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USWEST

Glenn Brown
Executive Director-
Public Policy

March 20, 1996

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COMMUNICATIONS DIVISION
WASHINGTON, DC

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

RE: CC Docket No. 96-45

Dear Mr. Caton

At the request of the Joint Board Staff, we are distributing to the Joint Board service list a copy of the December 1, 1995 submission of the Benchmark Cost Model cited at footnote 78 of the Notice of Proposed Rulemaking and Order Establishing a Joint Board, CC Docket 96-45 issued March 8, 1996. We are also distributing copies of two additional ex-parte presentations dated January 26, 1996 and February 21, 1996 which discuss proposed modifications to the Benchmark Cost Model. All of this material is presently a part of the record in CC Docket 80-286.

In accordance with Commission Rule 1.1206(a)(1), two copies of the letter are being filed with you for inclusion in the public record. Acknowledgment and date of receipt are requested. A copy of this transmittal letter is provided for this purpose. Please contact me if you have questions.

Sincerely,



Attachments

No. of Copies made
by ASCS

0+1

The Honorable Reed E. Hundt, Chairman
Federal Communications Commission
1919 M Street N.W., Room 814
Washington, D.C. 20554

The Honorable Andrew C. Barrett, Commissioner
Federal Communications Commission
1919 M. Street N.W., Room 826
Washington, D.C 20554

The Honorable James H. Quello, Commissioner
Federal Communications Commission
1919 M. Street N.W., Room 802
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The Honorable Rachele Chong, Commissioner
Federal Communications Commission
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The Honorable Susan Ness, Commissioner
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Mr. Larry Povich
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Washington, DC
December 1, 1995

Mr. William F. Caton
Acting Secretary
1919 M Street, N.W.
Washington, D.C. 20554

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DEC 1 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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RE: CC Docket 80-286

Dear Mr. Caton:

MCI Telecommunications Corporation, The NYNEX Telephone Companies, Sprint Corporation and U S WEST Inc. (Joint Sponsors) hereby submit for the record in this proceeding the results of the Benchmark Cost Model (BCM) for 49 states and the District of Columbia. (BCM results are not being presented for Alaska due to data limitations.) The BCM was developed by the Joint Sponsors in response to the Commission's expressed interest in considering a model which develops "proxy" costs for the provision of basic telephone service at the Census Block Group level.* On September 12, 1995, the Joint Sponsors submitted a detailed description of the BCM and the results of the model for six states. On November 1, 1995, the Joint Sponsors made a second filing which provided model results for 17 additional states. In order that this filing may serve as complete documentation of the BCM study, we are also including the 23 states' results and model documentation which have been submitted previously.

Along with the written material presented with this filing, we are also providing three (3) copies of the model results in electronic format on CD-ROM. Each copy consists of three compact discs which contain the results for the 49 states and the District of Columbia. One copy is for the Commission's permanent record in this proceeding, a second copy is being provided for International Transcription Services (ITS), and a third copy is being provided for the use of the Accounting and Audits Division. Parties wishing to order a copy of this data on CD-ROM should contact Wilbur Thomas at ITS on (202) 857-3819.

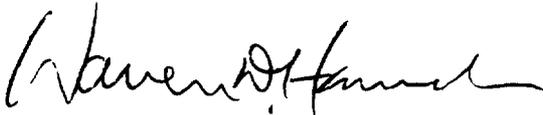
* The Joint Sponsors support the use of the BCM for the analysis of the targeting of explicit high cost support. They do not agree on its use for other purposes such as the setting of rates for telephone service.

In accordance with Commission Rule 1.1206(a)(1) and Public Notice DA 95-211, released February 10, 1995, four copies of the letter are being filed with you for inclusion in the public record. Acknowledgment and date of receipt are requested. A copy of this transmittal letter is provided for this purpose. Please contact Glenn Brown on (202) 429-3133 if you have any questions regarding this filing.

Sincerely,


MCI Telecommunications Corporation


NYNEX Corporation


Sprint Corporation


U S WEST, Inc.

cc: Attached Service List

U S WEST, Inc.
Suite 700
1020 Nineteenth Street, NW
Washington, DC 20036
202 429-3133

USWEST

Glenn Brown
Executive Director-
Public Policy

Ex Parte

January 26, 1996

William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street N.W., Room 222
Washington, D.C. 20554

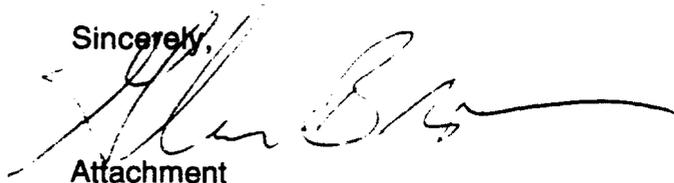
RE: **Docket 80-286**

Dear Mr. Caton:

On January 25, 1996, representatives of the Joint Sponsors of the Benchmark Cost Model* (BCM) met with members of the Accounting and Audits Division staff to discuss comments which have been made on the record in this proceeding regarding the BCM. Representing the Accounting and Audits Division were Deborah DuPont, Bill Howden, Rafi Mohammed, Gary Oddi, Jon Reel and Gary Seigel. Representing the Joint Sponsors were Glenn Brown (U S WEST), Vin Callahan (NYNEX), Peter Copeland (U S WEST), Jim Dunbar (Sprint), Chris Frentrup (MCI) and Jackie McGirr-Conti (NYNEX). The attached handout was used during this discussion.

The original and one copy of this ex parte summary and attachment are being submitted for filing. Due to the fact that this meeting concluded in the late afternoon, this summary is being filed on the next business day after the presentation. Acknowledgment and date of receipt of this letter are requested. A duplicate letter is attached for this purpose. Please do not hesitate to contact me if you have questions.

Sincerely,



Attachment

cc: Deborah Dupont
Bill Howden
Rafi Mohammed
Gary Oddi
Jon Reel
Gary Seigel
Joint Board Commissioners
Joint Board Staff

* The Joint Sponsors of the Benchmark Cost Model are MCI, NYNEX, Sprint and U S WEST.

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BENCHMARK COST MODEL
JOINT SPONSOR RESPONSE TO INPUT FOR
POTENTIAL MODEL MODIFICATIONS

1/25/96

	INPUT	RESPONSE
1	Number of lines per household should be an input variable.	Yes
2	Make water depth at which additional placement costs are incurred an input variable. Also make amount of additional placement cost due to water presence an input variable.	Yes
3	Add one generic multiplier variable that impacts structure cost for future use.	Yes
4	Add additional small cable sizes to cost and sizing table.	Yes
5	Identify CBGs which are primarily business (i.e., low number of households in small geographic area) for special treatment in costing algorithm.	Desirable but difficult
6	Include business lines.	Place holder (Is data available by CBG?)
7	Uniform distribution of customers in sparsely populated rural CBGs may not be a reasonable assumption. Allow for non-uniform distribution of customers in CBG (e.g., utilize road network to define habitable area).	Desirable but difficult
8	Develop more robust switching module (e.g., different switch sizes and architectures).	Desirable but difficult
9	Add investment for network components not included in initial BCM (e.g., pedestal, drop and NID).	Desirable but difficult
10	Vary distribution assumptions by density group.	Desirable but difficult
11	Change source of central office location to Local Exchange Routing Guide (LERG) to assure that all central offices are identified.	Desirable but difficult
12	Allow user selection from menu of copper/fiber break points.	Desirable but difficult
13	Reflect fixed and variable nature of SLC and AFC costs.	Open
14	Assign each CBG to the actual wire center that serves it today.	Open
15	Include riser cable.	Open, only if it impacts high cost areas
16	Include slope variable.	Open
17	Account for different rates of growth on network investments.	Open
18	Include environmental variable.	Open

19	Standard output reports.	Open
20	Model should calculate average cost at the wire center level.	No
21	Model should develop actual embedded cost.	No

LEGEND:

Yes - The proposed change is simple and the Joint Sponsors will make this modification.

Desirable but difficult - The Joint Sponsors agree that this change would enhance the usefulness of the model. If sufficient interest in making this change is expressed we would be willing to attempt this modification.

Open - The Joint Sponsors do not believe this modification would enhance the usefulness of the model, but are open to further discussion.

No - The Joint Sponsors will not make this modification.

U S WEST, Inc.
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202 429-3133

USWEST

Glenn Brown
Executive Director-
Public Policy

Ex Parte

February 21, 1996

William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street N.W., Room 222
Washington, D.C. 20554

RE: **Docket 80-286**

Dear Mr. Caton:

This filing is being made to supplement our January 26, 1996 filing regarding the Benchmark Cost Model (BCM). In that filing we presented a list of the BCM modifications which were under consideration in response to comments and reply comments filed in this proceeding as well as input from the four (4) BCM Workshops. On February 9, 1996 representatives of MCI, Sprint and U S WEST (NYNEX did not participate) met to further consider these potential BCM modifications. The attached document summarizes our intentions and plans regarding further enhancements of the BCM.

In accordance with Commission Rule 1.1206(a)(1), two copies are being filed with you for inclusion in the public record. Acknowledgment and date of receipt of this letter are requested. A duplicate letter is attached for this purpose. Please do not hesitate to contact me if you have questions.

Sincerely,



Attachment

cc: Joint Board Commissioners
Joint Board Staff

**BENCHMARK COST MODEL
JOINT SPONSOR MODIFICATION PLAN
2/9/96**

	ITEM	JOINT SPONSOR PLAN
1	Number of lines per household should be an input variable.	Lines per household will be added as an input variable
2	Make water depth at which additional placement costs are incurred an input variable. Also make amount of additional placement cost due to water an input variable.	Depth at which water becomes an additional cost and the amount of additional cost will be changed to input variables.
3	Add one generic multiplier variable that impacts structure costs for future use.	One generic multiplier variable will be added for future use.
4	Add additional small cable sizes to cost and sizing table.	Additional cable sizes will be added.
5	Identify CBGs which are primarily business (i.e., low number of households in small geographic area) for special treatment in costing algorithm.	A screen will be added to identify situations where the CBG area is less than "x" and households are less than "y". Such cases will be assumed to be primarily business. A default business line count of 400 will be assigned to the CBG for network design purposes. An indicator will be placed by model outputs for these CBGs to indicate that this adjustment has been made. This will assure that these areas do not falsely appear as high cost areas, and will also result in more realistic outside plant design.
6	Include business lines	The model presently includes business lines in the sizing and design of the switch, but does not include them in the sizing and design of the outside plant. A place holder variable will be added for potential future use if a public source for number of business lines by CBG can be identified. The Joint Sponsors specifically reject the use of a different business line multiplier for each density group.
7	Uniform distribution of customers in sparsely populated rural CBGs may not be a reasonable assumption. Allow for non-uniform distribution of customers in CBG (e.g., utilize road network to define habitable area.	For CBGs with less than 20 households per square mile the road network within the CBG will be identified. A buffer will be established around each road as an approximation of the area within the CBG where households have the highest probability of being located. Buffers will be set according to the following parameters: 10-20 Households/Sq. mil. - 500 ft; 5-10 Households/Sq. mi. - 1000 ft; <5 Households/Sq. Mi. - 1500 ft. This buffer area will be used to form a new polygon for purposes of network design.

8	Develop more robust switching module (e.g., different switch sizes and architectures.	A matrix will be developed that will allow for design of both host and remote switches, and will identify fixed and per line costs for various switch sizes. Per line costs will also include traffic sensitive switch costs. An umbilical cost for the connection of the remote switch location with the host switch will be calculated. Different fixed and per line cost factors will be utilized depending on the size of the switch allowing for optimal switch selection.
9	Add investment for network components not included in initial BCM (e.g., pedestal, drop and NID)	Number of network investments were not included in the original BCM, e.g., Drop, Pedestal, Cross-Connects, Engineering, Splicing, Inter-Office Trunking, Riser Cable (but see #15) and Terminal Vaults. An attempt will be made to find a public record source for each of these items. Items which are included in future BCM results will be specifically identified in the output summary.
10	Vary distribution assumptions by density group.	<p>Currently the BCM utilizes the same distribution architecture for each density zone. This architecture has four distribution legs per CBG. This architecture does not always track with normal construction practice in dense urban areas. Also the BCM assumes all distribution plant is copper, which might not be true in areas with long distribution runs. The following modifications will be made to the BCM:</p> <p>RURAL - The same break point between copper and fiber contained in the feeder plant algorithm will be used for distribution plant.</p> <p>URBAN/RURAL - Distribution plant will be designed based upon average lot size, with a distribution run designed down the backyard boundary between lots.</p> <p>DENSE URBAN- Factors will be used to account for some, but not all, of the additional costs which are found in dense urban areas and were not included in the original BCM. Since the purpose of the model is to target high cost areas for the purpose of distribution of high cost support, this should not be a major concern since dense urban areas are not expected to receive high cost support. Care should be exercised in any roll-ups of BCM results, however, since these missing costs are significant and would understate roll-up results.</p>
11	Change source of central office location to Local Exchange Routing Guide (LERG) to assure that all central offices are identified.	This change will be made in the BCM subject to receiving copyright clearance from Bellcore to use the LERG in this manner.
12	Allow user selection from menu of copper/fiber break points.	This change will be made.
13	Reflect fixed and variable nature of SLC and AFC costs.	This will be done subject to being able to obtain public record data to quantify the variables necessary for this determination.

14	Assign each CBG to the actual wire center that serves it today.	This will not be done by the Joint Sponsors. An interested user of the model could make this adjustment to the input data and run the BCM to test the impact in this change of assumptions.
15	Include riser cable.	This will not be included since the primary purpose of the model is to target support to high cost areas. If attempts are to be made to more accurately estimate dense urban costs, riser cable would need to be included, as appropriate.
16	Include slope variable	Slope data will be added to the BCM inputs. The joint sponsors are examining several alternative approaches to incorporating slope in the BCM. The alternatives under consideration for setting the slope variable include: <ol style="list-style-type: none"> 1. Limit consideration of the slope variable to areas of the country where slope will be a meaningful consideration in the determination of network costs. 2. Assign slope variable based upon manual consideration of the topology of each CBG. 3. Utilize minimum and maximum slope indicators from USGS data to develop an algorithm for adjusting the loop distance as the slope variable increases and the route to airline distance increases.
17	Account for different rates of growth on network investments.	A higher rate of growth would indicate a lower network fill factor in an efficiently designed network. Since fill factor is a user-specified input, the BCM already makes accommodation for network growth rates.
18	Include environmental variable.	It is the conclusion of the Joint Sponsors that, given all of the other variables and modifications being made to the BCM, this variable would not be necessary.
19	Standard output reports.	An attempt will be made to develop additional standard output reports that are deemed useful. The joint sponsors are willing to work with interested parties to develop usable reports.
20	Model should calculate average cost at the wire center level.	The BCM functions at the CBG level. An interested user of the BCM could perform an aggregation of all CBGs in a wire center to obtain an approximation of cost at the wire center level.
21	Model should develop actual embedded costs.	The BCM develops current costs based upon efficient network design parameters. To approximate embedded cost at the CBG level, a ratio of total BCM costs to Study Area embedded cost for each company could be developed and applied to CBG results from the BCM to obtain an approximation of CBG embedded cost.