

Exhibit Number:
Issue(s): Quality of Service
Witness: Myron E. Couch
Sponsoring Party: MoPSC Staff
Case Number: TR-98-373

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SENECA AND GOODMAN TELEPHONE COMPANIES

TR-98-373

DIRECT TESTIMONY

OF

MYRON E. COUCH

Jefferson City, Missouri
August, 1998

FILED

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Missouri Public
Service Commission

1 SENECA AND GOODMAN TELEPHONE COMPANIES

2 CASE NO. TR 98-373

3 DIRECT TESTIMONY

4 OF

5 MYRON E. COUCH

6
7 Q. Please state your name and give your business address?

8 A. My name is Myron E. Couch, and my business address is 301 West
9 High Street, Jefferson City, Missouri, 65102.

10
11 Q. By whom are you employed?

12 A. I am employed by the Missouri Public Service Commission
13 (Commission).

14
15 Q. In what capacity?

16 A. I am a Field Services Specialist in the Telecommunications
17 Department.

18
19 Q. How long have you been employed by the Commission?

20 A. Since August 1, 1986.

21
22 Q. Have you previously testified before this Commission?

23 A. Yes, I have.

24
25 Q. Will you please state for the record your qualifications, your
26 educational background and experience?

27 A. I received a Bachelor of Arts degree from Missouri Baptist
28

1 College in St. Louis, Missouri and a Master of Divinity degree from
2 Southern Baptist Theological Seminary in Louisville, Kentucky.

3 I served four years in the United States Air Force as a
4 Communications Specialist between 1957 and 1961. I was employed by
5 Southwestern Bell Telephone Company from 1962 until 1974, in various craft
6 positions as a Frameman, Station Installer, Teletype/Data Machine
7 Repairman and Crossbar Number One Switchman. From 1978 until 1983, I was
8 employed by Continental Telephone Company. I was initially employed as a
9 Combination Station Installer and Repairman. After a year in that
10 position I was promoted to Materials and Supplies Supervisor in charge of
11 the drop plow contractors, company vehicles and the operation of
12 Continental Telephone Company's warehouses in Wentzville and Warrenton,
13 Missouri.

14 I accepted employment at the Commission August 1, 1986 and since
15 that time I have been involved in routine service audits of telephone
16 central offices throughout the State of Missouri. Since I have been with
17 the Commission I have completed a Maintenance Course for the Stromberg
18 Carlson XY central office and courses dealing with Northern Telecom's DMS
19 10 System Translations and Methods of Operation/Traffic Provisions. In
20 the area of telephone outside plant maintenance, I have completed one
21 course titled "Managing Exchange Cable Plant" and another titled "Power
22 Influence Mitigation".

23
24 Q. Please describe your duties at the Commission.

25 A. I perform a number of duties that are related to monitoring the
26 quality of service that telecommunications companies provide in Missouri.
27 I perform quality of service audits of telephone company central offices
28

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1 in which I test the switching equipment and the exchange cable. I perform
2 grounding audits on telephone company outside plant. I analyze the
3 Quarterly Quality of Service Reports, submitted by all of the local
4 exchange telephone companies (LECs). I investigate quality of service
5 complaints made by telephone company customers. Many of those complaints
6 require that I make a field visit to understand the problem. I perform
7 quality of service audits on pay telephones throughout the state.

8
9 Q. Mr. Couch, what is the purpose of your testimony?

10 A. The purpose of my testimony will be to explain why Seneca and
11 Goodman Telephone Companies (Seneca/Goodman or Companies) need to invest
12 \$262,028 (\$201,166 to be invested by Seneca and \$60,862 to be invested by
13 Goodman) to eliminate their existing analog subscriber carrier and replace
14 it with digital subscriber carrier. In addition, I will explain why
15 Seneca should be allowed \$40,233 and Goodman \$12,172 of that cost toward
16 their overearnings.

17
18 Q. Mr. Couch, would you describe what is meant by analog subscriber
19 carrier?

20 A. Yes. Analog subscriber carrier is an early form of "pair gain".
21 Pair gain is a term that describes the concept of increasing the number of
22 usable telephone circuits gained by electronic means. In the past, when
23 telephone companies like Seneca/Goodman needed more subscriber lines to
24 serve additional subscribers, to provide additional lines to existing
25 subscribers, or to offer private lines to existing subscribers they would
26 employ analog subscriber carrier. This form of pair gain would
27 electronically superimpose a number of frequencies on a single cable pair.

1 In most cases eight separate frequencies were used to provide eight
2 separate and distinct telephone circuits. By superimposing these
3 frequencies the existing cable pair that was providing telephone service
4 for one subscriber is capable of providing service for as many as eight
5 subscribers.

6
7 Q. You indicated that this was an early form of pair gain device.
8 Is there anything wrong with this kind of device?

9 A. When this kind of pair gain was used originally, it was the
10 best and least expensive solution for multiplying the number of existing
11 telephone circuits. However, since that time, modern technology has made
12 its use troublesome and inefficient. Often, for instance, subscribers are
13 unable to make use of an answering machine if their service is provided
14 over analog carrier. Customers using their telephone line to access the
15 Internet or to send data will find that analog carrier limits their data
16 speed. Even customers who simply have several telephones connected to
17 their line will find that analog carrier may not provide enough ringing
18 current to ring the telephone ringers.

19
20 Q. If Goodman/Seneca replaces the analog subscriber carrier, what
21 would they use to replace it?

22 A. They would replace it with digital subscriber carrier.

23
24 Q. Mr. Couch, what is digital subscriber carrier and would it be
25 an improvement for Goodman/Seneca's subscribers?

26 A. Digital subscriber carrier is a modern form of pair gain.
27 Unlike analog subscriber carrier, digital subscriber carrier will allow
28

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1 the use of answering machines, does not substantially slow the speed of
2 data transmission and does not restrict the number of telephone sets that
3 can be attached to the line.

4
5 Q. Is digital subscriber carrier commonly used by telephone
6 companies today?

7 A. Yes. Most telephone companies have engineered their outside
8 plant using this technology. Goodman/Seneca will be using digital
9 subscriber carrier according to the carrier serving area (CSA) concept.
10 This arrangement provides the most efficient use of the technology.
11 Essentially, it extends the telephone company central office into the
12 field and thereby shortens the length of customer loops to eighteen
13 thousand (18,000) feet or less which means that customers can be served
14 over nonloaded loops. These short nonloaded loops are necessary to
15 provide advanced telephone services like ISDN to subscribers.

16
17 Q. What are the costs for this modernization of Goodman/Seneca's
18 telephone service?

19 A. It will cost Goodman \$60,862 and Seneca \$201,166.

20
21 Q. Is the entire cost of this modernization being considered in the
22 stipulation?

23 A. No. Only \$40,233 in the case of Seneca and \$12,166 in the case
24 of Goodman.

25
26 Q. Is the cost of this redesign of outside plant facilities
27 justified by the improvements to the subscriber's service?
28

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1 A. Yes. As is true in any other industry, modernization of service
2 offered to subscribers is a necessary part of serving those subscribers.
3 Telephone subscribers, both urban and rural, all over Missouri want and
4 deserve modern telecommunications service. Therefore, it is my opinion
5 that these kind of costs are justified.

6
7 Q. Is it your opinion that these costs will yield an equivalent
8 benefit for the customers of these companies?

9 A. Yes.

10
11 Q. Mr. Couch, would you recommend that the Commission consider the
12 costs of Goodman/Seneca's modernization in their deliberation concerning
13 any possible overearnings?

14 A. Yes. I would.

15
16 Q. Does this conclude your testimony in this case?

17 A. Yes. It does.
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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

SENECA AND GOODMAN TELEPHONE COMPANIES

Case No. TR-98-373

AFFIDAVIT OF MYRON E. COUCH

STATE OF MISSOURI)
) SS.
COUNTY OF COLE)

Myron E. Couch 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 6 pages to be presented in the above-referenced 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.

Myron E. Couch
MYRON E. COUCH

Subscribed and sworn to before me this 10 day of August, 1998.

Christine E. Brauner
Notary Public

My Commission Expires: CHRISTINE E BRAUNER
NOTARY PUBLIC STATE OF MISSOURI
COLE COUNTY
MY COMMISSION EXP JULY 22, 2001