparable" or              |
| 3  |         | "similar" to the Custom Rebate programs of Kansas City Power & Light                |
| 4  |         | ("KCPL") and KCP&L Greater Missouri Operations Company ("GMO")                      |
| 5  |         | (collectively "the Company");   |
| 6  | 3.      | Mr. Blake's recommendation that, absent rejection of the Stipulation, the           |
| 7  |         | Commission should order the Company to continue the existing MEEIA Cycle            |
| 8  |         | 1 Custom Rebate program in its Cycle 2; and   |
| 9  | 4.      | Mr. Blake's assertion that the Company's proposed Custom Rebate program             |
| 10 |         | may be a waste of customer money and certainly a major step backwards for           |
| 11 |         | energy efficiency in Missouri.  |
| 12 | Q.      | Please summarize Staff's position concerning the issues identified in your last     |
| 13 | answer. |   |
| 14 | А.      | In summary:   |
| 15 | 1.      | The MEEIA Cycle 2 programs and demand-side programs investment                      |
| 16 |         | mechanism ("DSIM") agreed to by the signatories <sup>1</sup> and articulated in the |
| 17 |         | Stipulation should not be rejected but should be approved, because the              |
| 18 |         | Stipulation satisfies the requirements of the Missouri Energy Efficiency            |
| 19 |         | Investment Act ("MEEIA") as well as all three of the objectives the                 |
| 20 |         | Commission identified in its October 22, 2015 Report and Order in Case No.          |
| 21 |         | EO-2015-0055;   |

<sup>&</sup>lt;sup>1</sup> Signatories to the Stipulation include: Staff of the Missouri Public Service Commission, KCPL, GMO, the Office of the Public Counsel, National Housing Trust, West Side Housing Organization, Natural Resources Defense Council, Earth Island Institute d/b/a Renew Missouri, Missouri Department of Economic Development – Division of Energy, and United for Missouri, Inc.

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| 1  | 2. | Other than Missouri, every one of the Midwestern and Northeastern states                   |
|----|----|--|
| 2  |    | included in the table on pages 6 and 7 of Mr. Blake's rebuttal testimony have              |
| 3  |    | mandatory energy efficiency resource standards ("EERS") with long-term,                    |
| 4  |    | binding energy savings targets for utilities or third-party program                        |
| 5  |    | administrators. <sup>2</sup> Custom rebate programs in states with a mandatory EERS        |
| 6  |    | and long-term legally binding savings targets should not be viewed as                      |
| 7  |    | comparable or similar to the Company's Custom Rebate programs, because                     |
| 8  |    | MEEIA is voluntary on the part of the electric utility;                                    |
| 9  | 3. | The Commission confirmed in a recent order <sup>3</sup> that it can only approve or reject |
| 10 |    | a utility's MEEIA plan and not order a modification to a plan which is not                 |
| 11 |    | acceptable to the utility. The Stipulation provides the Company the flexibility            |
| 12 |    | to decrease or increase the customer incentives for the Custom Rebate                      |
| 13 |    | programs within a range of \$0.06 per kWh to \$0.40 per kWh at its discretion              |
| 14 |    | and at any time during Cycle 2, if necessary, to move the market and achieve               |
| 15 |    | the objectives of the Company's voluntary MEEIA programs.; and                             |
| 16 | 4. | The level of customer incentives for C&I custom rebate programs does not                   |
| 17 |    | correlate directly with MEEIA's objective of achieving benefits for all                    |
| 18 |    | customers. Based upon an objective comparison of the Company's Cycle 1                     |
| 19 |    | C&I custom rebate programs (which Brightergy seeks to continue in Cycle 2)                 |
| 20 |    | and Ameren Missouri (which had a program of similar design to that proposed                |
| 21 |    | by the Company for Cycle 2), the Company's program dramatically under-                     |

<sup>&</sup>lt;sup>2</sup> ACEEE Policy Brief, "State Energy Efficiency Resource Standards (EERS)". April 2015 (See Schedule JAR-

SR-1). <sup>3</sup> See Report and Order issued October 22, 2015 (EFIS Item No. 289) in Ameren Missouri's MEEIA Cycle 2 Case No. EO-2015-0055.

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| 1  | performed in the important performance metric of achieving net benefits per                 |
|----|---|
| 2  | dollar of program costs when compared to what Ameren Missouri achieved,                     |
| 3  | even though Ameren Missouri offered much lower customer incentives than                     |
| 4  | did the Company. This is important because it shows that lowering customer                  |
| 5  | incentives for the proposed Custom Rebate program is not a step backwards                   |
| 6  | for energy efficiency as Brightergy has claimed. Rather the proposed program                |
| 7  | incentives provide the Company the flexibility to drive even more benefits for              |
| 8  | all customers per dollar of program cost.   |
| 9  | Stipulation meets all requirements of MEEIA and should not be rejected.                     |
| 10 | Q. Do you support Mr. Blake's recommendation "Absent constructive resolution                |
| 11 | of these issues through negotiation, Brightergy asks that the Commission either reject      |
| 12 | KCP&L's programs entirely or order KCP&L to continue the existing MEEIA Cycle 1             |
| 13 | Customer Rebate Program." <sup>4</sup>  |
| 14 | A. No.  |
| 15 | Q. Why not?   |
| 16 | A. Through the negotiation process which resulted in the Stipulation, care was              |
| 17 | taken by the Company and other parties to negotiate a Stipulation which fully satisfies the |
| 18 | requirements of MEEIA as well as the objectives identified in the Commission's              |
| 19 | October 22, 2015 Report and Order in Case No. EO-2015-0055, specifically:                   |
|    |   |
| 1  |   |
|    |   |

<sup>4</sup> Blake surrebuttal testimony, page 1, line 40 through page 2 line 2.

| 1  | 1. Retrospective evaluation, measurement and verification ("EM&V") will be                     |
|----|--|
| 2  | used to determine energy savings that actually occurred for the true-up of the                 |
| 3  | throughput disincentive ("TD"); <sup>5</sup>   |
| 4  | 2. Earnings opportunity ("EO") will place shareholders in a financial position                 |
| 5  | comparable to the earnings opportunity they would have had if those                            |
| 6  | shareholders made a future supply-side investment; <sup>6</sup> and                            |
| 7  | 3. Non-participating ratepayers will be better off paying to help some ratepayers              |
| 8  | reduce usage than they would be under the scenario of paying a utility to build                |
| 9  | a power plant. <sup>7</sup>  |
| 10 | Except for Brightergy, all parties to this case either support or do not oppose the            |
| 11 | Stipulation. Brightergy's objections to the Stipulation will delay implementation of the       |
| 12 | Company's Cycle 2 from January 2016 to at least April 2016. However, Brightergy's              |
| 13 | objections to the Stipulation in no way change the fact that the Stipulation is comprised of a |
| 14 | demand-side portfolio, technical resource manual, plan for EM&V, and DSIM which meet all       |
| 15 | of the requirements of MEEIA and are acceptable to the Company. The Stipulation should         |
| 16 | therefore be approved by the Commission so that all customers can benefit from the             |
| 17 | Stipulation without any further delay due to rejection of the Stipulation.                     |

<sup>&</sup>lt;sup>5</sup> Section 393.1075.3.(2) 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.

<sup>&</sup>lt;sup>6</sup> Section 393.1075.3. It shall be the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure and allow recovery of all reasonable and prudent costs of delivering cost-effective demand-side programs. In support of this policy, the commission shall: ... (3) Provide timely earnings opportunities associated with cost-effective measurable and verifiable efficiency savings.

<sup>&</sup>lt;sup>7</sup> Section 393.1075.4. The commission shall permit electric corporations to implement commission-approved demand-side programs proposed pursuant to this section with a goal of achieving all cost-effective demand-side savings. Recovery for such programs shall not be permitted unless the programs are approved by the commission, result in energy or demand savings and are beneficial to all customers in the customer class in which the programs are proposed, regardless of whether the programs are utilized by all customers.

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# 1Comparable custom rebate programs should not include programs in states with a<br/>mandatory EERS.

Q. Do you agree that the custom rebate programs identified in the table on pages 6 and 7 of Mr. Blake's rebuttal testimony should be viewed as "comparable" or "similar" to the Company's Customer Rebate programs?

A. I do not.

Q. Why not?

8 A. Except for Missouri, each of the other eight states in Mr. Blake's table (Iowa, 9 Illinois, Wisconsin, Rhode Island, Massachusetts, New York, Arkansas, and Maryland) has a 10 mandatory EERS. Schedule JAR-SR-1 provides a summary of the statutory requirements to 11 achieve energy savings in all 24 states with an EERS. States with mandatory EERS have 12 long-term, legally binding energy savings targets for utilities or third-party program 13 administrators.<sup>8</sup> In Missouri, utilities may voluntarily choose whether or not to participate in 14 MEEIA, and any annual energy and demand savings targets approved by the Commission are 15 not mandatory under the law.<sup>9</sup> It is only natural that utilities in states with mandatory/binding 16 savings targets would be more aggressive in many aspects of program design, including 17 customer incentive levels, than would utilities in Missouri, which has voluntary programs and 18 non-binding savings targets.

<sup>&</sup>lt;sup>8</sup> ACEEE Policy Brief, "State Energy Efficiency Resource Standards (EERS)". April 2015. (See Schedule JAR-SR-1).

<sup>&</sup>lt;sup>9</sup> 4 CSR 240-20.094(2) 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. *The goals established in this* section are not mandatory, and no penalty or adverse consequence will accrue to a utility that is unable to achieve the listed annual energy and demand savings goals. [Emphasis added]

1 Q. Does MEEIA contain any other provision which is not present in states with an 2 EERS and which necessitates a more careful and conservative approach for customer 3 incentives for all programs? Please explain.

4 A. Yes. MEEIA requires demand-side programs be beneficial to all customers in 5 the customer class in which the programs are proposed, regardless of whether the programs 6 are utilized by all customers. I know of no other state that requires such a provision. This 7 unique provision necessitates added care when setting incentive levels, because the Missouri 8 Public Service Commission cannot lawfully approve a demand-side portfolio and DSIM 9 which do not comply with all MEEIA requirements including the requirement that there be 10 benefits for all customers, including those customers who do not directly participate in 11 programs.

12

Q. Has the Commission rejected any MEEIA programs and DSIM because there 13 was not an expectation of benefits for all customers?

14 Α. Yes, through its October 22, 2015 Report and Order in Case No. 15 EO-2015-0055 the Commission rejected Ameren Missouri's MEEIA Cycle 2 plan, in part, for this very reason.<sup>10</sup> 16

#### 17 The Commission should not order the Company to continue the Cycle 1 Custom Rebate 18 program in Cycle 2. The Company can and will adjust the Custom Rebate programs' 19 incentives as necessary to move the market.

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Q. Please highlight Staff's analysis of customer benefits and costs which are expected to result from the Stipulation.

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A. Staff's analysis of customer benefits and costs which are expected to result from the Stipulation's demand-side programs and DSIMs is described on pages 2 through 6 of

<sup>10</sup> See Decision beginning on page 16 of the Commission's October 22, 2015 Report and Order in Case No. EO-2015-0055.

r

| 1              | my direct testimony, which includes the following summary statement: "The benefits per  |
|----------------|---|
| 2              | costs ratios in Table 1 and in Schedule JAR-D-2 demonstrate that the Stipulation's demand-  |
| 3              | side programs and DSIMs have materially improved as a result of the agreements in the   |
| 4              | Stipulation. The Stipulation's demand-side programs and DSIMs are clearly expected to   |
| 5              | provide benefits for all KCP&L and GMO customers, even those customers who do not   |
| 6              | participate directly in one or more programs." Thus, the Company has the opportunity and  |
| 7              | the flexibility, if necessary, to increase customer incentives to drive increased energy  |
| 8              | efficiency savings and still meet MEEIA's statutory requirement concerning benefits for all   |
| 9              | customers.  |
| 10             | Q. Should the Commission order the Company to continue the existing MEEIA   |
| 11             | Cycle 1 Custom Rebate program? Please explain.  |
| 12             | A. No. The Commission should not order the Company to continue the Cycle 1  |
| 13             | Custom Rebate program in Cycle 2, because:  |
| 14             | 1. The Commission has recognized that demand-side programs are a voluntary  |
| 15             | offering of the utility when it stated on page 6 of its Report and Order issued   |
| 16             | on October 22, 2015 in Case No. EO-2015-0055:   |
| 17<br>18       | MEEIA is permissive in nature and, by its express language, does not require utilities to offer demand-side programs.   |
| 19<br>20       | 2. Recently, the Commission confirmed that it can only approve or reject a  |
| 21             | utility's MEEIA plan and not order a modification to a plan which is not  |
| 22             | acceptable to the utility when it stated on page 9 of its Report and Order  |
| 23             | issued on October 22, 2015 in Case No. EO-2015-0055:  |
| 24<br>25<br>26 | By rule, the Commission must approve Ameren Missouri's plan,<br>approve the plan with modifications acceptable to Ameren<br>Missouri, or reject the plan. In this case, Ameren Missouri has |
|                |   |

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| 1<br>2<br>3    | acceptable and made clear that it does not find the modifications  |
|----------------|--|
| 4<br>5<br>6    | Commission must decide whether it can approve the Utility Plan in any of its iterations.   |
| 7              |  |
| 8              | supporting the Company's decision to change the customer incentives for its  |
| 9              | Cycle 2 Custom Rebate program;   |
| 10             | 4. The Stipulation provides the Company with flexibility to change the customer  |
| 11             | incentives for its Cycle 2 Custom Rebate program in response to EM&V   |
| 12             | impact analysis, <sup>11</sup> program participation levels, market intelligence, and  |
| 13             | stakeholder feedback; and  |
| 14             | 5. Much negotiation has taken place to address all issues raised by parties to   |
| 15             | create the Stipulation's Cycle 2 demand-side portfolio and DSIM. At this   |
| 16             | point in time, Brightergy is the only stakeholder to object to the Stipulation.  |
| 17             | Any further negotiation with Brightergy is not expected to result in a different   |
| 18             | or cost efficient Cycle 2 Custom Rebate program design that would be   |
| 19             | acceptable to the Company.   |
| 20<br>21<br>22 | The proposed C&I Custom Rebate program is in large part a result of the analyses of the Company's consultant Applied Energy Group and represents a step forward on the learning curve for energy efficiency in Missouri. |
| 23             | Q. Please comment on Mr. Blake's statement: "Brightergy is concerned the   |
| 24             |  |

24 proposed [C&I Custom Rebate] program, for commercial customers, is possibly a waste of

25 customer money and certainly a major step backwards for energy efficiency in Missouri.

<sup>&</sup>lt;sup>11</sup> EM&V impact analysis for the Company's Cycle 1 programs will be performed and reported only once following completion of Cycle 1, will be first reported to stakeholders in draft form on May 1, 2016, and may not be finalized until the end of 2016. EM&V impact analysis for the Company's Cycle 2 programs will be performed and reported annually.

Given these facts, Brightergy is simply proposing that KCP&L continue its existing Custom
 Rebate Program for MEEIA Cycle 1."<sup>12</sup>

A. Mr. Blake's statement is based on the mistaken notion that spending more dollars on program incentives would cause a corresponding increase in cost-effective energy savings. Increased program incentive spending overlooks the simple fact that all customers must pay for these programs through the *Demand-Side Investment Mechanism (DSIM)* charge on their monthly bills.

Ms. Winslow's direct testimony provides a detailed explanation and rationale supporting the Company's decision to change the customer incentives for its Cycle 2 Custom Rebate program. Schedule JAR-SR-2 illustrates that the Company's proposed Cycle 2 Custom Rebate program is designed to increase net benefits and lower program costs and is supported by actual experience to date for the Cycle 1 Custom Rebate program. Lowering the customer incentives for the Cycle 2 Customer Rebate program is clearly <u>not</u> a step backwards for energy efficiency as believed by Brightergy.

Finally, the Stipulation provides the Company with flexibility to change the customer incentives for its Custom Rebate program – if necessary – to drive increased energy efficiency savings and move the market to achieve the objectives of its voluntary MEEIA programs.

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Q. Does this conclude your testimony?

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A. Yes.

<sup>&</sup>lt;sup>12</sup> Blake surrebuttal testimony, page 2, lines 9 through 12



### State Energy Efficiency Resource Standards (EERS) April 2015

An energy efficiency resource standard (EERS) is a long-term (3+ years), binding energy savings target for utilities or third-party program administrators. Savings are achieved through energy efficiency programs for customers. An EERS is one of the most effective ways for a state to guarantee long-term energy savings. In 2013, states with an EERS achieved incremental electricity savings of 1.1% of retail sales on average, compared to average savings of 0.3% in states without an EERS.

Twenty-four<sup>1</sup> states are currently implementing EERS policies requiring electricity savings (Figure 1). Of these states, 15 also have EERS policies in place for natural gas. Seven of the 24 states have requirements that utilities or third-party administrators achieve all cost-effective energy efficiency.

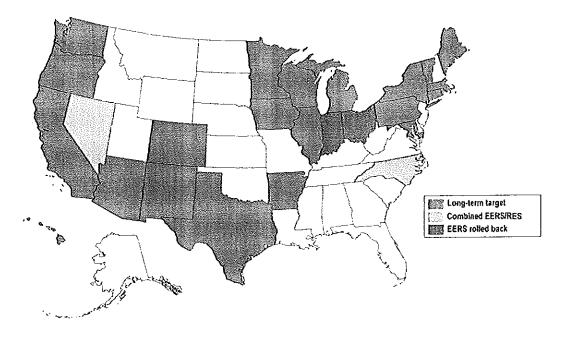


Figure 1. States with electric EERS policies in place (as of April 2015).

<sup>&</sup>lt;sup>1</sup> This count includes 22 states with a standalone EERS policy and two states that allow energy efficiency to count toward renewable energy standards (RES). This count does not include Indiana and Ohio, where EERS policies have been eliminated. Additional states have some form of targets, but for the following reasons we do not consider them EERS: Florida (previous targets were underfunded, and recent targets are so low as to be meaningless); Utah, Missouri, and Virginia (voluntary standards with no binding requirement).

Texas adopted the nation's first EERS in 1999, and many states followed suit in the mid-2000s. These policies have contributed to notable energy and bill savings in many states. All of the top-ten energy-saving states in 2013 had an EERS policy in place.<sup>2</sup> Furthermore, nearly every state with an EERS has met or surpassed their targets in recent years.<sup>3</sup>

In early 2014, 26 states were implementing EERS policies. However, EERS policies in Indiana and Ohio were recently rolled back due to political aversion to mandatory clean energy policies. In these states, many utilities continue to run programs. However, with no clear policy in place to guide savings, these states are no longer included in our list of EERS policies.

This policy brief summarizes each state electricity and natural gas EERS policy currently in place. Table 1 outlines current policy approaches for electricity EERS policies. Table 2 describes natural gas EERS policies. For a more in-depth look at individual state EERS policies, visit ACEEE's <u>State and Local Policy Database</u>.<sup>4</sup>

|   | State     Year enacted     Authority     Applicability     (% sales affected) <sup>5</sup> | Electricity energy efficiency resource standard  | Reference  |
|---|--|--|--|
| 1 | Arizona<br>2010<br>Regulatory <sup>6</sup><br>IOUs, Co-ops (~59%)                          | Incremental savings targets began at 1.25% of<br>sales in 2011, ramping up to 2.5% in 2016<br>through 2020 for cumulative annual electricity<br>savings of 22% of retail sales, of which 2% may<br>come from peak demand reductions.<br>Co-ops must meet 75% of targets. | Docket No. RE-00000C-09-<br>0427. Decision 71436<br>Docket No. RE-00000C-09-<br>0427. Decision 71819                   |
| 2 | Arkansas<br>2010<br>Regulatory<br>IOUs (~53%)  | Annual reduction of 0.75% of total electric kWh<br>sales in 2014 and 0.9% in 2015.<br>The Commission has withheld a ruling on targets<br>for 2016-2017 pending a potential study.  | Order No. 17, Docket No. 08-<br>144-U;<br>Order No. 1, Docket No. 13-<br>002-U<br>Order No. 7, Docket No. 13-<br>002-U |

#### Table 1. Electricity EERS policy status by state

<sup>&</sup>lt;sup>2</sup> 2013 is the most recent year for which complete data is available. See *The 2014 State Energy Efficiency Scorecard* (Gilleo et. al, 2014) for more details. <u>http://aceee.org/research-report/u1408</u>

<sup>&</sup>lt;sup>3</sup> See Energy Efficiency Resource Standards: A New Progress Report on State Experience (Downs and Cui, 2014) for more details: <u>http://aceee.org/research-report/u1403</u>

<sup>4 &</sup>lt;u>http://database.aceee.org/</u>

<sup>&</sup>lt;sup>5</sup> This does not take into account whether large customers are eligible to opt-out of programs. For more information on large customer opt-out, see *The 2014 State Energy Efficiency Scorecard* (Gilleo et. al, 2014): http://aceee.org/research-report/u1408

<sup>&</sup>lt;sup>6</sup> EERS policies under regulatory authority were set without legislation requiring specific savings levels or calling upon the state public utility commission to set savings targets.

|   | State     Year enacted     Authority     Applicability     (% sales affected) <sup>5</sup>           | Electricity energy efficiency resource standard   | Reference   |
|---|--|---|---|
| 3 | California<br>2004 and 2009<br>Legislative <sup>7</sup><br>IOUs (~78%)                               | Long-term goals of ~0.9% incremental savings<br>each year through 2020. However specific goals<br>have been adjusted upward in recent years, to ~<br>1.1% of sales in 2015. Demand reduction of<br>4,541 MW through 2020.<br>Utilities must pursue all cost-effective efficiency<br>resources.  | <u>CPUC Decision 04-09-060;</u><br><u>CPUC Decision 08-07-047;</u><br><u>CPUC Decision 14-10-046</u><br><u>AB 995</u>                                     |
| 4 | Colorado<br>2007<br>Legislative<br>IOUs (~57%)   | Black Hills follows PSCo incremental savings<br>targets of 0.8% of sales in 2011, increasing to<br>1.35% of sales in 2015. For the period 2015-<br>2020, PSCo must achieve incremental savings of<br>at least 400 GWh per year.   | Colorado Revised Statutes 40-<br>3.2-101, et seq.;<br>Docket No. 12A-100E Dec.<br>R12-0900;<br>Docket 10A-554EG<br>Docket No. 13A-0686EG Dec.<br>C14-0731 |
| 5 | Connecticut<br>2007 & 2013<br>Legislative<br>IOUs (~94%)   | Targets equivalent to incremental savings of<br>~1.4% per year through 2015.<br>Utilities must pursue all cost-effective efficiency<br>resources.<br>Planning is currently underway for the 2016-2018<br>Conservation and Load Management Plan.   | Public Act No. 07-242<br>Public Act No. 13-298<br>2013-2015 Electric and<br>Natural Gas Conservation and<br>Load Management Plan                          |
| 6 | Hawaii<br>2004 and 2009<br>Legislative<br>Statewide goal (100%)                                      | In 2009, transitioned away from a combined RPS-<br>EERS to a standalone EEPS goal to reduce<br>electricity consumption by 4,300 GWh by 2030<br>(equal to ~30% of forecast electricity sales, or<br>1.4% incremental savings per year).  | HRS §269-91, 92, 96<br>HI PUC Order, Docket 2010-<br>0037   |
| 7 | Illinois<br>2007<br>Legislative<br>Utilities with over<br>100,000 customers,<br>Illinois DCEO (~88%) | Electric: Legislative targets of 0.2% incremental<br>savings in 2008, ramping up to 2% in 2015 and<br>thereafter. Annual peak demand reduction of<br>0.1% through 2018.<br>Energy efficiency measures may not exceed an<br>established cost-cap. As a result, regulators have<br>approved lower targets in recent years, with<br>incremental electric savings targets varying by<br>utility from ~ 0.5% to 0.7% per year. | S.B. 1918<br>Public Act 96-0033<br>§ 220 ILCS 5/8-103<br>Case No. 13-0495<br>Case No. 13-0498   |
| 8 | lowa<br>2009<br>Legislative<br>IOUs (75%)  | Electric: Incremental savings targets vary by utility from ~1.1-1.2% annually through 2018.   | Senate Bill 2386<br>Iowa Code § 476<br>Docket EEP-2012-0001   |

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<sup>&</sup>lt;sup>7</sup> Legislation governing EERS policies may not include specific targets. In many cases, referenced legislation requires or explicitly enables the state public utility commission to set targets.

|    | State     Year enacted     Authority     Applicability     (% sales affected) <sup>5</sup>    | Electricity energy efficiency resource standard  | Reference  |
|----|---|--|--|
| 9  | Maine <sup>8</sup><br>2009<br>Legislative<br>Statewide goal (100%)                            | Electric savings of 20% by 2020, with incremental<br>savings targets of ~1.6% per year.<br>Efficiency Maine operates under an all cost-<br>effective mandate.  | <u>Efficiency Maine Triennial Plan</u><br>H.P. 1128 – L.D. 1559  |
| 10 | Maryland<br>2008<br>Legislative <sup>9</sup><br>Statewide Goal (100%)                         | 15% per-capita electricity use reduction goal by<br>2015 (10% by utilities, 5% achieved<br>independently). 15% reduction in per capita peak<br>demand by 2015, compared to 2007.<br>The next round of targets are currently under<br>discussion. Utilities have submitted plans for<br>2016-2018 with incremental targets of ~0.7% –<br>1.7% per year. | Md. Public Utility Companies<br>Code § 7-211<br>MD PSC Dockets 9153-9157                               |
| 11 | Massachusetts<br>2009<br>Legislative<br>IOUs, Co-ops, Muni's,<br>Cape Light Compact<br>(~86%) | Incremental savings of 1.4% in 2010, 2.0% in<br>2011; 2.4% in 2012; 2.5% in 2013 increasing to<br>2.6% by 2015.<br>Planning is currently underway for the 2016-2018<br>cycle.<br>All cost-effective efficiency requirement.  | D.P.U. Order 09-116 through<br>09-128<br>D.P.U. Order 12-100 through<br>12-111<br>M.G.L. ch. 25, § 21; |
| 12 | Michigan<br>2008<br>Legislative<br>Statewide Goal (100%)                                      | 0.3% incremental savings in 2009, ramping up to 1% in 2012 and each year thereafter.   | Act 295 of 2008  |
| 13 | Minnesota<br>2007<br>Legislative<br>Statewide Goal (100%)                                     | 1.5% incremental savings in 2010 and each year thereafter.   | <u>Minn, Stat. § 216B.241</u>  |
| 14 | Nevada<br>2005 and 2009<br>Legislative<br>IOUs (~62%)   | 20% of retail electricity sales to be met by<br>renewables and energy efficiency by 2015, and<br>25% by 2025. Energy efficiency may meet a<br>quarter of the standard through 2014, but is<br>phased out of the RPS by 2025.   | NRS 704.7801 et seq.<br>NRS 704.7801 as amended  |
| 15 | New Mexico<br>2008 and 2013<br>Legislative<br>IOUs (68%)                                      | 5% reduction from 2005 total retail electricity sales by 2014, and an 8% reduction by 2020.  | <u>N.M. Stat. § 62-17-1 et seq.</u>  |

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<sup>8</sup> The Maine Public Utilities Commission voted in March 2015 to restrict funding for Efficiency Maine beginning in 2016. This may result in the inability of Efficiency Maine to operate under its all cost-effective efficiency mandate, at which point we would no longer consider Maine to have an EERS in place.

<sup>9</sup> Targets for 2016 and beyond will be determined by the Maryland Public Service Commission.

|    | State     Year enacted     Authority     Applicability     (% sales affected) <sup>5</sup>         | Electricity energy efficiency resource standard   | Reference  |
|----|--|---|--|
| 16 | New York<br>2008<br>Regulatory<br>Statewide Goal (100%)  | Electric: Incremental savings of ~1% per year<br>through 2015.<br>EEPS targets through 2015 applied to utilities and<br>NYSERDA. Current REV proceeding includes utility<br>targets equivalent to ~ 0.4% in 2016 but no<br>NYSERDA targets. Future targets are currently<br>under discussion.   | NY PSC Order, Case 07-M-<br>0548<br>NY PSC Order, Case 07-M-<br>0748<br>NY PSC Case 14-M-0101  |
| 17 | North Carolina<br>2007<br>Legislative<br>Statewide Goal (100%)                                     | Renewable Energy and Energy Efficiency Portfolio<br>Standard (REPS) requires renewable generation<br>and/or energy savings of 6% by 2015, 10% by<br>2018, and 12.5% by 2021 and thereafter. Energy<br>efficiency is capped at 25% of target, increasing to<br>40% in 2021 and thereafter.   | <u>N.C. Gen. Stat. § 62-133.8</u><br>O4 NCAC 11 R08-64, et seq.  |
| 18 | Oregon<br>2010<br>Regulatory<br>Energy Trust of Oregon<br>(~70%)                                   | Incremental targets average ~1.3% of sales annually for the period 2015-2019.   | Energy Trust of Oregon 2015-<br>2019 Strategic Plan<br>Grant Agreement between<br>Energy Trust of Oregon and OR<br>PUC   |
| 19 | Pennsylvania<br>2004 and 2008<br>Legislative<br>Utilities with over<br>100,000 customers<br>(~93%) | 3% cumulative savings from 2009 to 2013;<br>~2.3% cumulative savings from 2014-2016. EERS<br>includes peak demand targets.<br>Proposed targets for the phase include<br>incremental savings of ~0.8% per year, but a final<br>order has not yet been issued.<br>Energy efficiency measures may not exceed an<br>established cost-cap. | 66 Pa C.S. § 2806.1;<br>PUC Order Docket No. M-2008-<br>2069887;<br>PUC Implementation Order<br>Docket M-2012-2289411<br>PUC Tentative Implementation<br>Order Docket M-2014-<br>2424864 |
| 20 | Rhode Island<br>2006<br>Legislative<br>IOUs, Muni's (~99%)   | Electric: Incremental savings of 2.5% in 2015<br>2.55% in 2016, and 2.6% in 2017. EERS includes<br>demand response targets.<br>Utilities must acquire all cost-effective energy<br>efficiency.  | R.I.G.L § 39-1-27.7<br>Docket No. 4443   |
| 21 | Texas<br>1999 and 2007<br>Legislative<br>IOUs (~73%)   | 20% incremental load growth in 2011 (equivalent<br>to ~0.10% annual savings); 25% in 2012, 30% in<br>2013 onward. Peak demand reduction targets of<br>0.4% compared to previous year.<br>Energy efficiency measures may not exceed an<br>established cost cap.  | Senate Bill 7;<br>House Bill 3693;<br>Substantive Rule § 25.181<br>Senate Bill 1125  |
| 22 | Vermont<br>2000<br>Legislative<br>Efficiency Vermont,<br>Burlington Electric<br>(100%)             | Average incremental electricity savings of about<br>2.1% per year from 2015 – 2017. EERS includes<br>demand response targets.<br>Energy efficiency utilities must set budgets at a<br>level that would realize all cost-effective energy<br>efficiency.   | <u>30 V.S.A. § 209;</u><br>VT PSB Docket EEU-2010-06<br>Efficiency Vermont Triennial<br>Plan 2015-17   |

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|    | State     Year enacted     Authority     Applicability     (% sales affected) <sup>5</sup> | Electricity energy efficiency resource standard  | Reference   |
|----|--|--|---|
| 23 | Washington<br>2006<br>Legislative<br>IOUs, Co-ops, Muni's<br>(~81%)                        | Biennial and Ten-Year Goals vary by utility. Law<br>requires savings targets to be based on the<br>Northwest Power Plan, which estimates potential<br>incremental savings of about 1.5% per year<br>through 2030 for Washington utilities.<br>All cost-effective conservation requirement. | Ballot Initiative I-937<br>WAC 480-109<br>WAC 194-37                                |
| 24 | Wisconsin<br>2011<br>Legislative<br>Statewide Goal (100%)                                  | Focus on Energy targets include incremental<br>electricity savings of ~0.77% of sales per year in<br>2015-2018<br>Energy efficiency measures may not exceed an<br>established cost-cap.  | <u>Order, Docket 5-GF-191</u><br><u>Order 9501-FE-120</u><br>2005 Wisconsin Act 141 |

### Table 2. Natural gas EERS policy status by state

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|   | State     Year enacted     Authority     Applicability     (% sales affected) | Natural gas energy efficiency resource standard   | Reference   |
|---|---|---|---|
| 1 | Arizona<br>2010<br>Regulatory<br>IOUs (~85%)                                  | ~0.6% incremental savings per year (for cumulative savings of 6% by 2020).  | Docket No. RG-00000B-09-<br>0428 Dec. No. 71855   |
| 2 | Arkansas<br>2010<br>Regulatory<br>IOUs (~60%)                                 | Annual reduction of 0.40% in 2014 and 0.5% in<br>2015.<br>The Commission has withheld a ruling on targets<br>for 2016-2017 pending a potential study. | Order No. 15, Docket No. 08-<br>137-U<br>Order No. 1, Docket No. 13-<br>002-U<br>Order No. 7, Docket No. 13-<br>002-U |
| 3 | California<br>2004 and 2009<br>Legislative<br>IOUs (~82%)                     | 619 gross MMTh between 2012 and 2020.<br>Utilities must pursue all cost-effective efficiency<br>resources.  | CPUC Decision 04-09-060;<br>CPUC Decision 08-07-047;<br>CPUC Decision 14-10-046<br>AB 995                             |
| 4 | Colorado<br>2007<br>Legislative<br>IOUs (~72%)                                | Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue).   | Colorado Revised Statutes 40-<br>3.2-101, et seq.;<br>Docket 10A-554EG<br>Docket No. 13A-0686EG Dec.<br>C14-0731      |

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|    | State     Year enacted     Authority     Applicability     (% sales affected)                        | Natural gas energy efficiency resource standard   | Reference   |
|----|--|---|---|
| 5  | Connecticut<br>2007 & 2013<br>Legislative<br>IOUs (100%)   | Average incremental savings of ~60 MMTherms<br>per year through 2015.<br>Utilities must pursue all cost-effective efficiency<br>resources.<br>Planning is currently underway for the 2016-2018<br>Conservation and Load Management Plan.  | Public Act No. 13-298<br>2013-2015 Electric and<br>Natural Gas Conservation and<br>Load Management Plan |
| 6  | Illinois<br>2007<br>Legislative<br>Utilities with over<br>100,000 customers,<br>Illinois DCEO (~88%) | <ul> <li>8.5% cumulative savings by 2020 (0.2% incremental savings in 2011, ramping up to 1.5% in 2019).</li> <li>Energy efficiency measures may not exceed an established cost-cap. As a result, regulators have approved lower targets in recent years, with incremental electric savings targets varying by utility from ~ 0.5% to 0.7% per year.</li> </ul> | S.B. 1918<br>Public Act 96-0033<br>§ 220 ILCS 5/8-103<br>Case No. 13-0495<br>Case No. 13-0498           |
| 7  | lowa<br>2009<br>Legislative<br>IOUs (100%)   | Incremental savings targets vary by utility, ~0.66%<br>-1.2% annually through 2018.   | <u>Senate Bill 2386</u><br><u>Iowa Code § 476</u><br><u>Docket EEP-2012-0001</u>                        |
| 8  | Maine <sup>10</sup><br>2009<br>Legislative<br>Efficiency Maine (100%)                                | Incremental savings of ~0.3% per year through<br>2016.<br>Efficiency Maine operates under an all cost-<br>effective mandate.  | Efficiency Maine Triennial Plan<br>H.P. 1128 - L.D. 1559  |
| 9  | Massachusetts<br>2009<br>Legislative<br>IOUs, Co-ops, Muni's<br>(100%)                               | Incremental savings of 0.63% in 2010, 0.83% in<br>2011; 1.0% in 2012; 1.1% in 2013 increasing to<br>1.15% by 2015.<br>Planning is currently underway for the 2016-2018<br>cycle.<br>All cost-effective efficiency requirement.  | D.P.U. Order 09-121 through<br>09-128<br>D.P.U. Order 12-100 through<br>12-111<br>M.G.L. ch. 25, § 21;  |
| 10 | Michigan<br>2008<br>Legislative<br>Statewide Goal (100%)   | 0.10% incremental I savings in 2009, ramping up to 0.75% in 2012 and each year thereafter.  | Act 295 of 2008   |
| 11 | Minnesota<br>2007<br>Legislative<br>Statewide Goal (100%)  | 0.75% incremental savings per year in 2010-<br>2012; 1% incremental savings in 2013 and each<br>year thereafter.  | <u>Minn. Stat. § 216B.241</u>   |

<sup>&</sup>lt;sup>10</sup> The Maine Public Utilities Commission voted in March 2015 to restrict funding for Efficiency Maine beginning in 2016. This may result in the inability of Efficiency Maine to operate under its all cost-effective efficiency mandate, at which point we would no longer consider Maine to have an EERS in place.

|    | State     Year enacted     Authority     Applicability     (% sales affected)    | Natural gas energy efficiency resource standard   | Reference  |
|----|--|---|--|
| 12 | New York<br>2008<br>Regulatory<br>Companies with<br>14,000+ customers<br>(~100%) | Incremental savings of ~0.5% per year through<br>2015.<br>EEPS targets through 2015 applied to utilities and<br>NYSERDA. Current REV proceeding includes utility<br>targets equivalent to ~ 0.4% in 2016 but no<br>NYSERDA targets. Future targets are currently<br>under discussion. | NY PSC Order, Case 07-M-<br>0548<br>NY PSC Case 14-M-0101  |
| 13 | Oregon<br>2010<br>Regulatory<br>Energy Trust of Oregon<br>(~89%)                 | 0.3% of sales annually for the period 2015-2019.  | Energy Trust of Oregon 2015-<br>2019 Strategic Plan<br>Grant Agreement between<br>Energy Trust of Oregon and OR<br>PUC |
| 14 | Rhode Island<br>2006<br>Legislative<br>IOUs, Muni's (100%)                       | Incremental savings of 1% in 2015, 1.05% in<br>2016, and 1.1% in 2017.<br>Utilities must acquire all cost-effective energy<br>efficiency.   | <u>R.I.G.L § 39-1-27.7</u><br>Docket No. 4443  |
| 15 | Wisconsin<br>2011<br>Legislative<br>Statewide Goal (100%)                        | Focus on Energy targets include incremental<br>national gas savings of ~0.6% of sales per year in<br>2015-2018.<br>Energy efficiency measures may not exceed an<br>established cost-cap.  | <u>Order. Docket 5-GF-191</u><br><u>Order 9501-FE-120</u><br>2005 Wisconsin Act 141                                    |

For more information on energy efficiency resource standards, please visit <a href="http://aceee.org/topics/energy-efficiency-resource-standard-eers">http://aceee.org/topics/energy-efficiency-resource-standard-eers</a>

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|   | Ameren<br>Missouri<br>Cycle 1<br>Through<br>9/30/2015            | KCPL<br>and GMO<br>Cycle 1<br>Through<br>9/30/2015                            | KCPL<br>and GMO<br>Cycle 2 Plan  |
|---|--|---|--|
| Customer Incentives   | \$0.06/kWh for<br>lighting and<br>\$0.07/kWh for<br>non-lighting | Buy down to<br>lesser of 2 year<br>payback or 50%<br>of incremental<br>costs. | \$0.10/kWh   |
| Brogram Costs Blows of (8)                                  | ¢ 25 704 026   | ¢ 12.262.407  | ¢ 19 333 176   |
| Program Costs - Planned (\$)<br>Program Costs - Actual (\$) | \$ 25,704,936<br>\$ 23,488,357                                   | \$ 12,363,497<br>\$ 24,601,687  | \$ 18,223,176  |
| Program Costs - Variance (\$)                               |  | \$ 12,238,190   |  |
| Program Costs - Variance (%)                                | -8.6%  | 99.0%   |  |
| 110grain Costs - Variance (70)                              | 0.078  | 55.0%   |  |
| Energy Savings - Planned (MWh)                              | 157,914  | 78,439  | 74,441   |
| Energy Savings - Actual (MWh)                               | 224,328  |   |  |
| Energy Savings - Variance (MWh)                             | 66,414   |   |  |
| Energy Savings - Variance (%)                               | 42.1%  | 7.0%  |  |
| Difergy Savings - variance (70)                             | 42.170   |   |  |
| Demand Savings - Planned (MW)                               | 42.1   | 13.9  | 19.9   |
| Demand Savings - Actual (MW)                                | 33.3   | 14.3  |  |
| Demand Savings - Variance (MW)                              | (8.9)  | 0.4   |  |
| Demand Savings - Variance (%)                               | -21.0%   | 3.1%  |  |
| <i>.</i> ,  |  |   |  |
| Net Benefits - Planned (\$)                                 | \$ 86,283,924  | \$ 49,538,487   | \$ 47,467,589  |
| Net Benefits - Actual (\$)                                  | \$ 151,275,503   | \$ 44,456,170   |  |
| Net Benefits - Variance (\$)                                |  | \$ (5,082,317)  |  |
| Net Benefits - Variance (%)                                 | 75.3%  | -10.3%  |  |
|   |  |   |  |
| Planned Net Benefits per                                    | 24   | 4.0   | 26   |
| Planned Program Costs                                       | 3.4  | 4.0   | 2.6  |
| Actual Net Benefits per                                     |  |   | and the second |
| Actual Program Costs  | 6.4  | 1.8   | n/a  |
| 0   |  |   |  |

## **Summary Analysis of C&I Custom Programs**

Note: All annual energy savings, demand savings and net benefits are based on deemed savings and deemed avoided costs.