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Case No.
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Before the Missouri Public Service Commission

Direct Testimony

of

Jayna R. Long

February 2006

Empire Exhibit No. 23
Case No(s) ER-2006-0315
Date 9-05-06 Rptr PF

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OF
JAYNA R. LONG
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION

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DIRECT TESTIMONY
OF
JAYNA R. LONG
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO.

1 **INTRODUCTION**

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

3 A. Jayna R. Long.

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

5 A. The Empire District Electric Company ("Empire" or "Company"), as a
6 Regulatory Analyst.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
8 **BACKGROUND FOR THE COMMISSION.**

9 A. I hold a Bachelor of Science degree in Business Administration with majors in
10 accounting and marketing from Missouri Southern State University. I was
11 employed by Leggett & Platt, Inc. immediately following my graduation in 1993
12 where I held various positions as an accountant at the Corporate Office and then
13 was promoted to Division Controller. I have also served as a Plant Controller for
14 Invensys Inc. and Controller for Clark Industries. In May 2001, I joined Empire
15 as a Senior Internal Auditor where I remained until October 2003. At that time I
16 accepted my current position.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE**
18 **BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION**

1 **(“COMMISSION”)?**

2 A. The testimony will provide an explanation of the adjustments made to Empire’s
3 Missouri jurisdictional revenue for the test year.

4 **Q. WHAT IS THE NATURE OF THESE ADJUSTMENTS?**

5 A. Total Company and Missouri jurisdictional revenues included in the test year
6 have been adjusted to reflect customer numbers as of September 30, 2005 for
7 customer growth, normalized weather, and to reflect the rate increase and the
8 Interim Energy Charge (“IEC”) authorized by the Commission in Case No. ER-
9 2004-0570. In addition, the kilowatt-hours (“kWh”) sales and revenue were
10 adjusted to reflect the effect of unbilled sales and revenues in order to properly
11 match test year generation and fuel expense.

12
13 **CUSTOMER GROWTH ADJUSTMENT**

14 **Q. PLEASE DESCRIBE THE ADJUSTMENT RELATED TO CUSTOMER**
15 **GROWTH.**

16 A. Missouri jurisdictional revenues have been adjusted to reflect what the revenue
17 that would have been generated if the number of customers at September 30, 2005
18 had been served by the Company for the entire test year. For the Residential
19 customer class and Commercial classes of CB, SH and TEB and Industrial group
20 GP the differences in September 30, 2005 level of customers and the average
21 customers billed in each month of the test year were multiplied by the average
22 weather normalized kWh per customer for that month. The resulting change in

1 kWh sales was then multiplied by the average class weather normalized cost per
2 kWh to obtain the revenue adjustment for customer growth.

3 The Industrial customer class LP was reviewed on an individual customer basis to
4 calculate the impact of customer growth. In total the customer growth adjustment
5 to revenue was an increase of \$4,332,239 and an increase in kWh sales of
6 66,579,541.

7 **WEATHER NORMALIZATION ADJUSTMENT**

8 **Q. WAS THE REVENUE ADJUSTED FOR THE AFFECT OF WEATHER?**

9 A. Yes. The test year sales and revenue were adjusted to account for the impact of
10 abnormal weather.

11 **Q. PLEASE EXPLAIN.**

12 A. Electricity use is sensitive to weather conditions in the Empire service area. Due
13 to the use of air conditioning and electric space heating in Empire's territory, a
14 significant portion of Empire's load is directly affected by daily temperatures.
15 The weather during the test year differed from normal conditions and test year
16 revenue and sales were adjusted to eliminate this impact.

17 **Q. PLEASE DESCRIBE THE PROCEDURE USED IN CALCULATING THE**
18 **ADJUSTMENT FOR WEATHER.**

19 A. Empire used the Electric Power Research Institute ("EPRI") Hourly Electric Load
20 Model ("HELM") to calculate the weather adjustment to customer class usage.
21 This is the same model used by Empire in its last electric rate Case No. ER-2004-
22 0570. HELM uses hourly load data by class to estimate the response to daily
23 weather for each weather sensitive class of customers. Weather normalized usage

1 by customer class is then calculated for each month to determine normal weather
2 variables based on estimated response. The weather variables are then matched to
3 the actual usage over the time period that the usage was recorded. The weather
4 adjustment is then calculated for each class by taking the difference between the
5 normalized usage and actual recorded usage.

6 **Q. PLEASE EXPLAIN THE INPUTS TO THE MODEL.**

7 A. The four data inputs to the model include monthly class usage, hourly class load
8 data, actual daily weather variables, and normal daily weather variables. The
9 edited National Oceanic and Atmospheric Administration ("NOAA") weather of
10 the Springfield, Missouri weather station was used to obtain the actual and normal
11 daily weather variables.

12 **Q. WHAT CUSTOMER CLASSES WERE EVALUATED FOR THE**
13 **WEATHER ADJUSTMENT?**

14 A. The Residential customer class, the Commercial group of CB, SH, and TEB
15 classes and the Industrial GP class were included in the weather normalization.
16 The other customer classes are not significantly weather sensitive and were not
17 included.

18 **Q. HOW WAS THE REVENUE ADJUSTMENT DUE TO WEATHER**
19 **CALCULATED?**

20 A. For appropriate rate schedules considered in the adjustment the average price of
21 electricity for each month in the test period was multiplied by the kWh
22 adjustments to derive the revenue adjustment by customer class. The sum of the
23 individual monthly revenue adjustments were then used to determine the test year

1 revenue adjustment for that customer class. The adjustment for weather resulted
2 in a decrease to revenue of \$2,605,157 and a decrease to kWh sales of
3 20,814,000.

4 **RATE INCREASE AND INTERIM ENERGY CHARGE**

5 **Q. PLEASE EXPLAIN THE REVENUE ADJUSTMENT RELATED TO THE**
6 **RATE INCREASE AND IEC AUTHORIZED BY THE COMMISSION IN**
7 **CASE NO. ER-2004-0570.**

8 A. A rate increase and related IEC became effective on March 27, 2005 as a result of
9 the Commission's decision in Case No. ER-2004-0570. The adjustment reflects
10 the increase in revenues had the rate increase occurred on October 1, 2004 rather
11 than March 27, 2005. Likewise, the IEC adjustment reflects the additional IEC
12 revenue that would have been generated had the mechanism been in place for the
13 full test year rather than a partial year. The adjustments for the rate increase and
14 IEC resulted in an increase in revenue of \$12,298,364 and \$3,987,021
15 respectively.

16 **CONCLUSION**

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

18 A Yes, it does.