

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Ameren Services Company

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Docket No. ER02-929-000

**PREPARED DIRECT & ANSWERING TESTIMONY OF
PATRICK R. CROWLEY**

**WITNESS FOR THE STAFF OF THE
FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION**

**Washington, DC
June 19, 2003**

**United States of America
before the
Federal Energy Regulatory Commission**

Ameren Services Company)

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**Prepared Direct & Answering Testimony of
Patrick R. Crowley
Witness for the Trial Staff of the
Federal Energy Regulatory Commission**

1 **Q. Please state your name and business address.**

2 A. My name is Patrick R. Crowley. My business address is 888 First Street, N.E.,
3 Washington, D.C. 20426. I am employed by the Federal Energy Regulatory Commission
4 (FERC or Commission) as an Economist in the Office of Administrative Litigation.

5

6 **Q. Please summarize your qualifications.**

7 A. My educational background and professional qualifications are as follows: I
8 graduated from DePaul University in Chicago, Illinois, in 1976 with a Bachelor of Arts
9 degree in Economics. In 1978, I received a Master of Arts degree in Economics from
10 DePaul University. I began work at the Commission in 1979 as an Industry Economist in
11 the Pipeline Rates Division of the Office of Pipeline Rates. As an expert witness with the
12 Staff litigation team from 1979 to 1992, I prepared pipeline depreciation studies, long-

1 term forecasts of natural gas reserves and production, mortality studies of plant
2 investment and retirements, cost behavior studies for pipeline facilities, and Mcf/mile
3 studies. From 1992 through 1994, I worked on two teams shepherding the restructuring
4 of two major gas pipeline companies. From 1994 through 1998, I worked on the advisory
5 side of the Commission where I prepared reports for Commission orders regarding
6 proposals for revised tariff terms; new services, rate designs, and tariff rates; and a wide
7 variety of utility reports and cost studies. In 1998, I returned to the litigation side of the
8 Commission where I now work on electric utility, natural gas pipeline, and oil pipeline
9 rate cases and complaint cases.

10

11 **Q. Have you previously filed testimony before the FERC?**

12 A. Yes, I have previously filed testimony before the Commission in the following rate
13 cases:

14 Black Marlin Pipeline Company, Docket No. RP81-67-000;
15 Tarpon Transmission Company, Docket No. RP84-82-000;
16 National Fuel Gas Supply Corporation, Docket No. RP86-136-000;
17 Pacific Gas Transmission Company, Docket No. RP87-62-000;
18 Sea Robin Pipeline Company, Docket No. RP88-181-000;
19 Natural Gas Pipeline Company of America, Docket No. RP88-209-000;
20 Paiute Pipeline Company, Docket No. RP88-227-000;
21 Southwest Gas Storage Company, Docket No. RP89-60-000;
22 Montana Power Company, Docket No. ER98-2382-000;
23 Big West Oil Co. & Chevron Products Co. v Anschutz Ranch East Pipeline Co.
24 & Express Pipeline Partnership, Docket No. OR02-1-000 & OR02-3-000;
25 Big West Oil Co. & Chevron Products Co. v Frontier Pipeline Inc.
26 & Express Pipeline Partnership, Docket No. OR02-2-000 & OR02-4-000;

1 Boston Edison Company, Docket No. ER01-890-000;
2 Avista Corporation & Avista Energy, Docket No. EL02-115-000.
3
4

5 **Q. What is the purpose of your testimony?**

6 A. The purpose of this testimony is to present my recommendation regarding the
7 proper billing credit by Ameren Services Company (Ameren) for Citizens Electric
8 Corporation's (Citizens) customer-owned facility known as Line Section Z, which FERC
9 Trial Staff witness James Ballard determined to be a network transmission facility in the
10 Ameren system. Line Section Z is described by FERC Staff witness James Ballard in
11 Exhibit No. S-1.

12

13 **Q. In addition to your written testimony in this case, are you sponsoring any**
14 **supporting exhibits?**

15 A. Yes. I am sponsoring Exhibit No. S-9, which consists of workpapers supporting
16 FERC Trial Staff's recommended billing credit.

17

18 **Q. What is the relevant regulation regarding the crediting of facilities?**

19 A. Order No. 888 provides that credits for customer-owned facilities are to be
20 addressed on a case-by-case basis. The Order focused on the question of whether the
21 customer-owned facilities are integrated with the transmission system of the transmission

1 provider as well as whether the facilities provide additional benefits to the transmission
2 grid in terms of capability and reliability. Section 30.9 of the *pro forma* open access
3 tariff attached to Order No. 888 provides for the crediting of customer-owned
4 transmission facilities. The Order did not address the question of the appropriate method
5 of calculating the credits.

6
7 **Q. What does Section 30.9 of Ameren's Open Access Transmission Tariff**
8 **(OATT) provide regarding credits for customer-owned facilities?**

9 A. Section 30.9 of Ameren's OATT tariff essentially mirrors the Order No. 888 *pro*
10 *forma* tariff:

11 **30.9 Network Customer Owned Transmission Facilities:**

12 The Network Customer that owns existing transmission facilities that
13 are integrated with the Transmission System may be eligible to receive
14 consideration either through a billing credit or some other mechanism.

15 In order to receive such consideration the Network Customer must
16 demonstrate that its transmission facilities are integrated into the plans
17 or operations of the Transmission Provider to serve its power and
18 transmission customers. For facilities constructed by the Network
19 Customer subsequent to the Service Commencement Date under Part
20 III of the tariff, the Network Customer shall receive credit where such
21 facilities are jointly planned and installed in coordination with the
22 Transmission Provider. *Calculation of the credit shall be addressed*
23 *in either the Network Customer's Service Agreement or any other*
24 *agreement between the parties.* (Italics added.)
25

26 **Q. Does either the Service Agreement for Network Integration Transmission**
27 **Service between Ameren and Citizens or the Service Agreement for Network**

1 **Operating Agreement between Ameren and Citizens address the calculation of the**
2 **credits?**

3 A. No. Neither of the two unexecuted Service Agreements included in the May 22,
4 2002 revised filing in this docket by Ameren addresses the question of whether credits
5 should be made or how they would be calculated.

6
7 **Q. Once a customer-owned facility is determined to be a network integrated**
8 **facility eligible for billing credits, what percentage of the costs of the facility should**
9 **be included in the billing credit calculation?**

10 A. Once a customer-owned facility is determined to be a network integrated facility
11 eligible for billing credit, 100% of the costs associated with building and operating the
12 facility should be included in the calculation of the revenue requirement.

13
14 **Q. How should the credit for customer-owned transmission facilities be**
15 **calculated?**

16 A. The credit for customer-owned transmission facilities should be calculated by
17 determining the annual revenue requirement for the facilities in question. The monthly
18 revenue requirement is then deducted from the transmission provider's monthly charges
19 to the transmission customer.

20

1 **Q. How did you calculate the revenue requirement for Line Section Z?**

2 A. My revenue requirement calculations for Line Segment Z are shown in Exhibit No.
3 S - 9, which is adapted from Mr. Reising's revenue requirement model in Exhibit No.
4 CEC-12, CEC-13, and CEC-14. I made two adjustments to Mr. Reising's model: 1) an
5 adjustment to plant in service and associated O&M expenses included in the calculation
6 of the billing credit; and 2) an adjustment to accumulated reserve for depreciation used in
7 the calculation of the billing credit.

8
9 **Q. Please explain your gross plant adjustment.**

10 A. Based on the recommendation of Mr. Ballard, I removed the plant balance
11 associated with Account No. 353, Station Equipment for the New Bourbon and Seminary
12 138kV substations. This is a reduction of \$2,294,283 from the gross plant balance. As
13 seen on Exhibit No. S-9, page 5 of 6, line 11, after the gross plant adjustment the Line
14 Section Z plant in service is \$2,038,846. The removal of the substations from the revenue
15 requirement for Line Section Z also affects the O&M expenses as follows: complete
16 removal of Account No. 562 (Station Expenses) and 570 (Maintenance of Station
17 Equipment) since they relate only to substation O&M expenses, and adjustments to
18 Account Nos. 560 (Operation Supervision & Engineering), 566 (Miscellaneous
19 Transmission Expenses), and 568 (Maintenance Supervision & Engineering) to remove

1 the influence of substation O&M expenses. As seen on Exhibit No. S-9, page 5 of 6, line
2 28, the Line Section Z O&M expenses are \$24,460.

3

4 **Q. Please explain your accumulated reserve adjustment.**

5 A. I recommend that the revenue requirement for the Line Section Z facilities be
6 based on net plant calculated using the transmission plant “composite” accumulated
7 depreciation reserve so as to treat these facilities in the same manner in which they would
8 have been treated if the revenue requirement were solely the responsibility of Citizens’
9 customers. As seen on Exhibit No. S-9, page 5 of 6, line 11, the Line Section Z
10 accumulated reserve for depreciation is \$678,197.

11

12 **Q. What is your understanding of Citizens’ proposal as it pertains to the**
13 **accumulated reserve for depreciation?**

14 A. Citizens’ proposed revenue requirement credit is based, in part, on the use of what
15 I refer to as a “component” accumulated depreciation reserve, i.e., a depreciation reserve
16 based only on the accruals for the specific piece of transmission investment over the
17 length of time it has been in service. Exhibit No. CEC-13 reflects an accumulated reserve
18 for Line Section Z that includes only the depreciation accruals for the four years the line
19 has been in service.

20

1 **Q. What is the difference between *component* and *composite* accumulated**
2 **depreciation accrual?**

3 A. Component accumulated depreciation refers to the sum of accruals for a particular
4 piece of plant in service at a point in time. Composite accumulated depreciation refers to
5 the average accumulated depreciation for all elements and all vintages of plant at a point
6 in time. Depreciation rates are designed to recover the entirety of the investment over an
7 assumed average life span rather than to recover the investment in individual units over
8 their specific life spans. Depreciation rates are frequently more narrowly focused on
9 functional classes of property (transmission plant) or types of property by account
10 (generators). In general, plant in service is considered to have the composite average
11 accumulated reserve for depreciation whether it is one day old or many years old – until
12 the day it is retired from service, at which time it is considered to be fully depreciated.
13 This convention allows a more simplified accounting for rate making purposes so that
14 each line segment or unit of property does not end up with a unique rate due to underlying
15 cost elements.

16

17 **Q. What is the impact of using the two different approaches?**

18 A. Although there is an intuitive appeal to Mr. Reising's approach of incorporating
19 only the actual accrued depreciation for the specific facilities in question, its
20 implementation can lead to unfairly higher or lower costs imposed on one subset of

1 customers within a larger rate class whose rates are predicated on the use of a composite
2 treatment of depreciation. In this case there is a pronounced difference between the
3 approaches. Citizens' *composite* net plant ratio for transmission plant is 70%, whereas
4 the *component* net plant ratio for the Line Section Z facilities is 92%. If these facilities
5 were to be rolled-in to Citizen's revenue requirements, they would be treated as having a
6 composite 70% net plant. But under Citizens' proposal using the component method they
7 would be treated as having 92% net plant. As a consequence, under Citizens' proposal
8 the revenue requirement for Line Section Z facilities (paid for by Ameren customers) will
9 carry a larger return component than it would if only Citizens' customers were
10 responsible for the costs. Under the composite accumulated reserve method, the gross
11 revenue requirement for Line Section Z is \$184,688, whereas under the component
12 method, the gross revenue requirement is \$225,363 – a 22% greater revenue requirement
13 charged to Ameren's customers than would be the case from Citizens' customers. As
14 noted in my colleague James Ballard's testimony, comparability among classes of
15 facilities and customers is an important element of ratemaking. If one set of customers is
16 to be charged rates designed using the component depreciation reserve for the specific
17 facilities used in providing service to them, then all customers should be charged rates
18 designed using the component depreciation reserve for the specific facilities used in
19 providing service to them. Unfortunately, such a policy would lead to a plethora of rates

1 and a tangle of accounting records that would, I believe, far exceed the benefits of using
2 the component depreciation method. Therefore, I recommend the composite method.

3

4 **Q. What is the change in estimated revenue requirement for Line Section Z**
5 **based on your workpapers?**

6 A. Mr. Reising's Exhibit No. CEC-12, page 1, line 1, indicates a gross revenue
7 requirement for Line Section Z of \$530,557. My Exhibit No S-9, page 1, line 1, indicates
8 a gross revenue requirement for Line Section Z of \$184,688 annually or \$15,390 monthly.

9

10

11 **Q. Does this complete your prepared direct testimony?**

12 A. Yes, it does.

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AFFIDAVIT OF Patrick R. Crowley

I, Patrick R. Crowley, do hereby declare that under penalty of perjury that I am the author of the foregoing affidavit, that the facts set forth herein are true and correct to the best of my knowledge.

June 19,
2003