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Case No. EO-2012-0206
Date Testimony Prepared: February 2012

**Before the Public Service Commission
of the State of Missouri**

Direct Testimony

of

W. Scott Keith

February 2012

TABLE OF CONTENTS
OF
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THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
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	<u>SUBJECT</u>	<u>PAGE</u>
1	INTRODUCTION	1
2	POSITION	1
3	PURPOSE	3
4	INTEGRATED RESOURCE PLAN AGREEMENT	3
5	DEMAND-SIDE INVESTMENT MECHANISM RIDER	6
6	DSM SAVINGS	8
7	DSM BUDGET LEVELS	9

DIRECT TESTIMONY
OF
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THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
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1 **INTRODUCTION**

2 **Q. STATE YOUR NAME AND ADDRESS PLEASE.**

3 A. My name is W. Scott Keith and my business address is 602 S. Joplin Avenue,
4 Joplin, Missouri.

5 **POSITION**

6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am presently employed by The Empire District Electric Company (“Empire” or
8 the “Company”) as the Director of Planning and Regulatory. I have held this
9 position since August 1, 2005.

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

11 A. In August 1973, I received a Bachelor of Business Administration degree with a
12 major in Accounting at Washburn University, Topeka, Kansas.

13 **Q. WHAT EXPERIENCE HAVE YOU HAD IN THE FIELD OF PUBLIC
14 UTILITIES?**

15 A. In 1973, I accepted a position in the firm of Troupe Kehoe Whiteaker & Kent as a
16 staff accountant. I assisted in or was responsible for fieldwork and preparation of
17 exhibits for rate filings presented to various regulatory commissions and audits
18 leading to opinions on financial statements for various types of companies including

1 including utility companies.

2 In September 1976, I accepted a position with the staff of the Kansas Corporation
3 Commission (“KCC”). My responsibilities at the KCC included the investigation of
4 utility rate applications and the preparation of exhibits and presentation of
5 testimony in connection with applications that were under the jurisdiction of the
6 KCC. The scope of the investigations I performed on behalf of the KCC included
7 the areas of accounting, cost of service, and rate design.

8 In March of 1978, I joined the firm of Drees Dunn & Company and continued to
9 perform services for various utility clients with that firm until it dissolved in March
10 of 1991.

11 From March of 1991 until June of 1994, I was self-employed as a utility consultant
12 and continued to provide clients with analyses of revenue requirements, cost of
13 service studies, and rate design. In connection with those engagements, I also
14 provided expert testimony and exhibits to be presented before regulatory
15 commissions.

16 I was employed by Aquila, Inc., as the Director of Regulatory for its electric
17 operations in Kansas and Colorado from 1995 to July 2005.

18 **Q. HAVE YOU PREVIOUSLY PARTICIPATED IN ANY REGULATORY**
19 **PROCEEDINGS?**

20 A. Yes, I have. I have testified before regulatory commissions in the states of
21 Arkansas, Kansas, Colorado, Indiana, Missouri, Oklahoma, and West Virginia. I
22 have also testified before the Federal Energy Regulatory Commission (“FERC”).

1 **PURPOSE**

2 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A. My testimony will provide an overview of Empire’s Missouri Energy Efficiency
4 Investment Act (“MEEIA”) filing with the Missouri Public Service Commission
5 (“Commission”).

6 **Q. PLEASE DESCRIBE EMPIRE’S MEEIA REQUEST.**

7 A. Empire is seeking Commission approval of a new Missouri demand-side
8 management (“DSM”) portfolio, including four new DSM programs, and the
9 implementation of a new Demand Side Investment Mechanism (“DSIM”) Rider to
10 recover the revenue requirement associated with Empire’s new DSM portfolio. The
11 details of Empire’s MEEIA proposal are contained within Empire’s MEEIA report
12 and the appendices to the report. The report is attached hereto as Schedule A and
13 incorporated herein by reference.

14 **INTEGRATED RESOURCE PLAN AGREEMENT**

15 **Q. WHY IS EMPIRE MAKING A MEEIA FILING WITH THE COMMISSION**
16 **AT THIS TIME?**

17 A. Empire is making this MEEIA filing to comply with an agreement reached in
18 Empire’s most recent Integrated Resource Plan (“IRP”) proceeding, Commission
19 Docket No. EO-2011-0066.

20 The agreement reached in the last IRP included the following regarding this Empire
21 MEEIA filing:

22 *Paragraph 7:*

23 *b. As specified in Paragraph 9, Empire agrees to work with the Stakeholder*
24 *Advisory Group to request the Commission’s approval to implement new demand-side*

1 demand-side programs, including the demand-side programs in Empire's preferred
2 resource plan in the September 2010 filing, after the effective date of the Commission's
3 MEEIA rules;

4
5 *Paragraph 9:*

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

10
11 *a. New demand-side programs whose implementation was described during the*
12 *interim period in the September 2010 filing include (1) an **ENERGY STAR®***
13 *washing machine rebate program, (2) a **Residential High Efficiency Lighting***
14 *program, and (3) a **Home Energy Comparison Reports program.***

15
16 *b. As referenced in Paragraph 7.b., to augment the demand-side resource*
17 *portfolio contained in the resource acquisition strategy in the September 2010*
18 *filing, three additional demand-side programs will be considered. These programs*
19 *are a **refrigerator recycling program, an ENERGY STAR® refrigerator rebate***
20 *program and a **pilot ENERGY STAR® dehumidifier rebate program.***

21
22 *c. Empire will, unless advised otherwise by at least two non-utility members of the*
23 *Stakeholder Advisory Group, request the Commission's approval of: 1) the*
24 ***demandside programs identified in Paragraphs 9.a and 9.b., except as described***
25 *in part 9.d., and 2) a **demand-side programs investment mechanism ("DSIM")***
26 ***within nine months of the effective date of the Commission's MEEIA rules***
27 ***during the interim period.***

28
29 *d. If the revised ENERGY STAR® dehumidifier standard has not been published at*
30 *the time specified in Paragraph 9.c., then the pilot ENERGY STAR® dehumidifier*
31 *rebate program shall be considered at a later time than the other demand-side*
32 *programs listed in Paragraphs 9.a. and 9.b. Empire, in consultation with the*
33 *Stakeholder Advisory Group, shall consider this program for implementation*
34 *during the interim period, within three months following the publication by the*
35 *U.S.Environmental Protection Agency's revised standard for ENERGY STAR®*
36 *dehumidifiers.*

37
38 *e. Alternative Demand-Side Programs Cost Recovery Mechanism: In the event the*
39 *cost recovery provisions of the MEEIA rules are not in effect, the parties will*
40 *support a reasonable request for an Accounting Authority Order authorizing the*
41 *Company to accumulate the costs associated with new demand-side programs in*
42 *regulatory asset accounts as the program(s) costs are incurred, unless a*
43 *mechanism concerning these costs is established in File No.ER-2011-0004. The*
44 *amortization of these deferred program costs and the recovery of these deferred*
45 *program costs from the Company's customers, if not later addressed by a DSIM,*
46 *shall be addressed in the Company's subsequent electric general rate proceeding.*

47
48 *Paragraph 10:*

49 *a. Prior to requesting Commission approval of new demand-side programs,*

1 *including new demand-side programs identified in Paragraph 9.a. and 9.b.,*
2 *Empire agrees to confer with the Stakeholder Advisory Group concerning*
3 *program participation levels, design and implementation at least quarterly.*
4

5 *Paragraph 11:*

6 *The Signatories agree to the following provisions with respect to Empire's existing*
7 *demand-side programs. Empire shall consult with the Stakeholder Advisory Group*
8 *concerning the future of Empire's existing portfolio of energy efficiency programs under*
9 *MEEIA or the Commission's MEEIA rules. If Empire determines, in consultation with the*
10 *Stakeholder Advisory Group, that a continuation or modification of any or all of the*
11 *existing programs is warranted, Empire shall file for approval of the such programs and*
12 *for approval of a DSIM under the MEEIA or the Commission's MEEIA rules within nine*
13 *(9) months of the effective date of the Commission's MEEIA rules. Empire agrees to work*
14 *with the Stakeholders Advisory Group and a demand-side consultant, if necessary, to*
15 *analyze the levels of participation and the incentive levels for each of Empire's existing*
16 *demand-side programs and develop a plan that will maximize the savings attributable to*
17 *each program while maintaining Total Resource Cost levels of 1.0 or greater.*
18

19 **Q. DID EMPIRE RETAIN A CONSULTANT IN CONNECTION WITH THIS**
20 **MEEIA FILING?**

21 A. Yes. Empire retained the Applied Energy Group (“AEG”) to re-examine its
22 existing DSM portfolio and analyze the new DSM programs Empire agreed to
23 screen as part of the agreement reached in the latest IRP to determine if the new
24 DSM programs and existing DSM programs were cost effective.

25 **Q. PLEASE DESCRIBE THE RESULT OF AEG'S DSM PROGRAM**
26 **ANALYSIS.**

27 A. AEG, using updated information on avoided costs, the results of the evaluation,
28 measurement and verification that has taken place on Empire's existing DSM
29 programs and updated national DSM program information, determined that all of
30 the new DSM programs Empire agreed to examine in the IRP agreement are cost
31 effective, and all of Empire's existing DSM programs, with one exception, continue
32 to be cost effective using the Total Resource Cost (“TRC”) test.

1 **Q. DOES EMPIRE’S MEEIA FILING INCLUDE THE ADDITIONAL DSM**
2 **PROGRAMS SPECIFIED IN THE EMPIRE IRP AGREEMENT?**

3 A. Yes. Empire’s MEEIA request includes all of Empire’s existing DSM programs
4 and four (4) additional DSM programs. The four additional programs are:

- 5 • A residential high efficiency lighting program,
- 6 • A residential home energy comparison program,
- 7 • An Energy Star appliance rebate program, and
- 8 • A refrigerator recycling program.

9 The Energy Star appliance rebate program encompasses a range of appliances
10 including refrigerators, dehumidifiers, washing machines, and room air
11 conditioners. A more detailed description of each of the demand-side programs that
12 Empire is seeking Commission approval of is included in Empire’s MEEIA report
13 attached hereto.

14 **DEMAND-SIDE INVESTMENT MECHANISM RIDER**

15 **Q. PLEASE DESCRIBE THE DSIM RIDER EMPIRE IS SEEKING TO**
16 **IMPLEMENT.**

17 A. Empire is requesting Commission approval of a rider to recover DSM program
18 costs and incentives (DSM Revenue Requirement) outside of the normal rate case
19 process. As proposed, the rider is designed to recover actual program costs and
20 incentives earned during a program year (calendar year). Under the proposal,
21 Empire would request implementation of DSIM recovery factor by making an
22 annual filing to recover the actual DSM costs and DSM incentives earned in the

1 prior calendar year. As part of the recovery proposal, Empire would create a
2 regulatory asset to capture DSM expenditures and incentives earned during a
3 calendar year.

4 **Q. HOW OFTEN WILL EMPIRE'S DSM RECOVERY FACTOR BE**
5 **ADJUSTED UNDER THE PROPOSAL?**

6 A. The DSM cost recovery factor will be adjusted annually to recover the prior
7 calendar year revenue requirement, any over/under collections of DSM costs and a
8 "true-up" of DSM incentives. The detailed aspects of the DSIM rider, including
9 proposed DSIM tariff sheets, are included as part of Empire's MEEIA report, and
10 attached hereto as Schedule A.

11 **Q WAS A DSIM CONTEMPLATED AS PART OF THE AGREEMENT**
12 **REACHED IN EMPIRE'S LAST IRP?**

13 A. Yes, but the details of the DSIM were not specified.

14 **Q. WILL THE DSIM RESULT IN AN INCREASE IN CHARGES TO**
15 **EMPIRE'S MISSOURI CUSTOMERS?**

16 A. Yes. If Empire's actual DSM expenditures reach the budget levels displayed in
17 Appendix E to Empire's MEEIA report, Empire's Missouri revenue would increase
18 by \$5.4 million in the first year following DSM program implementation. By the
19 end of DSM program year 3, the annual increase in revenue would be
20 approximately \$15.2 million. In terms of percentage increase, these levels of
21 revenue increases for a residential customer range from 1.2 percent in the first year
22 following DSM program implementation to 3.4 percent by the fourth year following
23 DSM program implementation. Empire's MEEIA report includes more information

1 information on the revenue impact of Empire’s DSIM proposal on each of Empire’s
2 customer classes.

3 **Q. DOES EMPIRE’S DSIM PROPOSAL EXCLUDE ANY MISSOURI**
4 **CUSTOMERS?**

5 A. Yes. Empire’s DSIM proposal excludes our lighting tariffs and customers who
6 have “opted out” of our DSM programs. At the present time, two of our larger
7 customers have declined to participate in Empire’s DSM programs and “opted out”.

8 **DSM SAVINGS**

9 **Q. DO THE ESTIMATED ENERGY AND DEMAND SAVINGS PRODUCED**
10 **BY EMPIRE’S PROPOSED DSM PROGRAMS MEET THE GOALS**
11 **OUTLINED IN THE COMMISSION’S MEEIA RULES?**

12 A. Yes. Empire estimates that by the end of DSM program year three, the installed
13 DSM measures will result in savings of approximately 47,115 MWH annually, or
14 approximately 1.2 percent of the annual Missouri sales levels in Empire’s latest
15 Missouri rate case. This savings result is in line with the Commission’s MEEIA
16 rule goal of 1.5 percent kWh savings by 2014. The annual savings levels Empire
17 has estimated in the third program year, excludes all of the savings associated with
18 the DSM measures that have been installed by Empire’s customers over the last four
19 years using Empire’s existing DSM programs.

20 **Q. ARE EMPIRE’S CUSTOMERS REQUIRED TO PARTICIPATE IN THE**
21 **COMPANY’S DSM PROGRAM OFFERINGS?**

22 A. No. Customer participation in Empire’s DSM programs is strictly voluntary, and if
23 Empire’s customers elect not to participate in the energy efficiency programs at the

1 levels forecast in our DSM analysis, the energy and demand savings will not reach
2 the levels estimated by our DSM consultant, AEG.

3 **Q. DO EMPIRE'S CUSTOMERS INCUR COSTS TO PARTICIPATE IN**
4 **EMPIRE'S DSM PROGRAMS?**

5 A. Yes, in certain programs the customer must invest their own money to participate.
6 For example, in the High Efficiency Cooling rebate program, the customer must
7 invest in a more efficient air conditioner to qualify for an Empire rebate. Empire's
8 rebate is not designed to cover 100 percent of the customer's incremental cost.
9 Several of the other programs also involve a level of customer investment. Given
10 the current economic environment, our customers may decide to use their money for
11 something other than energy efficiency. This customer choice will ultimately
12 impact DSM program participation levels.

13 **DSM BUDGET LEVELS**

14 **Q. PLEASE DESCRIBE THE DSM INVESTMENT LEVELS UNDER**
15 **EMPIRE'S MEEIA PROPOSAL.**

16 A. Under Empire's MEEIA proposal, as outlined in Empire's MEEIA report attached
17 hereto as Schedule A, overall DSM program expenditures are expected to increase
18 from the current levels of \$1.5 million per year to \$6.0 million per year in three (3)
19 years.

20 **Q. PLEASE DESCRIBE THE DSIM INCENTIVES UNDER EMPIRE'S MEEIA**
21 **PROPOSAL.**

22 A. Empire's proposed DSIM incentive is directly tied to the cost and impact of the
23 various DSM measures installed during a calendar year. If the DSM expenditures

1 and customer participation levels do not reach the levels projected by AEG, the
2 DSIM incentives automatically decline under Empire's proposal. Empire's DSIM
3 incentives are directly tied to DSM program performance. Increases or decreases in
4 DSM program performance result in a corresponding increase or decrease in the
5 level of shared benefits included as a DSIM incentive. If actual DSM program
6 expenditures are lower than those estimated by AEG, the enhanced rate of return,
7 which Empire has proposed as a DSIM incentive would also decline. Each of the
8 DSIM incentive components Empire has proposed are tied directly to actual DSM
9 program performance, including actual customer participation and actual program
10 expenditures.

11 **Q. IS EMPIRE'S DSIM PROPOSAL A CRITICAL COMPONENT OF THE**
12 **MEEIA FILING?**

13 A. Yes. If the Commission does not authorize a DSIM Rider that recovers Empire's
14 DSIM revenue requirement in a timely manner, Empire would be forced to re-
15 examine the level of DSM investment proposed in this filing, and, at the very least,
16 restrict its investment to the DSM investment levels agreed to in the last rate case.

17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

18 A. Yes.

