

Exhibit No.:
Issue: Jurisdictional Allocations
Witness: Syed K. Ahmad
Sponsoring Party: MoPSC Staff
Case Nos.: EO-97-144 and EC-97-362

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

UTILICORP UNITED, INC.

d/b/a MISSOURI PUBLIC SERVICE

CASE NOS. EO-97-144 and EC-97-362

DIRECT TESTIMONY

OF

SYED K. AHMAD

*Jefferson City, Missouri
March 1997*

****Denotes Highly Confidential Information****

NP

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

Direct Testimony of
Syed K. Ahmad

1 section of the utility. There I was involved in the planning, operation and maintenance of T&D
2 facilities.

3 In June 1993, after receiving my M.S., I worked for a Texas-based corporation,
4 Cartotech. This firm provides computer based services (AM/FM/GIS services) for North American
5 utilities, municipalities, and other industries. I was involved in project implementation for data
6 collection, data conversion and quality control for underground and overhead primary electrical
7 distribution systems. Since August 1994, I have been employed by the Commission.

8 Q. Are you a member of any professional organization?

9 A. Yes, I am an Engineer-in-Training (EIT) under the laws of the State of Missouri
10 and a member of the National and Missouri Society of Professional Engineers.

11 Q. Have you filed testimony previously before the Commission?

12 A. Yes, I have filed testimony before the Commission in Case No. ER-97-81.

13 Q. What is the purpose of your testimony in this proceeding?

14 A. The purpose of my testimony is to sponsor (a) selection of a jurisdictional
15 allocation methodology, (b) use of the selected method to determine allocation factors, (c) use of
16 these allocation factors for allocating generation & transmission facilities, (d) allocation factors for
17 distribution plant, (e) allocation factors for fuel inventory, and (f) allocation factors for system
18 energy losses.

19 Q. Are you able to perform all the above stated tasks and sponsor the stated
20 allocations?

21 A. No, due to the partial data responses, I could not finish all the above tasks.

Direct Testimony of
Syed K. Ahmad

1 Q. When did you issue Data Requests to Missouri Public Service (MPS or
2 Company) or to UtiliCorp United (UCU)?

3 A. The first data request, which required data for allocation calculation, Data
4 Request (DR) No. 2913 was issued on August 13, 1996 to UCU in the UtiliCorp and Kansas City
5 Power & Light Company merger Case No. EM-96-248. The second, DR No. 2901 (requesting the
6 same information as requested in DR No. 2913), was issued on October 29, 1996 with the dismissal
7 of Case No. EM-96-248 and the establishment of Case No. EO-97-144 (an investigation docket of
8 MPS' earnings). The third and last DR, No. 2907, was issued on January 30, 1997.

9 Q. Did you receive response to any of the DRs stated above?

10 A. Yes, I received the response to DR No. 2901 as a partial response on
11 February 10, 1997. DR No. 2913 went unanswered by MPS, although it was outstanding for over
12 two months. Additionally, DR No. 2907 has also gone unanswered and is currently over one month
13 delinquent.

14 Q. Were you able to perform any of the tasks listed on Page 2, lines 14-18, using
15 data filed by MPS in compliance with 4 CSR 240-20.080 (20.080 data)?

16 A. Yes, I was able to perform task (a) listed on Page 2, line 14 (i.e., select a
17 jurisdictional allocation methodology) using 20.080 data.

18 **Analyses For Jurisdictional Allocation Methodology**

19 Q. Please define "jurisdictional allocation".

20 A. As recognized in the National Association of Regulatory Utility Commissioners
21 (NARUC) Allocation manual, "A utility that operates in both inter and intra state commerce will
22 be regulated by both federal and state jurisdictions and any lack of consistency between the two

Direct Testimony of
Syed K. Ahmad

1 regulatory bodies can lead to over-collection or under-collection of revenue by the utility.” Thus,
2 a jurisdictional allocation study is used to apportion the cost of generation and transmission assets,
3 included in the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts
4 (USOA) 310 - 346 for Generation and 350 - 358 for Transmission, between the jurisdictions served
5 by the Company.

6 Q. Please identify the jurisdictions served by the Company.

7 A. MPS provides retail and wholesale services in the State of Missouri. Retail
8 service is regulated by the Commission with wholesale service regulated by FERC.

9 Q. What methodology would you use in performing the jurisdictional allocations
10 for the Company’s retail and wholesale services?

11 A. I would probably use the four coincident peak (4 CP) hour or the 12 CP
12 methodology, but am unable to make such a definitive conclusion due to the lack of necessary
13 information.

14 Q. What is meant by CP?

15 A. Coincident Peak is the highest one hour demand for power, in megawatts
16 (MW), occurring in a particular month.

17 Q. Why use peak demand as the basis for allocations?

18 A. Peak demand is the highest electric power requirement occurring in a given
19 period (e.g. a day, month, season, or year). For an electric system, it is equal to the sum of the
20 metered net outputs of all generators within the Company’s system plus any metered line flows into
21 the system, less any metered line flows out of the system. Since generating units and transmission
22 lines are designed and planned to meet the peak demand, the individual contribution to peak demand

Direct Testimony of
Syed K. Ahmad

1 is the appropriate factor for the allocation of facility costs. MPS monitors and logs the peak
2 demand information for every hour of every day during the year, as do all electric utility companies.

3 Q. Please describe the procedure for calculating the jurisdictional allocation factor.

4 A. The jurisdictional allocation factors are calculated by dividing a) the megawatts
5 (MW) required in each jurisdiction during the CP hour by b) the MW used throughout the entire
6 system during the same hour.

7 Q. What would be necessary in order to definitively decide whether to recommend
8 the 4 CP or 12 CP method?

9 A. I would need to have the entire data set for the test year and would need to
10 perform the analysis on this data set. This data set would include the hourly peak demand
11 information previously described.

12 Q. Did you have the entire data set?

13 A. No, the Company did not respond to the DR. Therefore I used 20.080 data.

14 Q. How did you perform the analysis?

15 A. I performed three different analyses of the 20.080 data before selecting the 4
16 CP method.

17 *Analysis I:* Schedule 1 shows MPS's historical peak loads from January 1992 to December 1994
18 and the test year (i.e., January 1995 to December 1995). The table in Schedule 1 represents the
19 peak loads in MW, as a percentage of that year's annual peak (AP) and are averaged over the three
20 years. The load curve in Schedule 1 represents the comparison between the three year average and
21 the test year's actual monthly peak. It can be observed from the load curve of Schedule 1 that

Direct Testimony of
Syed K. Ahmad

1 MPS's load peaks during the months of June, July, August and September and drops to a minimum
2 in April or October.

3 *Analysis II:* Schedule 2 illustrates the relationship between ratios of the Company's lowest monthly
4 peak demand to the Company's highest monthly peak demand for each given year. The table in
5 Schedule 2 states: the month of lowest peak demand, as a percentage of that year's AP demand;
6 month of highest peak demand, as a percentage of that year's AP demand; and, lowest monthly peak
7 to highest monthly peak ratio. It can be seen from Schedule 2 that MPS consistently experienced
8 its lowest peak demand in the month of April, whereas the highest peak demand typically occurs
9 in the months of June, July and August. Schedule 2 also shows that over the last four years, MPS's
10 minimum monthly demand has an average of **_____** of the maximum peak demand.

11 *Analysis III:* Schedule 3 shows the differential in growth between peak and off peak load. It can
12 be noted from Schedule 3 that the Company's load averaged over the last four years varies from
13 peak season to off peak season by nearly **_____**.

14 Q. How was the load data gathered?

15 A. The load data for historical analysis and test year was taken from the data filed
16 by MPS in compliance with 4 CSR 240-20.080.

17 Q. Please summarize the load analyses.

18 A. All three analyses described above reflect that MPS experienced definite peaks
19 during the summer months of June, July, August and September of the test year, which strongly
20 supports the 4 CP method.

21 Q. Were you able to calculate jurisdictional allocation factors for the Company's
22 Generation and Transmission (G&T) plant?

Direct Testimony of
Syed K. Ahmad

1 A. No, as indicated earlier on Page 2, line 21, I was unable to do so due to the
2 inadequate data responses.

3 Q. What allocation factors has Staff used for the jurisdictional allocation of
4 Generation and Transmission (G&T) plant?

5 A. At this point I recommend that the Commission use the Company's allocation
6 factors provided in its response to DR No. 47. The allocation factor for retail is **____** and
7 for wholesale it is **____**.

8 Q. What allocation factors do you recommend using for the jurisdictional allocation
9 of energy costs?

10 A. I recommend using the Company's allocation factors provided in its response
11 to DR No. 47. The allocation factor for retail is **____** and for wholesale it is **____**.

12 Q. Does this conclude your testimony?

13 A. Yes, it does.

SCHEDULE 1

**DEEMED TO BE
HIGHLY CONFIDENTIAL
IN ITS ENTIRETY**

SCHEDULE 2

**DEEMED TO BE
HIGHLY CONFIDENTIAL
IN ITS ENTIRETY**

SCHEDULE 3

**DEEMED TO BE
HIGHLY CONFIDENTIAL
IN ITS ENTIRETY**

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

The Staff of the Missouri Public
Service Commission,

Complainant,

v.

UtiliCorp United Inc.,
d/b/a Missouri Public Service,

Respondent.

Case Nos. EO-97-144 and EC-97-362

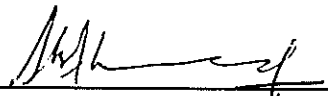
AFFIDAVIT OF SYED K. AHMAD

STATE OF MISSOURI)

ss.

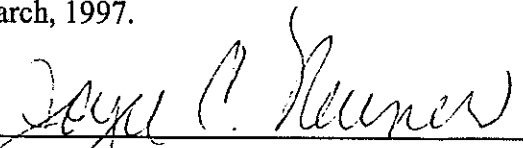
COUNTY OF COLE)

Syed K. Ahmad, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form consisting of 7 pages and 3 schedules to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.



SYED K. AHMAD

Subscribed and sworn to before me this 26th day of March, 1997.



Notary Public

My Commission Expires: _____

JOYCE C NEUNER
NOTARY PUBLIC STATE OF MISSOURI
OSAGE COUNTY
MY COMMISSION EXP JUNE 18, 1997