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BEFORE THE ARIZONA CORPORATION COMMISSION

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RENZ D. JENNINGS,
CHAIRMAN

Arizona Corporation Commission

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COMMISSIONER

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1996 CONSOLIDATED COST
ARBITRATION)

Docket Nos. U-3175-96-479 ✓
E-1051-96-479

IN THE MATTER OF THE PETITION OF)
MCIMETRO ACCESS TRANSMISSION)
SERVICES, INC. FOR ARBITRATION)
WITH US WEST COMMUNICATIONS, INC.)
OF INTERCONNECTION RATES, TERMS,)
AND CONDITIONS PURSUANT TO)
47 U.S.C. §252(b) OF THE)
TELECOMMUNICATIONS ACT OF 1996)

CONSOLIDATED WITH:

U-2428-96-417
E-1051-96-417
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U-2432-96-505
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U-3155-96-527
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INITIAL CLOSING BRIEF OF

MCIMETRO ACCESS TRANSMISSION SERVICES, INC.

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1 MCIMETRO ACCESS TRANSMISSION SERVICES' INITIAL CLOSING BRIEF

2
3 I. INTRODUCTION:

4 MCImetro Access Transmission Services ("MCI") requests that
5 the Arbitrators adopt the Hatfield study and resultant prices
6 for unbundled network elements and interconnection and adopt
7 MCI's avoided cost discount of 22.5%. The Hatfield study and
8 MCI avoided cost analysis are consistent with the
9 Telecommunications Act of 1996 and relevant FCC orders and
10 rules. Adoption of the MCI proposals will encourage
11 competition. Adoption of the USWC pricing proposal will result
12 in burdening new entrants with USWC's cost inefficiencies and
13 will discourage and, at a minimum, defer the emergence of
14 effective competition in Arizona and the benefits the public
15 derives from such competition. The USWC proposed unbundled
16 loop price above, if adopted, would preclude the emergence of
17 competition for some customers and substantially delay the
18 emergence for others. Unlike the Hatfield study, the USWC cost
19 studies are a "black box."

20 The Arbitrators should adopt and apply the following
21 six basic economic principals in determining prices for new
22 entrants.

23 First, the incumbent local exchange company must share
24 with entrants its economies of density, connectivity and scale.
25 It must allow an entrant access to unbundled network elements
26 at prices that reflect these economies and that make it

1 possible for an entrant to provide service with a combination
2 of its own and purchased network elements and then gradually
3 invest in its own facilities. At the same time, US West has an
4 opportunity to fully recover the efficient cost of producing
5 network elements.

6 Second, US West must not discriminate between the
7 entrant and itself or between different entrants based on any
8 criterion other than cost differences. Such discrimination
9 could take the form of either price or non-price
10 discrimination.

11 Third, regulation should not interfere with the pace or
12 the pattern of technological change.

13 Fourth, forward-looking economic costs, not embedded
14 costs, should be the basis for pricing interconnection and
15 unbundled elements.

16 Fifth, rates must recover costs in a manner that
17 reflects the way they were incurred. For example, non-
18 recurring charges should not be imposed to recover recurring
19 costs.

20 Sixth, US West has virtually no incentive to provide
21 voluntarily the various unbundled network elements and
22 interconnection needed by entrants at prices or under the terms
23 and conditions that would make effective competition a reality.
24 Instead, absent regulatory intervention, US West can force
25 entrants to accept prices, terms and conditions that would be
26 insufficient to bring consumers the benefits of the 1996 Act.

1 Regulatory policy must constrain the choices of US West. This
2 principle is also important in evaluating the information that
3 US West provided.

4 USWC is not a victim in these proceedings. USWC has
5 market power and deep pockets. USWC is a thriving, growing
6 corporate enterprise. See ACSI Exhibit 7. In addition, a
7 state universal service fund helps subsidize service to high
8 cost customers. The FCC and Federal Joint Board are working on
9 a federal universal service plan. Mr. Johnson pointed out that
10 USWC's dire predictions of revenue loss in the intraLATA market
11 have not come to pass. Les Johnson ("Johnson"), AT&T Exhibit
12 22, p. 5. In fact, USWC is doing extremely well financially
13 and is predicted to continue to prosper. (See also R. Glenn
14 Hubbard ("Hubbard") AT&T Exhibit 29, pp. 2-5; Stephen Siwek
15 ("Siwek") AT&T Exhibit 5, pp. 3-19). Mr. Thompson's revenue
16 loss calculations were fraught with problems, such as failure
17 to consider other sources of revenue or cost savings resulting
18 from wholesaling. Gerald Thompson ("Thompson"), Transcript of
19 Proceedings ("Tr.") pp. 321-322. In any event, the pre-eminent
20 concern of the Commission should not be to protect USWC's
21 profits.

22 II. PRICING FOR UNBUNDLED ELEMENTS, INTERCONNECTION, AND
23 COLLOCATION

24 A. Overview: The Telecommunications Act Requires The
25 Establishment Of Just And Reasonable Pricing To
26 Facilitate The Development Of Competition.

The Telecommunications Act of 1996 establishes pricing
standards for interconnection and unbundled network element

1 charges. 47 U.S.C. §252(d)(1). The determination of just and
2 reasonable rates pursuant to such standards is delegated to the
3 state public utility commissions and the commissions must
4 establish rates according to the Act's pricing standards. *Id.*
5 These standards require that rates established by state
6 commissions be nondiscriminatory and be based on the cost of
7 providing the interconnection or network element, but without
8 reference to a rate-of-return or other rate-based proceeding.
9 47. U.S.C. §252(d)(1)(A).

10 In this arbitration, the burden of proof with respect
11 to all issues of material fact, including pricing is on USWC.
12 In its prehearing order, the Arbitrators stated that USWC had
13 the burden of proof and for that reason allowed USWC to put on
14 a rejoinder case at the end of the arbitration. Pre-
15 arbitration conference Transcript of Proceedings, November 14,
16 1996, pp. 12-13.

17 The FCC adopted a similar rationale in placing the
18 burden of proof on incumbent carriers to support their claimed
19 costs with evidence FCC Order §§680,695.

20 The FCC's justification for allocating the burden of
21 proof in this manner is a compelling one:

22 We note that incumbent LECs have greater access
23 to the cost information necessary to calculate
24 the incremental cost of the unbundled elements
25 of the network. Given this asymmetric access
26 to cost data, we find that incumbent LECs must
prove to the state commission the nature and
magnitude of any forward-looking cost that it
seeks to recover in the prices of
interconnection and unbundled network elements.
FCC Order §680.

1 Pricing under the Act must be a surrogate for
2 competitive conditions. As a monopolist, USWC has not been
3 forced by the competitive pressures of a free marketplace to
4 make economically efficient decisions concerning, among other
5 things, new technologies and network design. The fundamental
6 premise of the Telecommunications Act is that regulation is a
7 poor substitute for a competitive market. The pro-competitive
8 principles of the Act further require that costs for unbundled
9 network elements, interconnection and collocation of facilities
10 be established on a forward-looking, long-run incremental cost
11 bases. In a competitive market, pricing is based on
12 incremental costs. Additionally, costs must be determined on a
13 forward-looking basis, assuming efficient use of the best
14 available technology. Again, this approach is the one best
15 designed to duplicate prices resulting from a competitive
16 market. Pricing based on embedded (or historical) costs, as
17 opposed to forward-looking costs, will have the effect of
18 saddling new entrants and consumers with inefficiencies built-
19 up over USWC's years as a monopolist.

20 This is the approach taken by the FCC in its
21 interpretation of the pricing provisions of the Act. The FCC
22 has recognized that pricing should, to the extent possible,
23 replicate conditions of a competitive market. FCC Order §679.
24 The FCC's pricing rules require that USWC's pricing of network
25 elements, interconnection, and methods of obtaining access to
26 unbundled elements, including physical and virtual collocation,

1 be based on a forward-looking, economic, cost-based pricing
2 methodology. 47 C.F.R. §51.505. Under those rules, the
3 forward-looking economic cost of an element is the sum of the
4 total element long-run incremental cost (or TELRIC) of the
5 element, and a reasonable allocation of forwarding-looking
6 common costs. 47 C.F.R. §51.505(a).

7 In this case, Arbitrators have been presented with two
8 very divergent approaches to determining prices. MCI and AT&T
9 have advocated the Hatfield Model as the method for determining
10 prices that will enable the transition from monopoly to
11 competition. The Hatfield Model is a transparent, adaptable
12 model, whose assumptions and calculations are open to review
13 and verification. The Hatfield Model uses publicly available
14 data and allows the user to modify many of its inputs to
15 reflect specific conditions. The Hatfield Model is consistent
16 with the procompetitive pricing policies of the Act. The USWC
17 "cost study," in contract, is not a cost study at all, but
18 rather, a collection of cost studies whose inner workings are
19 not subject to review. Moreover, those cost studies rely upon
20 a number of unreasonable assumptions.

21 The evidence in this case has shown that USWC has
22 failed to carry its burden of proof with respect to its claimed
23 costs. The Arbitrators should accept the proposed prices for
24 network elements presented by MCI and AT&T in this proceeding,
25 just as the Iowa Utilities Board saw fit to do on October 18,
26

1 1996 in a similar arbitration proceeding. In its decision, the
2 Iowa Board reasoned:

3 The Board finds the rates proposed by
4 AT&T, which were stated to be also
5 acceptable to MCI (Tr. 314, 333), are
6 the most credible in these
7 proceedings. They are supported by
8 cost studies using a model [i.e., the
9 Hatfield Model] that is publicly
available and can be verified. (Tr.
705-08). Additionally, the Board was
not persuaded by U S West that the
allocations contained in its cost
studies as described by U S West had
reasonable basis.

10 The Iowa Board then concluded: "Based on the record in these
11 arbitrations, the Board accepts the AT&T cost study."² This
12 Commission should, for the same reasons, accept the Hatfield
13 Model and adopt the MCI-proposed prices for unbundled network
14 elements that are based on the Hatfield Model.

15 **B. The Commission Should Adopt The Hatfield Model And**
16 **Reject USWC's Cost Studies.**

17 **1. The Hatfield Model Represents a Reasonable**
18 **Approach to Determining Costs.**

19 MCI has proposed prices for network elements based on a
20 specific TELRIC study referred to as the Hatfield Model. The
21 Hatfield Model was developed by Hatfield Associates, Inc., of

22 ¹ "Preliminary Arbitration Decision," *In re Arbitration of AT&T Communications of the*
23 *Midwest, Inc., and MCI Metro Access Transmission Services, Inc., Petitioning Parties, and U*
24 *S West Communications, Inc., Responding Party*, Docket Nos. ARB-96-1, ARB-96-2, at 4 (Ia.
Util. Bd. Oct. 18, 1996).

25 ² *Id.* It should be pointed out that the Iowa Utilities Board's decision was issued *after*
26 the Eighth Circuit Court of Appeals temporarily stayed the FCC's pricing rules and in
awareness of that stay. It is also worth noting that the Iowa Board took the lead among
state public utility commissions in seeking the temporary stay.

1 Boulder, Colorado, at the request of MCI and AT&T. Siwek, MCI
2 Exhibit 2, p. 3: 8-13. The purpose of the Hatfield Model is,
3 among other things, to estimate the costs of unbundled network
4 elements consistent with the pricing standards established by
5 the Telecommunications Act of 1996. *Id.*

6 The prices proposed by MCI in this proceeding are based
7 on the latest version of the Hatfield Model: Versions 2.2,
8 Release 2. Siwek Tr. p. 779: 17-20. The Hatfield Model has
9 undergone several iterations; e.g., the ultimate source for
10 some of its inputs and methods may be found in an older model
11 referred to as the Benchmark Cost Model (BCM). Siwek, MCI
12 Exhibit 2, p. 4: 5-10. The second full-blown version of the
13 Hatfield Model, referred to as Version 2.2, Release 1, was
14 succeeded by the version that underlies MCI's prices in this
15 proceeding; Version 2.2, Release 2. *Id.*

16 The methodology underlying the Hatfield Model fully
17 implements the TELRIC cost standard established by the FCC's
18 pricing rules. Siwek, MCI Exhibit 2, pp. 5-9. Richard Cabe
19 ("Cabe"), MCI Exhibit 1, pp. 28-31. Specifically, the Hatfield
20 Model satisfies the following criteria for the calculation of
21 forward-looking economic costs:

22 (1) Use of a long-run assumption.
23 The Hatfield Model, in identifying relevant
24 investments and expenses, assumes a period long
25 enough so that all of the costs of the
incumbent local exchange company (ILEC) become
variable or avoidable. Siwek, MCI Exhibit 2,
p. 6.

26 (2) Definition of increment to be
studied is total demand. The Hatfield Model

1 studies an increment equal to the entire
2 quantity of the network element, both as an
3 efficient ILEC would use the network element to
4 provide its own retail services and as it would
5 provide the network element to other carriers
6 on an unbundled bases. Siwek, MCI Exhibit 2,
7 p. 6.

8 (3) Use of a forward-looking
9 methodology. The Hatfield Model uses USWC's
10 existing wire center locations and develops
11 investments using the most efficient, currently
12 available technologies for the provision of
13 loop facilities, switching, interoffice
14 transport, and signaling. Siwek, MCI Exhibit
15 2, pp. 6-7.

16 (4) Inclusion of a reasonable
17 profit. The Hatfield Model includes a forward-
18 looking cost of capital in the costs that it
19 calculates. Siwek, MCI Exhibit 2, p. 7.

20 (5) Exclusion of embedded costs.
21 The Hatfield Model is based entirely on
22 forward-looking costs; embedded costs are not
23 used. Siwek, MCI Exhibit 2, pp. 7-8.

24 (6) Exclusion of universal service
25 subsidies. The Hatfield Model does not include
26 in its calculation any funding for any
universal service mechanisms. Siwek, MCI
Exhibit 2, p. 8.

(7) Use of generic forward-looking
cost models. The FCC found that the Hatfield
Model and similar generic models "appear best
to comport with the preferred economic cost
approach," and that the Hatfield Model and
similar generic models "appear to offer a
method of estimating the cost of network
elements on a forward-looking basis that is
practical to implement and that allows state
commissions the ability to examine the
assumptions and parameters that go into the
cost estimates." FCC Order §§834, 835. Of
these models, only the Hatfield Model is based
on publicly available data and permits scrutiny
by both commissions and interested parties.
Siwek, MCI Exhibit 2, pp. 6, 9.

(8) Application of principle of
cost-causation. The Hatfield Model uses cost-

1 causative principles to identify forward
2 looking costs with specific network elements.
3 Siwek, MCI Exhibit 2, p. 6. It includes in the
4 cost of network elements all costs that the FCC
5 has specifically discussed as being part of the
6 direct cost of network elements. Siwek, MCI
7 Exhibit 2, p. 9.

8 (9) Inclusion of overhead costs.

9 The Hatfield Model estimates the overhead costs
10 of a wholesale-only carrier by adding a 10%
11 markup.³

12 The positive attributes of the Hatfield Model are
13 manifest. The Hatfield Model uses sound economic costing
14 principle to estimate relevant costs. Siwek, MCI Exhibit 2, p.
15 5. The operations of the model can be readily scrutinized by
16 anyone, and a significant number of its inputs can be varies by
17 users of the model. Siwek, MCI Exhibit 2, p. 11-12, Tr., p.
18 832: 3-7. It includes all network elements and associated
19 costs that are necessary to provide the unbundled elements and
20 local exchange service considered by the model.

21 One of the most attractive features of the Hatfield
22 Model is its openness, public accessibility, and user-
23 friendliness. Version 2.2, Release 1 of the model has been
24 available through the International Transcription Service of
25 Washington, D.C., for some time. Siwek, MCI Exhibit 2, p. 11:
26 14-21. Version 2.2, Release 2 is now available from the same

3 The 10% overhead expense factor was derived from three sources: (1) a regression analysis of overhead expense to non-overhead expenses for all ILECs; (2) overhead for AT&T using Form M data; and (3) a review of two competitive industries -- the airline and the automobile industries -- that also involve substantial durable assets. Siwek Tr, pp. 800-803. The factor is designed to include all general and administrative expenses, such as executive management, legal staff, human relations, payroll, and similar expenses. Siwek Tr., pp. 798-799.

1 source. Siwek, MCI Exhibit 2, p. 11: 14-21. A user-friendly
2 interface allows the user easily to vary many of the inputs to
3 the model. Siwek, MCI Exhibit 2, p. 11: 14-21. Inputs to the
4 Hatfield Model are open and visible to the user. Siwek, MCI
5 Exhibit 2, p. 12: 1-3.

6 The logic and methodology of the Hatfield Model is also
7 open, visible, and publicly accessible. The model consists of
8 a set of Excel spreadsheets that can be examined by the user.
9 Siwek, MCI Exhibit 2, p. 12: 2-3. An automated front-end
10 interface allows a user to select the study area to be modeled
11 and to enter any desired user-adjustable input assumptions.
12 Siwek, MCI Exhibit 2, p. 13: 1-9. Siwek Tr., pp. 831-832.

13 The importance of these attributes of the Hatfield
14 Model cannot be overemphasized. In the past, confronted with
15 cost models that are neither as open, publicly available, nor
16 user-friendly as the Hatfield Model, regulators and other
17 parties to regulatory proceedings have been forced to rely on
18 cost studies produced by ILECs as the sole source of cost data.
19 Siwek, MCI Exhibit 2, p. 12: 5-19. Attempts to review,
20 analyze, and verify the cost data produced by such models have
21 met with, at best, limited success for two primary reasons.
22 *Id.* First, the lack of publicly available information with
23 respect to ILEC studies has often meant that meaningful review
24 was difficult or impossible. *Id.* Even when available, the
25 inputs and assumptions used by ILEC cost studies have often
26 been subject to proprietary protection. *Id.* Moreover, such

1 cost models have often remained "black boxes" because
2 regulators and other parties to regulatory proceedings were
3 unable to test either the accuracy of the underlying algorithms
4 or the sensitivity of the models to inputs and assumptions.
5 *Id.* Second, not enough independent objective cost data has
6 been available to use as a benchmark to evaluate the ILEC-
7 provided data, which meant that regulators and other interested
8 parties have been unable to ascertain the reasonableness of
9 ILEC cost estimates. *Id.*

10 The Hatfield Model suffers from none of these
11 deficiencies. Review of the Hatfield Model is direct and
12 straightforward. Siwek, MCI Exhibit 2, p. 13: 1-9. The public
13 has access to complete and detailed documentation relating to
14 the model, including descriptions of algorithms, inputs, and
15 assumptions. *Id.* The public availability of the model and the
16 fact that its inputs can be varied by the user enable the user
17 to evaluate the model directly for accuracy and ascertain its
18 sensitivity to changes and various inputs. *Id.* The
19 superiority of the Hatfield Model in these respects is
20 graphically illustrated by the ability it afforded USWC to run
21 the Hatfield Model itself with its own inputs and assumptions
22 and use its own runs. This is an exercise that has been
23 impossible for any ILEC cost studies.

24 USWC has criticized the Hatfield Model for its use of
25 national, publicly available data rather than USWC-specific
26 data. Far from being a defect of the Hatfield Model, however,

1 this attribute is one of its most appealing characteristics.
2 The methodology to be used to determine prices for unbundled
3 network elements should replicate, to the extent possible, the
4 conditions of a competitive market. FCC Order, §§679, 618,
5 672. Rivals should share the economies of scale and scope from
6 the ILEC, and the ILEC must offer potential rivals the use of
7 network elements at costs that reflect the economies of the
8 entire network. FCC Order §§ 11, 679. An appropriate cost
9 model, therefore, must estimate the costs of an entire network
10 that a potential entrant would efficiently reconstruct to
11 provide all basic local telecommunications services at the
12 wholesale level. In other words, it is the costs of a
13 potential, efficient, reconstructed network, not USWC's costs
14 associated with its own network, that should be used to set
15 prices. This is precisely what the Hatfield Model does, and is
16 the reason that it appropriately uses national, publicly
17 available data rather than USWC-specific data.

18 The Hatfield Model utilizes seven primary categories of
19 input data:

20 (1) Census Block Group (CBG) data.
21 This data is derived from recent Census Bureau
22 data for Arizona. Siwek, MCI Exhibit 2, p. 17.
23 The specific CBG data used are: number of
24 households in each CBG; CBG land area; CBG
25 position relative to the nearest wire center;
26 and geological factors, include rock depth,
rock hardness, water table depth, and surface
texture.

1 (2) Business employee data. Data
2 concerning the number of business employees by
3 CBG are used to distribute the ARMIS⁴-reported
4 number of business, special access, and
5 payphone lines by CBG.

6 (3) Cable and installation cost
7 data. Siwek, MCI Exhibit 2, p. 17.

8 (4) Wire center data. Wire center
9 data provide the location of existing wire
10 centers in each LATA, as well as the location
11 of existing tandem switches and signal transfer
12 points.

13 (5) Network traffic data. Network
14 traffic is estimated using dial equipment
15 minutes and call attempt statistics. Siwek,
16 MCI Exhibit 2, p. 18. These inputs are then
17 used to appropriately size investment in
18 switching, signalling, and interoffice
19 facilities, as well as to calculate usage-
20 sensitive costs for several of the unbundled
21 network elements. Siwek, MCI Exhibit 2, p. 18.

22 (6) Expense data. Forward-looking
23 expense data are used, if they exist in the
24 public domain, in order to estimate future
25 recurring expenses associated with operating
26 and maintaining the telephone network. Siwek,
MCI Exhibit 2, p. 19. If no such data are
available, the best publicly available data --
namely, selected expense data reported by the
ILECs in ARMIS -- are used.

(7) ARMIS-reported data on the
number of residential and business lines.
Siwek, MCI Exhibit 2, p. 18.

The Hatfield Model calculates costs using the best
publicly available data that has been identified. Siwek, MCI
Exhibit 2, p. 19. The model has been expressly designed to
allow cost calculations to be based on ILEC-provided data

⁴ "ARMIS" stands for Automated Reporting Management Information System.

1 provided that the ILEC has met the FCC-imposed burden of proof
2 that such data will accurately identify forward-looking costs.

3 Certain Hatfield model inputs -- cost of capital,
4 depreciation rates, and tax rates -- were customized in order
5 to further particularize the study for use in Arizona.
6 Depreciation lives prescribed by this Commission were used as
7 inputs to the Hatfield Model. An overall effective tax rate of
8 40%, which is consistent with the tax rate used by USWC in its
9 cost studies in Arizona, is also utilized as an input to the
10 Hatfield Model.

11 2. USWC's Cost Studies are Fatally Flawed and Must be
12 Rejected as a Basis for Setting Prices in This
13 Proceeding.

14 Virtually all of the parties to this proceeding other
15 than USWC join in urging this Commission to reject USWC's cost
16 studies as a basis for setting prices for interconnection and
17 unbundled network elements. These parties have identified
18 numerous defects in USWC's cost studies that render them
19 unreliable and result in unjustifiably high interconnection and
20 unbundled network element prices. As Dr. Harris admitted,
21 numerous changes were made in those cost studies which
22 increased the prices for new entrants. Dr. Robert Harris
23 ("Harris"), Tr., pp. 429: 19 - 433: 5.

24 One major methodological flaw pervades all of USWC's
25 cost studies and renders them wholly inappropriate as a basis
26 for establishing any rates in this proceeding. During cross-
examination, USWC's cost witness admitted that USWC did not

1 submit just one cost study in this proceeding, but 28 studies.
2 Geraldine Santos-Rach ("Santos-Rach"), Tr., 128: 19-25. These
3 studies were voluminous; they comprise an entire box of paper.
4 William Fitzsimmons ("Fitzsimmons"), Tr., 1702: 4-18. These
5 studies are compiled by teams of USWC employees (analysts) and
6 consultants many of whom were not present and available for
7 examination. Santos-Rach, Tr., pp. 130: 2 - 136: 11.

8 The labor costs in the studies illustrate the
9 difficulty in evaluating these cost studies. Serious questions
10 were raised about those labor costs for such activities as
11 testing and NID placement. Santos-Rach, Tr., pp. 145-150,
12 Marilyn Figueroa ("Figueroa"), Tr., pp. 1605: 2 - 1606: 11.
13 The key point is that neither the parties nor the Arbitrators
14 are able to review USWC's cost studies in sufficient detail to
15 warrant their serious consideration, let alone their adoption,
16 in a proceeding as important as this one. This pervasive
17 methodological flaw runs throughout USWC's cost studies and is
18 reason in itself for rejection of those studies as a reliable
19 basis for setting interconnection and unbundled network element
20 rates here.

21 USWC's presentation of embedded cost studies by Mr.
22 Elder was of no significance because long run incremental costs
23 have already been adopted by this Commission as the appropriate
24 costing methodology. AAC R-14-2-1309. What is most
25 interesting about the USWC embedded cost studies is that they
26 result in a loop cost very close to the USWC TELRIC produced

1 loop cost. USWC's embedded costs are not based on the most
2 efficient network design but on historical network costs. It
3 casts doubt on whether the USWC TELRIC cost studies
4 appropriately used a most efficient network approach when the
5 resulting loop cost is almost identical to the historical
6 embedded cost.

7 In addition to what can only be described as a systemic
8 failure in USWC's cost study method, the USWC cost studies also
9 contain a number of erroneous assumptions concerning critical
10 inputs: specifically, the USWC cost studies:

- 11 - Use of unreasonably low "fill
12 factors";
- 13 - Arbitrarily allocate common
14 costs to network elements;
- 15 - Significantly overstate the
16 number of new facilities that
17 involve difficult placement;
- 18 - Use an unreasonable projection
19 of demand;
- 20 - Assume an unreasonably high cost
21 of capital; and
- 22 - Use projected lives of capital
23 equipment that are too short,
24 resulting in a depreciation rate
25 that is too high.

26 On the other hand, the Hatfield model uses more
reasonable assumptions and inputs as noted below.

a. Fill factors

The Hatfield Model accounts for growth by use of
conservative fill factors (i.e. the measure of excess
capacity). Siwek, MCI Exhibit 2, p. 14. Rather than using

1 engineering fill facts (i.e. the maximum capacity of a
2 specified type of facility), the Hatfield Model uses an
3 effective fill factor that assumes additional capacity. John
4 Donovan ("Donovan"), Tr., p. 866: 11-19. The Model's
5 conservative fill factors take into account the need for
6 capacity to accommodate growth.

7 Several parties criticized USWC's use of unreasonably
8 low "fill factors," which are the ratio of the number of
9 telephone plants in use to the total number of telephone plants
10 available.⁵ USWC's use of unreasonably low fill factors is
11 tantamount to USWC's including in its cost studies spare
12 capacity beyond what is necessary for maintenance and expected
13 growth. This results in a model that under utilizes plant and
14 inflates cost estimates. A key issue affecting fill factors is
15 the 2 pair versus 3 pair issue. Cross examination of USWC
16 witnesses made it clear that 3 pair placement is excessive and
17 amounts to gold-plating the network. Santos-Rach, Tr., pp.
18 272: 22 - 275: 18; Barry Orrell ("Orrell"), Tr., pp. 615: 16 -
19 617: 15; Donovan, Tr., pp. 867: 3 - 868: 19; Eric Artman
20 ("Artman"), Tr., pp. 1245: 24 - 1246: 6. Only a small
21 percentage (7%) of Arizona customers even use 2 lines. Orrell,
22 Tr., pp. 548: 18 - 549: 3. By using 3 pair, USWC lowers the
23 fill factor and increases its cost. Orrell, Tr., p. 616: 2-11.

24
25 ⁵ One specific kind of fill factor, called "engineering fill factor," is more precisely defined
26 as the number of lines served divided by the sum of the number of lines served plus the
number of lines needed for immediate growth plus the number of lines needed for
maintenance administration.

1 USWC has used actual average fill rather than objective
2 fill (otherwise known as design or engineering) or achievable
3 average fill, either of which measure would be more
4 appropriate. Thomas Zepp ("Zepp"), ATT Exhibit 9, p. 25. Use
5 of actual average fill, which is lower than both achievable
6 average fill and objective fill, has the effect of increasing
7 the costs calculated in USWC's cost studies, and thus
8 increasing the prices proposed for interconnection and
9 unbundled network elements. Public utility commissions in both
10 Oregon and Washington have required the use of objective fill,
11 and the FCC's pricing rules require the use of achievable
12 average fill, rather than actual fill as utilized by USWC.
13 Zepp, ATT Exhibit 2, p. 26: 13-16.

14 b. Allocation of common costs

15 USWC arbitrarily allocates common costs to network
16 elements. USWC calculates prices for a network element by,
17 among other things, allocating a portion of common costs to the
18 elements. However, USWC has failed to provide any support for
19 its method of allocating common costs back to network elements.
20 Without such support, the Arbitrators run the risk of including
21 USWC's inefficient cost structure on new entrants thereby
22 stifling competition. In the case of general overhead
23 allocation, the USWC allocation (25%) is significantly too
24 high. Jon Zubkus ("Zubkus"), Tr., pp. 1428: 3 - 1429: 21. The
25 Hatfield allocation of overhead (i.e. 10%) is a more reasonable
26 approach.

1
2 c. Placement: easy vs. difficult placement of
3 facilities and sharing of structure

4 There were numerous problems pointed out by the parties
5 with USWC placement costs. These included the percentage of
6 placement paid for by developers, the percentage of placement
7 requiring boring and the length and costs of the "drop."
8 Probably the best illustration of USWC's failure to meet its
9 burden of support for its cost studies is the easy vs.
10 difficult placement issue. USWC witness Santos-Rach defines
11 "easy" placement as the placement of facilities in new
12 development areas, and "difficult" placement as placement of
13 plant in areas where existing public or private property must
14 be disturbed. Santos-Rach, USWC Exhibit 1, pp. 14: 22 - 15: 2.
15 Dr. Fitzgerald revised that explanation in his testimony.
16 Fitzsimmons, Tr., pp. 1679: 15 - 1680: 19. USWC has assumed
17 for purposes of its study that 82% of its loops will be placed
18 under "difficult" conditions and only 18% under "easy"
19 placement conditions. USWC has not adequately documented the
20 claimed cost differential between "easy" versus "difficult"
21 placement of plant. USWC has failed to offer any
22 engineering/cost studies documenting the cost of replacing loop
23 facilities in existing neighborhoods, and has failed to present
24 testimony or affidavits of engineers validating all of its
25 replacement costs. It is impossible to determine whether the
26 placement costs used by USWC are reasonable based on the
information submitted by USWC in this proceeding.

1 USWC's estimates regarding the proportion of "easy" to
2 "difficult" placements are presumptively unreasonable. The
3 prior cost studies of USWC itself have assumed just the
4 opposite; namely, a historical ratio of 80% (82) "easy"
5 placement to 20% (18) "difficult" placement. Santos-Rach, Tr.,
6 pp. 90: 21 - 91: 6. USWC provides only "anecdotal support" for
7 its recent reversal of position.

8 Finally, USWC's assumption that 100% of the placement
9 costs will be borne by one company is erroneous, because the
10 assumption overlooks the potential for sharing placement costs
11 with other parties, such as electric and gas distribution
12 utilities, cable companies, and municipal public works
13 departments. Zepp, ATT Exhibit 9, pp. 29-31. USWC's recent
14 reversal of its position on the easy/difficult placement ratio
15 has the effect of significantly increasing the costs derived by
16 USWC's cost studies. Zepp, ATT Exhibit 10, p. 12: 17-21.
17 USWC's cost studies assume that USWC will incur difficult
18 placement costs that are substantially higher than USWC had
19 determined were reasonable prior to the passage of the
20 Telecommunications Act of 1996. Zepp, ATT Exhibit 10, p. 7:
21 15-19. USWC's new assumption has the effect of increasing
22 USWC's cost estimates by a significant amount. USWC's profound
23 revision of its earlier assumption made prior to the
24 Telecommunications Act of 1996 is unwarranted and
25 unjustifiable. USWC's "easy" versus "difficult" assumption is
26

1 inconsistent with other assumptions made in USWC's cost
2 studies. Zepp, APT Exhibit 9, p. 32: 1-12.

3 USWC criticizes the Hatfield model for having
4 insufficiently low installation costs in developed areas. To
5 the contrary, in the Hatfield model, installation costs for a
6 large percentage of lines in the high density zones are assumed
7 to be higher than installations in less dense zones. Siwek,
8 APT Exhibit 5, pp. 21-22. The Hatfield model appropriately
9 uses a scorched nod approach to calculating placement. A
10 scorched nod approach calculates the cost of putting the
11 telephone plant in from scratch assuming the same central
12 office locations. This approach results in cost efficiencies
13 not present in the USWC cost studies. *Id.*

14 d. Cost of capital

15 As stated earlier, the Telecommunications Act of 1996
16 establishes pricing standards for the establishment of
17 interconnection and unbundled network element rates. 47 U.S.C.
18 §252(d)(1). These pricing standards explicitly allow such
19 rates to include a reasonable profit. 47 U.S.C. §252(d)(1)(B).

20 The use of an economic cost of capital in cost studies
21 used to establish rates for interconnection and unbundled
22 network element rates allows USWC to earn a reasonable profit.

23 USWC has proposed an 11.4% cost of capital based on a
24 capital structure consisting of 28% debt and 72% equity. Peter
25 Cummings ("Cummings"), *Tr.*, p. 388: 8-14. This calculation
26 uses what USWC recognizes to be a market value capital

1 structure rather than USWC's actual capital structure. In
2 sharp contrast, USWC's Commission approved capital structure
3 consists of 38% debt and 62% equity.

4 In sum, USWC has chosen to use in its cost studies a
5 market value structure consisting of 72% equity rather than the
6 Commission approved target capital structure consisting of 62%
7 equity, which it used in its cost studies prior to spring of
8 this year. USWC's choice is significant, because, all other
9 things being equal, the higher the equity ratio, the higher the
10 costs calculated by the cost studies, and thus the higher the
11 rates determined for interconnection and unbundled network
12 elements. Cummings, Tr., p. 390: 1-7.

13 In sum, USWC's cost studies utilize an unreasonably
14 high cost of capital that improperly inflates USWC's calculated
15 costs, and should be rejected for that reason. The Commission
16 should use the cost of capital adopted in USWC's most recent
17 Arizona rate case: 9.75%. Siwek, APT Exhibit 5, pp. 20-21.
18 The Hatfield model uses this Commission approved cost of
19 capital.

20 e. Depreciation rates

21 Depreciation rates, like the cost of capital, represent
22 an important component of USWC's cost studies underlying its
23 proposed prices for interconnection and unbundled network
24 elements. Like the cost of capital, higher depreciation rates
25 translate into higher costs, which in turn translated into
26

1 higher interconnection and unbundled network element prices.
2 William Easton ("Easton"), Tr., p. 371: 17-20.

3 USWC's cost study estimates in this proceeding are too
4 high because the depreciation rates used by USWC are too high.
5 USWC has substantially decreased economic lives compared to the
6 lives currently approved by the Commission. This shortening of
7 lives drives up the prices charged to new entrants.

8 USWC has an incentive to use higher depreciation rates
9 in its cost studies. Among other things, USWC would prefer to
10 have higher depreciation rates on plant accounts used to
11 provide monopoly services, and a lower depreciation rates on
12 plant accounts used to provide competitive services, which is
13 precisely the opposite of what the true economic lives of those
14 accounts would indicate. Zepp, ATT Exhibit 9, p. 35: 7-13.

15 USWC's proposed depreciation rates are inconsistent
16 with the projected lives for telephone equipment prescribed by
17 this Commission. By law, USWC cannot change depreciation lives
18 without an appropriate proceeding at the Commission which USWC
19 has not pursued. Commission staff has not had the opportunity
20 to study (and retain consultants to evaluate) the USWC proposed
21 depreciation lives. USWC's proposed depreciation lives are
22 inconsistent with the recommended ranges for projected lives of
23 telephone equipment adopted by the FCC. They are inconsistent
24 with the type of equipment and assumed fill factors used in
25 USWC's cost studies, particularly with respect to copper cable
26 investment.

1 USWC prepared no specific depreciation studies for this
2 case. The only "study" submitted for the record in support of
3 USWC's proposed depreciation rates is a 1995 report entitled
4 *Depreciation Lives for Telecommunications Equipment: Review &*
5 *Update* prepared by Technology Futures, Inc. ("TFI").⁶ USWC
6 also referred to a depreciation filing at the Commission in
7 1995. Easton, Tr., pp. 374: 22 - 375: 20. However, that
8 "filing" was never docketed and has not been pursued by USWC or
9 evaluated by the Commission.

10 In conclusion, USWC's cost studies utilize unreasonably
11 high depreciation rates that render the studies unreliable as a
12 basis for establishing interconnection and unbundled network
13 element prices in this proceeding. USWC down plays the
14 continuing value of copper in an attempt to raise prices to new
15 entrants. USWC did not prove that copper is a dying
16 technology. The Commission should continue to use the
17 depreciation lives currently adopted by the Commission. The
18 Hatfield model uses the Commission approved Arizona
19 depreciation rates.

20 C. Geographic Deaveraging

21 While all the parties agreed that in the long term
22 geographic deaveraging is appropriate, MCI and the other new
23 entrants explained that geographic deaveraging of wholesale
24

25 ⁶ It is worth pointing out that this TFI report expressly acknowledges that it was
26 sponsored and supported by a group of companies that can clearly be characterized as
incumbent local exchange companies (or ILECs) rather than competitive local exchange
companies (or CLECs).

1 rates should not have to await geographic deaveraging of retail
2 rates. Hubbard, Tr. pp. 1284-1285. To do so would
3 unnecessarily delay the advent of competition in the local
4 exchange market and the benefits derived by the public in that
5 market.

6 D. Proposed Surcharge To Recover Historical Costs - The
7 Theoretical Depreciation Reserve Deficiency.

8 The Arbitrators should reject USWC's proposed
9 surcharge. The proposed surcharge is a tax to provide a
10 subsidy to USWC. The surcharge is not part of the TELRIC of an
11 unbundled element and cannot be regarded as part of USWC's
12 forward looking common costs. Cabe, MCI Exhibit 4, pp. 1-2.
13 The USWC proposal is not economically efficient nor
14 competitively neutral. *Ibid* at 3-5. This arbitration
15 proceeding is not the appropriate proceeding to address this
16 issue. *Ibid* at p. 2.

17 E. Transport and Termination Pricing

18 The Commission has adopted a bill and keep reciprocal
19 compensation mechanism for transport and termination. A.A.C.
20 R14-2-1304. This rule has been implemented in the various
21 arbitration orders issued to date by the Commission. See
22 A.C.C. Decision 59915 in the AT&T arbitration. In the proposed
23 opinion and order in MCI's recent interconnection, the
24 arbitrators found that MCI's switch in Arizona, when used in
25 conjunction with its other long distance facilities, can cover
26 a geographic area comparable to that covered by the USWC tandem
switch. As a result, MCI can receive compensation for its

1 switch equivalent to that of USWC's tandem switch. While the
2 Commission's reciprocal compensation rule and initial
3 arbitration order resolve the transport and termination issues
4 for now, MCI's position on these issues is described below for
5 purposes of further proceedings.

6 1. Overview: Rates That a New Entrant Pays for
7 Transport and Termination of Traffic Must be
8 Symmetrical to the Rates USWC Pays.

9 The purpose of interconnection is to enable customers served
10 by the MCI network to call USWC customers, and vice versa.
11 When an MCI customer makes a local call to a USWC customer, MCI
12 will hand that call off to USWC at the interconnection point to
13 be delivered to the called party. Similarly, when a USWC
14 customer makes a local call to an MCI customer, USWC will hand
15 the call off to MCI for completion. The Act provides that
16 among the issues that must be determined as part of an
17 interconnection arrangement are the terms and conditions for a
18 carrier's recovery of costs associated with the transport and
19 termination of calls originating on another company's network.
20 47 U.S.C. § 252(d)(2).

21 The FCC has defined "transport" and "termination" in this
22 context. "Transport" is defined as "the transmission and any
23 necessary tandem switching of local telecommunications traffic
24 . . . from the interconnection point between the carriers two
25 carriers to the terminating carrier's end office switch that
26 directly serves the called party, or equivalent facility
provided by a carrier other than an incumbent LEC." 47 C.F.R.

1 § 51.701(c). "Termination" is defined as "the switching of
2 local telecommunications traffic at the terminating carrier's
3 end office switch, or equivalent facility, and the delivery of
4 such traffic to the called party's premises." 47 C.F.R.

5 § 51.701(b). Thus, the interconnection point determines the
6 point at which MCI (when it is terminating local traffic to
7 USWC) must begin paying transport and termination compensation
8 to USWC. Conversely, the interconnection point serves as the
9 point at which USWC must begin payment of "transport and
10 termination" to MCI when it terminates a local call on MCI's
11 local network. Mutual compensation for transport and
12 termination is to be based on a reasonable approximation of the
13 additional costs of terminating calls originating on a
14 competitor's network. 47 U.S.C. § 252(d)(2).

15 2. Determination of Rates for Transport and
16 Termination

17 Separate rates for transport and termination should be
18 established using the same forward looking methodology used to
19 determine costs for unbundled elements. For the reasons stated
20 previously, MCI believes that those rates are most accurately
21 reflected by the Hatfield model. The Act does not provide for
22 the recovery of network or other costs associated with
23 transport and termination, other than those established through
24 an appropriately forward looking cost model.

25 3. Symmetrical Rates

26 In determining what transport and termination rates MCI
should pay to USWC, and what rates USWC should pay to MCI, the

1 defining principle should be symmetry, based upon USWC's
2 appropriately determined TELRIC costs for those functions.
3 USWC has agreed to symmetrical rates for call termination, but
4 argues that it should receive a higher compensation rate for
5 transport. However reciprocal compensation for termination and
6 transport represents the most competitively neutral policy.

7 Under a competitively neutral compensation system, if
8 an entrant's switch serves an area comparable to an incumbent's
9 tandem switch, the rates paid the entrant should be symmetrical
10 with the rates that would be paid to the incumbent for tandem-
11 based interconnection. There are two very good public policy
12 reasons for this approach. The first is that this rule
13 minimizes the impact that an entrant's choice of technology or
14 network architecture (*i.e.* the number of switches and the
15 length of local loops in the network) would have upon
16 compensation paid. Secondly, if USWC is allowed to impose
17 higher charges for interconnection than it pays to MCI, it
18 would create a barrier to entry.

19 As MCI begins to create its own physical local network,
20 it is clear that MCI's local network will have a substantially
21 different architecture than that of USWC. USWC's network,
22 developed over many decades, employs an architecture
23 characterized by a large number of switches, with relatively
24 short subscriber loops. By contrast, MCI's local network
25 employs state-of-the-art equipment and design principles based
26 on the technology available today, particularly optical fiber

1 rings, that do not require the deployment of as many switches.
2 In general, there is a trade-off between the number of switches
3 and the length of local loops. The fewer the switches deployed
4 in any given territory, the longer the loop length necessary to
5 serve customers. In any given service territory, MCI will have
6 deployed fewer switches than USWC.

7 One of the major benefits of opening the local exchange
8 to effective local exchange competition is that consumers can
9 benefit from competition between different technologies and
10 involving different architectures of service. If the
11 compensation arrangements for terminating traffic skew the
12 technology or architecture choice of entrants, however, this
13 benefit from entry will be reduced or eliminated. Asymmetrical
14 rates for transport and termination might actually penalize the
15 company with the more efficient network. This is because the
16 incumbent would be permitted to recover its higher costs for
17 transport and termination while the more efficient new entrant
18 would be limited to recovery only its lower, more efficient
19 costs. In addition, a lack of asymmetry, with the entrant
20 receiving less for transporting and terminating traffic than
21 USWC, keeps an equally efficient entrant out of the market
22 because it cannot receive the same payment as the incumbent.
23 In this respect, asymmetrical compensation creates a condition
24 similar to a price squeeze.

25 The FCC has adopted a similar approach favoring
26 reciprocal compensation. In its Order, the FCC stated, "Given

1 the advantages of symmetrical rates, we direct states to
2 establish presumptive symmetrical rates based on the incumbent
3 LEC's cost for transport and termination of traffic when
4 arbitrating disputes under § 252(d)(2)." FCC Order ¶ 1089; see
5 also ¶ 1085 ("[I]t is reasonable to adopt the incumbent LEC's
6 transport and termination prices as a presumptive proxy for
7 other telecommunications carriers' additional costs of
8 transport and termination."). Consistent with the policy of
9 encouraging technological advance, the FCC has also indicated
10 its approval for symmetrical rates where new technologies, such
11 as fiber ring networks, which perform functions similar to
12 those performed by the incumbent's tandem switch. FCC Order at
13 ¶ 1090.

14 III. RESALE

15 A. Overview: Resale Of Telecommunications Services Is
16 Critical To The Development Of Effective Competition
In The Local Exchange Market.

17 The Act requires incumbent local exchange carriers to
18 offer for resale, at wholesale rates, any telecommunications
19 service that the carrier provides at retail. 47 U.S.C.
20 §251(c)(4)(A). Further, the Act prohibits incumbents from
21 imposing unreasonable or discriminatory conditions or
22 limitations on resale. 47 U.S.C. §251(c)(4)(B). As the FCC has
23 observed, "Resale will be an important entry strategy both in the
24 short term for many new entrants as they build out their own
25 facilities and for small businesses that cannot afford to compete in
26 the local exchange market by purchasing unbundled elements or by

1 building their own networks." FCC Order ¶ 32. For most new
2 entrants, if the journey to competition begins with a single step,
3 that single step is resale. Accordingly, it is critical that
4 wholesale rates and nonprice terms and conditions be established in a
5 way that will not deter carriers from pursuing the resale option.

6 The long distance market provides the paradigm for the
7 development of competition through resale. MCI and other carriers
8 first entered the long distance market in the 1970's as resellers of
9 AT&T's long distance services. Since its initial foray into the long
10 distance market as a reseller, MCI has gone on to develop its own
11 ubiquitous network to provide long distance service on a nationwide
12 basis. As a result of competition, the long distance market has
13 grown and prices have dropped.

14 The resale provisions of the Act enable a new entrant, like MCI,
15 to enter the market as a "middleperson," by purchasing local exchange
16 service from USWC at wholesale and then reselling that service to end
17 users at retail. "Resale" in this context is not significantly
18 different from any other arrangement whereby goods or services are
19 purchased at wholesale and then resold to consumers. MCI's profit is
20 the difference between MCI's cost of providing the service and the
21 price it charges for that service. Anthony DiTirro ("DiTirro"), MCI
22 Exhibit 3 pp. 8: 13 - 9: 22. MCI's costs, in turn, include not only
23 what MCI must pay USWC for the service it purchases, but also the
24 costs that MCI will incur in retailing the service, such as
25 marketing, billing, and customer service expenses. DiTirro, MCI
26 Exhibit 3, p. 5: 8-17. In other words, MCI cannot, as suggested by

1 USWC, simply pass a discount on to consumers. MCI will incur retail
2 costs avoided by USWC. To the extent MCI is more efficient, it can
3 pass a savings on to customers, who will then experience the benefit
4 of competition.

5 Such a resale strategy offers a variety of benefits. First,
6 because of the significant time and expense a carrier must invest in
7 order to develop its own network, full blown facilities-based
8 competition will not happen overnight. Through resale, a new entrant
9 will be able to build up a customer base that will justify the
10 expense of establishing its own network. In this way, resale
11 promotes the expeditious development of competition.

12 Moreover, resale will bring the benefits of competition to all
13 consumers. Again, because of the "sunk costs" that a carrier must
14 incur to place its own network, facilities-based competition is most
15 likely to emerge first in large metropolitan areas, where more
16 consumers can be served by a less geographically expansive network.
17 Indeed, MCI has existing facilities in the Phoenix area. At the same
18 time, resale will also allow the residents of greater Arizona to
19 enjoy the benefits of competition. With competition will come not
20 only benefits of market-based pricing, but also non-price benefits of
21 improved customer service and increased product innovation.

22 B. Determining Wholesale Rates: The MCI Avoided Cost Model

23 1. MCI's Avoided Cost Model is Consistent With the Act
24 and FCC Order

25 The Act requires that USWC offer telecommunications
26 services at "wholesale rates." 47 U.S.C. § 251(c)(4)(A). The Act
further defines "wholesale rates" as follows:

1 For the purposes of section 251(c)(4), a State
2 commission shall determine wholesale rates on
3 the basis of retail rates charged to
4 subscribers for the telecommunications service
5 requested, excluding the portion thereof
6 attributable to any marketing, billing,
7 collection, and other costs that will be
8 avoided by the local exchange carrier.

9 47 U.S.C. § 252(d)(3). MCI's avoided cost study identifies retail
10 costs that an efficient company would avoid in making a sale at the
11 wholesale level. USWC disagrees with MCI's study, however, on the
12 grounds that it is based upon "theoretical," rather than actual,
13 costs: USWC argues that the wholesale rate must be based on costs
14 that USWC will "actually avoid" and not costs that are "avoidable."
15 Yet USWC's interpretation of § 252(d)(3) cannot be squared with the
16 procompetitive policies underlying the Act. USWC's proposal allows
17 it unilateral determination of which costs to shed. USWC clearly has
18 an incentive to burden its competitors with additional costs. For
19 instance, USWC wants to continue to incur and claim costs for
20 retailing its services, even though there is no evidence that these
21 costs have any benefit to the wholesaled service.

22 Again, the existing long distance market well illustrates how
23 the Act is designed to encourage competition. In the long distance
24 market, carriers like MCI and AT&T, who have developed their own
25 facilities, compete to sell long distance service not only to
26 consumers at retail, but also to resellers at wholesale. In that
competitive environment, both MCI and AT&T have a strong market-based
incentive to maximize the costs they avoid as a result of making a
sale at wholesale rather than retail, in order to offer the lowest
possible price to resellers and to win that business. In contrast to

1 the long distance market, however, the present local exchange market
2 is dominated by monopoly conditions, and such market-based incentives
3 are wholly absent.

4 In this proceeding, MCI has provided an avoided cost model that
5 reflects the economic principles upon which the Act is based. MCI's
6 avoided cost model treats direct costs of providing retail services
7 as fully avoidable and indirect costs as partially avoidable in the
8 proportion of direct retail expenses to total expenses.
9 Additionally, MCI's model "credits" USWC for additional costs, such
10 as customer services, that will be incurred as a result of making
11 sales at wholesale, by reducing avoided costs in certain directly
12 avoided categories from 100% to 90%.⁷ DiTirro, MCI Exhibit 3,
13 pp. 19: 19 - 20: 6. It represents a conservative approach because,
14 if anything, it overestimates the modest incremental expense USWC
15 will incur to service the accounts of resellers. DiTirro Ibid. The
16 Iowa Utilities Board recently adopted MCI's wholesale discount of
17 21.68%.⁸ The Board indicated that it "believes the more conservative
18 assumptions incorporated into the MCI avoided cost studies produce a
19 closer measurement of the actual costs U S West can avoid in
20 providing services to resellers." Id. Using this methodology and
21 publicly available USWC cost data for 1995, MCI has derived, and
22 recommends that the Commission adopt, a wholesale discount rate of
23 22.50% to be applied to all USWC retail services in Arizona.
24 DiTirro, MCI Exhibit 3, pp. 22: 17 - 23: 2.

25 ⁷ In this regard, MCI metro's approach is identical to that of the FCC. *FCC Order ¶ 928.*

26 ⁸ IUB Order, App. A, p. 4.

1 Setting an appropriate wholesale rate is critical if resale is
2 to be a viable means of market entry. In a resale environment, MCI
3 will, of course, incur retail costs in addition to the costs it will
4 pay USWC. MCI's margin on resold services will be the difference
5 between the price to the consumer and the wholesale cost, plus MCI's
6 own retail costs. MCI's ability to compete with resale will depend,
7 to large extent, on MCI's ability to manage its own retail costs.
8 However, to the extent that the wholesale discount is too low
9 (resulting in a wholesale price that is too high), such a rate will
10 constitute a barrier to entry, thus stifling competition. In short,
11 setting a wholesale discount rate that is too low will force MCI to
12 subsidize inefficiencies in USWC's retail operation.

13 In interpreting the Act, the FCC has provided significant
14 guidance concerning the determination of an appropriate wholesale
15 rate. Specifically, the FCC has developed a series of presumptions
16 regarding the costs an incumbent local exchange carrier will avoid as
17 a result of providing services at wholesale rather than at retail.
18 See 47 C.F.R. 51.609; FCC Order §§ 917-919. According to the FCC,
19 direct costs of serving customers, such as product management, sales,
20 product advertising, and customer services, are presumed to be
21 avoidable. 47 C.F.R. 51.609(c)(1); FCC Order §917. Costs relating
22 to call completion services and number services are also presumed to
23 be avoidable, as services that the reseller will either provide
24 itself or will contract for separately. *Id.* Indirect or overhead
25 expenses, such as general support expenses, corporate operation
26 expenses, and uncollectibles are presumed partially avoidable,

1 because it is presumed that sales of service at wholesale will reduce
2 overall operating expenses. 47 C.F.R. 51.609(c)(2); FCC Order at
3 §918. Expenses falling into this partially avoided, indirect expense
4 category are presumed to be avoided in the same proportion as the
5 proportion of avoided direct expenses to total expenses. *Id.* Thus,
6 if expenses directly attributable to USWC's retail business make up
7 20% of USWC's total expenses, then indirect expenses, such as general
8 support, corporate operations, and uncollectibles, are presumed to be
9 20% avoidable. Finally, the FCC has provided that a portion of
10 contribution, profits or markup may be characterized as avoided. *FCC*
11 *Order* §913. It is the incumbent's burden to rebut these presumptions
12 by proving that specific costs are not avoidable with respect to
13 services sold at wholesale or that specific costs are not included in
14 the retail price of the resold services. *FCC Order* §917; 47 C.F.R.
15 51.609(d).

16 The FCC's interpretation of the Act is fully consistent with the
17 language of the Act and, while stayed, provides useful guidance in
18 setting the appropriate discount rate. The Act is designed to
19 facilitate economically efficient entry of new competitors into the
20 local exchange market. Thus, the relevant inquiry for determining an
21 appropriate wholesale discount rate is to determine which retail
22 costs are avoidable by an economically efficient competitor selling
23 at wholesale, and not which costs USWC will actually avoid. The
24 FCC's approach thus encourages incumbents to avoid costs that are
25 avoidable, and thereby operate efficiently. With the advent of
26 competition, such increased efficiency will translate into lower

1 prices to consumers. The "actually avoided" standard advocated by
2 USWC is inimical to the goal of economically efficient pricing, as it
3 would subsidize, if not encourage, the incumbent's inefficiencies and
4 create a disincentive to cost avoidance.

5 The FCC has expressed its general approval of MCI's avoided cost
6 methodology. FCC Order §925. Moreover, the single discount rate
7 proposed by MCI, to be applied to all of USWC's retail services,
8 minimizes administrative burdens and properly allocates avoided costs
9 among separate services. See FCC Order at §916. A service by
10 service discount has two additional disadvantages. First, USWC data
11 available to MCI does not allow MCI to calculate a verifiable service
12 by service discount. DiTirro, Tr., p. 1521: 11-16. Second, a
13 service by service discount may discourage competition in the
14 residential market based on USWC's proposal to have a much more
15 minimal discount for residential service. Since resale will be the
16 primary path for new entrants to provide residential service, a
17 minimal discount will create a barrier to entry in that market. A
18 uniform discount eliminates any incentive by either party to
19 manipulate service by service discounts.

20 In contrast, the FCC has specifically rejected USWC's suggested
21 approach to determining wholesale rates. USWC argues that the
22 Commission should determine the wholesale rate based upon costs that
23 USWC will "actually avoid" in providing services at wholesale rather
24 than resale. Its approach is inconsistent with the methodology
25 determined by the FCC to be reasonable. For the reasons described
26 above, USWC's approach is also inconsistent with the pro-competitive

1 mandate of the Act, which is designed to encourage efficient market
2 entry through resale of services.

3 The FCC has addressed, and has disapproved, USWC's proposed
4 distinction between "avoided" costs and "avoidable" costs:

5 There has been considerable debate on the
6 record in this proceeding and before the state
7 commissions on whether section 252(d)(3)
8 embodies an "avoided" cost standard or an
9 "avoidable" cost standard. We find that "the
10 portion [of the retail rate] . . . attributable
11 to costs that will be avoided" includes all of
12 the costs that the LEC incurs in maintaining a
13 retail, as opposed to a wholesale, business.
14 In other words, the avoided costs are those
15 that an incumbent LEC would not longer incur if
16 it were to cease retail operations and instead
17 provide all of its services through resellers.
18 Thus, we reject the arguments of incumbent LECs
19 and others who maintain the LEC must actually
20 experience a reduction in its operating
21 expenses for a cost to be considered "avoided"
22 for purposes of section 252(d)(3). We do not
23 believe that Congress intended to allow
24 incumbent LECs to sustain artificially high
25 wholesale prices by declining to reduce their
26 expenditures to the degree that certain costs
are readily avoidable. We therefore interpret
the 1996 Act as requiring states to make an
objective assessment of what costs are
reasonably avoidable when a LEC sells its
services wholesale. We note that Colorado,
Georgia, Illinois, New York, and Ohio
commissions have all interpreted the 1996 Act
in this manner.

FCC Order §911.

21 The USWC approach also is invalid because it does not use
22 embedded costs in calculating its discount. The Act applies the
23 discount to existing USWC retail rates. Such existing retail rates
24 are based on embedded costs. The same standard should be used in
25 determining the discount.
26

1 The best evidence that USWC's approach to avoided costs is
2 unreasonable is the minimal discount derived from that approach.
3 These discounts range from 1% to approximately 8%. Clearly USWC is
4 trying to impose as many of its cost inefficiencies on new entrants
5 as possible by including those costs and inefficiencies in the
6 wholesale prices. Its failure to eliminate all retailing costs
7 results in MCI subsidizing USWC's retail operations as well as
8 creating an anticompetitive price squeeze.

9 USWC's motives for advocating a pricing structure biased against
10 the resale option are clear. To the extent that USWC can persuade
11 the Commission to adopt wholesale rates that discourage entry in the
12 resale market, USWC will not only be able to discourage competition
13 from resellers, but to hinder the development of facilities-based
14 competition. The Commission should recognize USWC's "policy
15 considerations" for what they are: part of an ongoing effort to
16 forestall competition.

17 2. USWC's Criticisms of the MCI Avoided Cost Model are
18 Either Erroneous or Have Only Minimal Impact on the
19 Discount.

20 USWC, realizing that its avoided cost study is
21 unacceptable as the basis for determination of an appropriate avoided
22 cost discount, has chosen to spend considerable time attacking MCI's
23 study. It is important to note that USWC's approach is to pick and
24 choose to attack those parts of the MCI study which result in a lower
25 avoided cost discount. In nearly every case, the alternative
26 approach proposed by USWC, if consistently applied across the study,

1 would have offsetting impacts which eliminate the negative impact in
2 the discount sought by USWC.

3 a. Taxes

4 The property and other taxes account is a perfect example
5 of USWC's self-serving approach. USWC adds this account to the
6 denominator but fails to address whether any of these costs would be
7 avoided and consequently should be added to the numerator. Part of
8 this account includes gross receipts taxes which should be accounted
9 for as the difference between revenues and expenses. Accordingly,
10 these costs should not be included in MCI's study since MCI did not
11 use revenues in its denominator. DiTirro, Tr., p. 1528: 4-23. The
12 remainder of the account contains property taxes. To the extent that
13 property taxes are considered operating expenses, a portion of these
14 costs should be avoided in relation to the fact that USWC will have a
15 reduced need for staff and the supporting facilities. DiTirro, Tr.,
16 pp. 1561: 8 - 1562: 15. MCI believes that a portion of property
17 taxes equal to the overall avoided cost discount should be avoided.
18 Since these avoided costs would be added to the numerator, the
19 overall impact of the property and other taxes account would be nil.
20 DiTirro, Tr., pp. 1559: 3 - 1560: 10.

21 b. Directory Assistance and Operator Services

22 MCI's study was based on the assumption that MCI would
23 have directory assistance and operator services provided separately.
24 USWC has stated that it believes these costs should be completely
25 eliminated from the calculation even though they readily admit that
26 some of these costs, specifically the costs for the call allowance

1 will be avoided. To achieve the inclusion of directory assistance
2 and operator services as USWC's proposal requires a subaccount
3 analysis which runs counter to MCI's approach. MCI sought to keep
4 the analysis at the account level to maintain verifiability.
5 However, if USWC's approach is used, other expenses such as access,
6 should also be eliminated. Since only a small portion of access
7 costs have been identified as avoidable, extracting all access from
8 the denominator consistent with USWC's proposal for directory
9 assistance and operator services would have a significant offsetting
10 effect. Of course, USWC failed to consider any offsetting impacts of
11 its approach and instead only considered the adjustment which works
12 in its favor. DiTirro, MCI Exhibit 6, pp. 4-5.

13 **c. Total other customer service expense**

14 USWC's approach for customer service expense is based on
15 the presumption that USWC will perform the order entry tasks for
16 resellers. MCI and other resellers, however, have requested
17 automated interfaces which allow MCI to perform all the ordering
18 functions. To accept USWC's approach would reward USWC for refusing
19 to provide the automated interfaces necessary to provide MCI with
20 service equal to the service it provides to itself. Consequently,
21 adopting USWC's approach for this account would reward it for
22 violating the Act. DiTirro, MCI Exhibit 6, p. 6.

23 **d. Product management**

24 USWC included most of the product management costs
25 because, it argues, these costs have benefit to CLECs. However,
26 these costs are incurred relevant to USWC's marketing strategy and

1 have little or no benefit to CLECs such as MCI. Moreover, even if
2 these studies did have some relevance to MCI's business plan, the
3 various studies and analysis have not been offered to MCI for its
4 use. DiTirro, MCI Exhibit 6, p. 5. Consequently, the majority of
5 these expenses should be avoided.

6 e. Indirect costs

7 USWC has argued that the indirect expenses found to be
8 avoided should also be deducted from the numerator. While this
9 adjustment moves in MCI's favor, it is mathematically incorrect.
10 Since these costs are in the numerator, they also must be in the
11 denominator. DiTirro, MCI Exhibit 6, p. 6.

12 f. Method of calculation

13 Intrastate numbers were used by MCI because the majority
14 of interstate costs are attributable to access, a wholesale service,
15 which need not be included in the calculation. USWC also proposes to
16 use revenues in the denominator even though expenses are used in the
17 numerator. This is mathematically incorrect. We are attempting to
18 determine the percentage of retailing activities which USWC will
19 avoid when wholesaling. Expenses were selected as to the most direct
20 method of measuring those activities. Since expenses are used in the
21 numerator to reflect avoided activities, expenses must be used in the
22 denominator to accurately determine the avoided cost percentage. If
23 revenues are used in the denominator then the calculation must
24 include an appropriate amount of avoided return and taxes to be
25 included in the numerator to be mathematically correct. However, any
26 attempt to determine the return and taxes attributable to retailing

1 would be extremely arbitrary. MCI's use of expenses avoids this
2 arbitrary calculation of avoided return and taxes. If USWC is
3 attempting to use revenue without including avoided return and taxes,
4 then its approach is attempting to assure that it earns the same
5 absolute dollars of profit when it wholesales the service as when it
6 retails the service. Since the price is smaller, this dramatically
7 increases the profit margin for the wholesale service. MCI's
8 approach, on the other hand, assures that USWC will earn the same
9 margin whether wholesaling or retailing. This is a conservative
10 result since one could argue that wholesale services should not enjoy
11 the same margin as retailed services since retailing comes with
12 higher risks. DiTirro, MCI Exhibit 6, pp. 6-7.

13 g. CPE

14 USWC admits that the impact of this criticism is minimal
15 with not real impact on the discount percentage. Bradley Yerger
16 ("Yerger"), Tr., p. 521: 3-19.

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1 IV. CONCLUSION:

2 MCI respectfully requests that the Arbitrators adopt the
3 prices resulting from the Hatfield study and the MCI avoided cost
4 model.

5 RESPECTFULLY SUBMITTED this 3rd day of January, 1997.

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