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Issues: Class Cost of Service
Witness: James C. Watkins
Sponsoring Party: MoPSC
Type of Exhibit: Surrebuttal Testimony
Case No.: ER-2001-299
Date Testimony Prepared: May 17, 2001

MISSOURI PUBLIC SERVICE COMMISSION
UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

JAMES C. WATKINS

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2001-299

Jefferson City, Missouri
May, 2001

Exhibit No. 76
Date 6/29/01 Case No. ER-2001-299
Reporter KRM

SURREBUTTAL TESTIMONY
OF
JAMES C. WATKINS
THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2001-299

1 Q. Please state your name and business address.

2 A. My name is James C. Watkins and my business address is Missouri Public
3 Service Commission, 200 Madison Street, P. O. Box 360, Jefferson City, Missouri 65102.

4 Q. Are you the same James C. Watkins who previously filed direct and rebuttal
5 testimony on the issue of customer class cost of service in this case?

6 A. Yes, I am.

7 Q. What is the purpose of your rebuttal testimony in this case?

8 A. The purpose of my rebuttal testimony is to respond to the unsubstantiated,
9 false, and misleading claims made in the rebuttal testimony of Intervenor Praxair's
10 witness Maurice Brubaker.

11 Q. Has Mr. Brubaker summarized his principal points and conclusions
12 regarding the Staff's customer class cost of service study?

13 A. Yes, Mr. Brubaker's summary appears on page 2, as items 2.a. - 2.f., and
14 on page 3, as item 3., of his rebuttal testimony.

15 Q. What is the first problem that Mr. Brubaker finds with the Staff's study?

Surrebuttal Testimony
James C. Watkins

1 A. Mr. Brubaker claims in item 2.a. that the Staff's study merely scales up
2 class allocation factors from Empire's last case, despite the fact that there are significant
3 changes to Empire's generation system.

4 Q. Please respond.

5 A. Nowhere in Mr. Brubaker's testimony does he provide any evidence to
6 substantiate his claim that there have been significant changes to Empire's generation
7 system. While Empire is indeed installing additional generating capacity, the State Line
8 Combined Cycle Plant, this capacity is primarily replacing capacity purchase contracts
9 that are expiring. Mr. Brubaker has not even attempted to show how this substitution of
10 generating capacity would result in a significant change to Empire's generation system or
11 the operation thereof.

12 Q. What is the second problem that Mr. Brubaker finds with the Staff's
13 study?

14 A. Mr. Brubaker claims in item 2.b. that the actual capacity cost of Empire's
15 system is not derived from the Staff's model.

16 Q. Please respond.

17 A. Mr. Brubaker is correct. The actual capacity cost of Empire's system is
18 not derived from any Staff model. The actual capacity cost of Empire's system is what it
19 is. It is not, and should not be, derived from any model. The purpose of any capacity
20 allocator is only to apportion responsibility for the actual capacity cost, whatever it is,
21 among the customer classes.

22 Q. What is the third problem that Mr. Brubaker finds with the Staff's study?

1 A. Mr. Brubaker claims in item 2.c. that the relationships produced by the
2 Staff's model are erratic and unstable as shown in his schedules 1 and 2.

3 Q. Please respond.

4 A. Mr. Brubaker's graphs, whether intentional or not, are extremely
5 misleading. The graphs are incorrectly labeled and are the result of ignoring two facts
6 regarding Empire's system load when viewed in load duration form; i.e., from highest to
7 lowest, rather than chronologically. First, particularly at the highest load levels, the load
8 level may change by more than one megawatt from load level to load level. Second, the
9 number of hours that the load remains at a particular load level also varies. Thus, if
10 marginal fuel costs are increasing smoothly at \$0.03 per MW of increase in load over
11 some load range and load increases by 7 MW, the result should be that marginal fuel
12 costs increased by \$0.21 ($\0.03×7 MW) when load increased by 7 MW. This would be
13 seen as an erratic change in Mr. Brubaker's plots. A further complication affects Mr.
14 Brubaker's plots of capacity costs. In these plots he ignores the duration of each load
15 level. Thus, if capacity costs are smoothly increasing by \$10 per MW over some load
16 range and the duration of the load falls from 10 hours to 5 hours as load increases by one
17 MW, the cost per MW per hour would go from \$1.00 per MW per hour ($\$10.00/10$ hours)
18 to \$2.00 per MW per hour ($\$10.00/5$ hours) and we would see this as an erratic change in
19 Mr. Brubaker's plots.

20 Mr. Brubaker has not provided a comparison of the analysis he performed
21 on Staff's model to the results of the same analysis performed on his own model. What
22 could be more "erratic" than assigning all of the capacity costs to the peak hour(s) and
23 none to all other hours?

1 Q. What is the fourth problem that Mr. Brubaker finds with the Staff's study?

2 A. Mr. Brubaker claims in item 2.d. that the results produced by the Staff's
3 model are unrepresentative of the capacity costs on Empire's system.

4 Q. Please respond.

5 A. This appears to be the identical criticism leveled in 2.b. Empire's capacity
6 costs are not determined by modeling. They are what they are.

7 Q. What is the fifth problem that Mr. Brubaker finds with the Staff's study?

8 A. Mr. Brubaker claims in item 2.e. that any relationship between the results
9 produced by the Staff's model and the costs of serving customers on Empire's system
10 would be purely accidental.

11 Q. Please respond.

12 A. Based on Mr. Brubaker's discussion at the bottom of page 13, it appears
13 that this is once again the same claim previously made in 2.b. and 2.e. Once again, this
14 claim makes absolutely no sense. I am baffled by the implication of Mr. Brubaker's
15 testimony to the effect that a spreadsheet model for calculating an allocation factor
16 should, or could, be used to determine Empire's total capacity costs.

17 The only criterion applicable to evaluating an allocation methodology is
18 whether it leads to just and reasonable rates. In this regard, Staff's methodology leads to
19 the result that all customers are charged the same price in the same hour for generating
20 capacity. This is certainly an equitable and reasonable result. Mr. Brubaker declines to
21 indicate what the implications are for rates based on adopting his proposed allocation
22 methodology.

23 Q. What is the sixth problem that Mr. Brubaker finds with the Staff's study?

Surrebuttal Testimony
James C. Watkins

1 A. Mr. Brubaker claims in item 2.f. that the Staff's study treats interruptible
2 customers inappropriately because it results in the estimated cost to serve the load on a
3 firm basis.

4 Q. Please respond.

5 A. I agree with Mr. Brubaker in that the Staff's model does estimate the cost
6 to serve firm load; however, I strongly disagree that this is inappropriate. Interruptible
7 customers should pay the same rates for usage of electricity as any similar customer that
8 is not interruptible; however, an interruptible customer should receive a credit for its
9 agreement to interrupt load upon request. The amount of the credit paid to the customer
10 for interruptible load should be based on the utility's avoided costs.

11 Mr. Brubaker's methodology, on the other hand, results in estimating only
12 the cost of serving Praxair's 300 kW of firm (uninterruptible) load. Mr. Brubaker would
13 have us believe that Empire incurs no additional cost at all to serve the other 8,000 kW of
14 Praxair's load.

15 Q. Does Mr. Brubaker's study allocate costs to only the firm portion of other
16 interruptible customers' load?

17 A. No, this special treatment is accorded only to Praxair. Interruptible
18 customers taking service under Rider IR are not afforded this treatment. Interruptible
19 customers taking service under Schedule PF-Electric Furnace Primary Service are not
20 afforded this treatment. Furthermore, lighting customers are treated as if their peak loads
21 were occurring during on-peak hours.

22 Q. What is the seventh problem that Mr. Brubaker finds with the Staff's
23 study?

1 A. Mr. Brubaker claims in item 3 that the Staff's study fails to address the
2 cost of serving the lighting and furnace classes.

3 Q. Please respond.

4 A. This is correct. The Staff does not believe that a customer class cost-of-
5 service study is the appropriate way to address the costs of serving these classes.

6 Lighting service includes poles, fixtures, glassware, bulbs, inspection and
7 replacement of broken lamps or glassware, and repainting steel poles in addition to
8 electric service. The costs of these services are not related to the factors usually used for
9 allocating costs in a customer class cost-of-service study---customer numbers, demands,
10 or kWh sales. Furthermore, the application of "traditional" allocation methods, such as
11 the one chosen by Mr. Brubaker, is flawed because such methods allocate either too much
12 capacity cost by assuming that peak lighting loads occur during peak hours, or no
13 capacity costs at all when it is assumed that lighting load is zero during peak hours.

14 Service to electric furnaces is on an interruptible basis, only when the Company
15 has facilities available, and only during Company-specified hours each day. Again,
16 additional analysis beyond that afforded in a customer class cost-of-service study is
17 required in order to determine the cost of providing this service.

18 Q. Does Mr. Brubaker have any other criticisms of the Staff's methodology
19 that are not summarized on pages 2 and 3?

20 A. Yes. On page 6 of Mr. Brubaker's rebuttal testimony, beginning on line 14
21 and appearing in bold print, is the statement that "[t]he methodology which Mr. Watkins
22 used is not described in the NARUC cost allocation manual, nor have I seen this particular
23 method used in any other jurisdiction."

1 Q. Please respond.

2 A. The Staff's time-of-use methodology is described as the Probability of
3 Dispatch Method on page 62 of the NARUC Electricity Cost Allocation Manual, January,
4 1992. The manual also contains a discussion of why this method may not be popular with
5 electric utilities and consultants:

6 It must be noted that this method has substantial input data and
7 analysis requirements that may make it prohibitively expensive for
8 utilities that do not develop and maintain the required data.

9 Q. What action do you recommend that the Commission take with regard to
10 customer class cost-of-service issues?

11 A. I recommend that the Commission find (1) that the "Average & Excess"
12 peak responsibility method is not a reasonable method for allocating production and
13 transmission costs, (2) that the Staff's "Time-of-Use" (TOU) allocation of production and
14 transmission costs is the most reasonable method, (3) that generating capacity costs should
15 be allocated to each class's entire load, not only to the firm load, and (4) that the Staff's
16 customer class cost-of-service study is therefore the most reasonable study presented for the
17 Commission to consider in this case.

18 I further recommend that the Commission order that any overall rate increase
19 ordered by the Commission be applied in a manner consistent with the Staff's class cost-of-
20 service study results as recommended in the direct, rebuttal, and surrebuttal testimony of
21 Staff witness Janice Pyatte.

22 Q. Does this conclude your prefiled surrebuttal testimony?

23 A. Yes.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

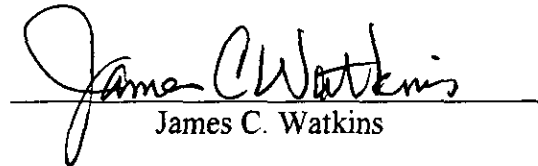
IN THE MATTER OF THE)
APPLICATION OF THE EMPIRE)
DISTRICT ELECTRIC COMPANY FOR)
A GENERAL RATE INCREASE.)

Case No. ER-2001-299

AFFIDAVIT OF JAMES C. WATKINS

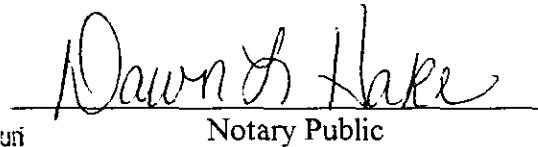
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

James C. Watkins, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written testimony in question and answer form, consisting of 7 pages of testimony to be presented in the above case, that the answers in the attached written 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.


James C. Watkins

Subscribed and sworn to before me this 17th day of May, 2001.

My commission expires _____
DAWN L. HAKE
Notary Public – State of Missouri
County of Cole
My Commission Expires Jan 9, 2005


Notary Public