

CONFIDENTIAL

EX PARTE OR LATE FILED

LATHAM & WATKINS

ATTORNEYS AT LAW

1001 PENNSYLVANIA AVE., N.W., SUITE 1300  
WASHINGTON, D.C. 20004-2505  
TELEPHONE (202) 637-2200

FAX (202) 637-2201

TLX 590775

ELN 62793269

PAUL R. WATKINS (1899-1973)  
DANA LATHAM (1898-1974)

CHICAGO OFFICE

SEARS TOWER, SUITE 5800  
CHICAGO, ILLINOIS 60606  
TELEPHONE (312) 876-7700  
FAX (312) 993-9767

LONDON OFFICE

ONE ANGEL COURT  
LONDON EC2R 7HJ ENGLAND  
TELEPHONE + 44-171-374 4444  
FAX + 44-171-374 4460

LOS ANGELES OFFICE

633 WEST FIFTH STREET, SUITE 4000  
LOS ANGELES, CALIFORNIA 90071-2007  
TELEPHONE (213) 485-1234  
FAX (213) 891-8763

MOSCOW OFFICE

113/1 LENINSKY PROSPECT, SUITE C200  
MOSCOW 117198 RUSSIA  
TELEPHONE + 7-503 956-5555  
FAX + 7-503 956-5556

NEW JERSEY OFFICE

ONE NEWARK CENTER  
NEWARK, NEW JERSEY 07101-3174  
TELEPHONE (201) 639-1234  
FAX (201) 639-7298

NEW YORK OFFICE

885 THIRD AVENUE, SUITE 1000  
NEW YORK, NEW YORK 10022-4802  
TELEPHONE (212) 906-1200  
FAX (212) 751-4864

ORANGE COUNTY OFFICE

650 TOWN CENTER DRIVE, SUITE 2000  
COSTA MESA, CALIFORNIA 92626-1925  
TELEPHONE (714) 540-1235  
FAX (714) 755-8290

SAN DIEGO OFFICE

701 "B" STREET, SUITE 2100  
SAN DIEGO, CALIFORNIA 92101-8197  
TELEPHONE (619) 236-1234  
FAX (619) 696-7419

SAN FRANCISCO OFFICE

505 MONTGOMERY STREET, SUITE 1900  
SAN FRANCISCO, CALIFORNIA 94111-2562  
TELEPHONE (415) 391-0600  
FAX (415) 395-8095

April 3, 1997

RECEIVED

APR 3 1997

Federal Communications Commission  
Office of Secretary

BY HAND DELIVERY

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

Re: CC Docket No. 96-262 Ex Parte Presentation

Dear Mr. Caton:

This letter is to advise you that Michael S. Wroblewski of Latham & Watkins, David Zesiger of The Independent Telephone and Telecommunication Association ("ITTA"), Peggy Rettle of CitizensTelecom, Jeff Pursley of Aliant Communications met with Douglas L. Slotten, Aaron Goldschmidt, and Jeffrey Lanning, and Helen McLean of the Common Carrier Bureau to discuss matters involved in the above-captioned proceeding. The attached handout also was discussed. Pursuant to Section 1.206(a)(2) of the Commission's Rules, two copies of this letter have been filed with the Secretary. Please contact the undersigned if there are any questions regarding this matter.

Respectfully submitted,

Michael S. Wroblewski

Attachments

cc: David Zesiger (without attachments)  
Peggy Rettle (without attachments)  
Jeff Pursley (without attachments)

Douglas L. Slotten  
Helen McLean  
Aaron Goldschmidt  
Jeffrey Lanning

No. of Copies rec'd 024  
List ABCDE

## ALIAN T/SNET/CITIZENS ACCESS REFORM VIEWS

### Overall Themes

The companies urge the Commission to recognize that Congress rejected the one-size-fits-all approach to regulation with its adoption of the 2% provisions in the 1996 Telecommunications Act. Most recently, this intent was underscored by the letter sent by Senator Byron Dorgan, *et. al.* on March 3, 1997 (see exhibit 1).

The FCC should adopt the distinctions contained in the 1996 Telecommunications Act in all subsequent proceedings, including the Commission's Access Reform proceeding. Currently the Commission uses a series of different thresholds to distinguish among companies. Some of these thresholds don't adequately distinguish between companies. The Commission itself has acknowledged in at least one order that the Tier 1 distinction was made as simply a matter of administrative convenience (see exhibit 2).

### Distinguishing Voluntary vs. Mandatory Price Cap Companies

In past price cap proceedings, the Commission effectively treated 2% companies differently by distinguishing between voluntary and mandatory price cap companies. 2% companies were allowed to elect voluntarily price cap regulation whereas price cap regulation was mandatory for the larger companies. However, the current access reform proceeding fails to make this distinction. It singles out price cap companies as a group yet price cap companies differ greatly. Mid-size companies differ significantly from the eight largest companies in the size and scope of their operations. Also the smallest RBOC is several times larger than any of the other non-RBOC/GTOC local exchange carriers (see exhibit 3).

2% LECs will most likely be competing against companies like AT&T or MCI/BT that are significantly larger with a more dominant market position. The legislative history of the 1996 Act clearly indicated that 2% companies were to be treated differently from larger companies. The Senate intended the FCC to ensure 2% companies are on an equal footing when faced with competition from a company "that is a large global or nationwide entity that has financial or technological resources that are significantly greater than the resources of the company or carrier." This is clearly the kind of competition 2% companies are facing (see exhibit 4).

2% price cap companies are uniquely impacted by the Commissions proposals that were advanced in the Access Reform Notice of Proposed rulemaking. For example, Aliant's capital budget averages \$20-\$30 million per year. Forward looking models produce estimates of \$35 million in access reductions for Aliant.

## Actions the Companies Recommend in the Access Reform Proceeding

Transition Period – 2% LECs need a 4 year transition period for any prescriptive access charge reductions. The same forward looking models that estimate \$35 million in access reductions for Aliant, produce \$60/month average local phone rates. LECs need time to rebalance rates with state legislators and commissions, and develop state universal funding. Absent a transition period, the ability of 2% LECs to invest in their networks will be virtually eliminated.

The Commission has recognized that the current forward looking models may not accurately reflect the costs for most companies. This is particularly true for 2% companies. Chairman Hundt openly acknowledged this in his testimony before the Senate on March 12<sup>th</sup>. The Commission also acknowledged this in its staff analysis of proxy models, dated January 9, 1997, stating that the models all attempted to estimate the costs of low-density areas but that the different models' sponsors all needed to "provide us with independent evidence that their approach leads to an accurate estimate of the forward-looking cost of providing telecommunications service in rural areas" (see exhibit 5).

Pricing Flexibility – Revise the pricing flexibility triggers proposed in the NPRM. Phase I pricing flexibility would be triggered immediately and would consist of:

- Adoption of USTA's one-basket proposal
- Allowing the de-averaging of switched access rates
- Allowing term and volume discounts
- Allowing contract tariffs and responses to RFPs
- De-regulation of new services

Phase II pricing flexibility would be triggered by a state approved interconnection agreement fulfilling 251(b) and 251(c) requirements as might be modified by states under 251(f)(2) authority. The pricing flexibility that 2% LECs would qualify for once having fulfilled the Phase II trigger would be:

- Removal of services in the area or areas covered by the agreement from price caps.
- Elimination of Part 69 rate structure requirements.
- Tariff filings on one day's notice without cost support.
- Tariff filings are presumed lawful.

These services would continue to be subject to the Commission's Title II oversight.

X-Factor – Adopt an X-Factor appropriate to the unique circumstances of 2% companies.

Rate of Return – Maintain LECs' existing rate of return. 2% companies elected price cap regulation under the assumption that any increased earnings achieved in the face of X-Factor price reductions would be retained. According to media accounts, Wall Street has already begun to factor into the companies' stock prices the increased risk and volatility of this situation which makes attracting the necessary capital all the more difficult.

Per Line Recovery – Allow per-line recovery of all non-traffic sensitive costs to send the appropriate signals to the marketplace and prevent un-economic "cream-skimming" by competitors.

The TIC – Allow the "TIC" to be shifted to existing and new rate elements and recover the residual on a per line basis.

**EXHIBIT 1**

# United States Senate

WASHINGTON, DC 20510

March 3, 1997

The Honorable Reed Hundt  
Chairman  
Federal Communications Commission  
1919 M Street, NW  
Room 814  
Washington, DC 20554

RE: Report No. 96-100, Joint Board Universal Service Recommendations, CC  
Docket No. 96-45

Dear Chairman Hundt:

We are writing to underscore one of the very clear goals set forth in the Telecommunications Act of 1996 -- to ensure that all Americans have access to affordable telecommunications services regardless of where they live. As the Commission considers the recommendations of the Federal-State Joint Board to implement Section 254 of the Communications Act which establishes universal service support mechanisms, we urge you and the other members of the Commission to remain mindful of the Act's call for a universal service system that encourages competition and ensures affordable rates. To meet these goals, the Commission should craft the new universal service system to reflect and improve the accomplishments we already enjoy.

When developing the Telecommunications Act of 1996, the Congress went to great lengths to structure the legislation to ensure that consumers would not experience significant rate increases. It is absolutely imperative that the Commission take the appropriate steps to ensure an end result that allows consumers to enjoy universal service and to benefit from competition where competitive markets emerge. In providing for competition, especially in rural areas, it is clear in the Act that Congress rejected a "one-size-fits-all" approach. Thus, it is important that the Commission structure universal service support mechanisms appropriately to reflect the unique circumstances of rural, high-cost areas.

According to the filing submitted by the U.S. Department of Justice [CC Docket No. 96-98] before the Commission, the economic cost-based model proposed by the Commission in the interconnection proceeding could result in rate increases for about 30% of the general population. The Justice Department predicts that in "sparsely populated areas," aggregate consumer costs for basic local phone service will increase \$6.9 billion annually. The prospect of this kind of result greatly concerns us. In fact, the Act's universal service provisions were carefully designed to prevent this result.

Consumers in rural, high-cost areas ought not be adversely affected by the Commission's local competition rules and universal service changes presently under consideration. It is absolutely imperative that the Commission provide for "specific, predictable and sufficient" universal service support mechanisms in such a way as to avoid dramatic increases in rates paid by rural consumers.

We understand and affirm the underlying premise of the Telecommunications Act, namely, that consumers will benefit from lower prices and receive more opportunities to access advanced telecommunications services primarily through competition. However, the Act specifically recognizes the unique circumstances of different markets, such as rural, high-cost areas. Universal service support is necessary to deliver affordable services that are comparable to services available in competitive markets.

There are several principles with respect to Congressional intent of the Telecommunications Act of 1996 which must not be ignored:

- (1) Congress did not vote for the Telecommunications Act to increase phone rates and degrade service;
- (2) The Act was intended to encourage and facilitate local exchange competition and infrastructure investment; not discourage it; and
- (3) The Congress rejected a one-size-fits-all approach for all market circumstances and the new law was designed to ensure that the introduction of competition and the maintenance of universal service would be appropriate to unique market conditions. Evidence of this is Section 251(f) where Congress provides for exemptions for rural telephone companies and waivers for local exchange providers with less than 2% of the Nation's subscriber lines. The law also provides that the Commission ought to establish different "specific, predictable, and sufficient" mechanisms as appropriate to ensure universal service support where needed.

The end result of the universal service proceeding -- as well as all other proceedings by the Commission to implement the Act -- must be consistent with these principles.

To this end, the Commission was given the responsibility to reform universal service support mechanisms so that the support is adequate to provide affordable rates and that such support is targeted to the unique needs of rural and high cost areas. Below are four specific areas we wish to draw to your attention.

(1) **Universal Service should not be capped under a single fund.** Section 254(b) of the Act specifically states that universal service must ensure that services are available at "just,

**EXHIBIT 2**

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Policy and Rules Concerning Rates ) CC Docket No. 87-313  
for Dominant Carriers )

SECOND REPORT AND ORDER

Adopted: September 19, 1990 ; Released: October 4, 1990

By the Commission: Commissioner Duggan concurring in part and dissenting in part and issuing a separate statement.

Table of Contents

Paragraphs

I.	Introduction and Background	
	A. Statement of Purpose .....	1-4.
	B. Summary of the Plan .....	5-20
	C. Rationale for Adoption of Incentive Regulation .....	21-37
	D. Regulatory Alternatives .....	38-44
	E. Summary of the Order .....	45-46
II.	The Price Cap Plan	
	A. The Price Cap Index .....	47-49
	1. Measure of Inflation .....	50-54
	2. Measuring LEC Productivity .....	55-102
	3. Mid-size and Small Company Productivity .....	103-119
	4. Sharing and Adjustment Mechanism .....	120-165
	5. Exogenous Costs .....	166-190
	B. Application of PCI to LEC Services	
	1. Service Exclusions .....	191-197
	2. Baskets and Bands .....	198-226
	3. Comparing Actual Prices to the PCI .....	227-229
	4. Use of Existing Rates .....	230-256

smaller Tier 1 LECs. For example, several of the mid-size companies, such as CBT and SNET, provide service to a concentrated geographic area, while others, such as Centel, operate on a more broad-based geographic area.

264. Third, the designation of a company as a Tier 1 carrier was initially made as a matter of administrative convenience at the time interstate access tariffs were first implemented.<sup>331</sup> At that time, we decided to require Tier 1 carriers to file more extensive, standardized information in order to simplify the tariff review process. Although the Commission has utilized the Tier 1 designation in other areas to establish different disclosure requirements, status as a Tier 1 carrier should not be determinative of participation in price cap regulation.

265. While we are concerned that, in theory, LECs for whom price cap regulation is optional might avoid price cap efficiency incentives and elect the regulatory scheme that favors them, not their ratepayers,<sup>332</sup> as noted above, the available LEC productivity data suggests that small and mid-size LECs may not be more productive than the RBOCs and GTOC and thus could not "game" the price caps system by electing price cap regulation in order to take advantage of lower productivity factors. In light of this fact, we believe that the diversity of LECs and the incompletely developed record on productivity caution against a broader mandatory application of the price cap system. We can always expand the program at a later date, as other companies prove equally or better able to meet the standards we set today for the largest LEC holding companies and their cost affiliates or as we develop a better record regarding the productivity of smaller and mid-size LECs.

## 2. Price cap participation and pooling

266. The relationship between pooling and price cap regulation is fundamental to the rules defining LEC eligibility for price cap regulation. We have repeatedly emphasized in this proceeding that price cap regulation will increase carriers' incentives to achieve heightened efficiency, which in turn will lead to lower rates. Participation in pools, by its nature, entails

---

331 See Commission Requirements for Cost Support Material To Be Filed with Access Tariff on March 1, 1985, Public Notice, Mimeo No. 2133, released Jan. 25, 1985. Tier 1 companies are defined as those companies having annual revenues from regulated telecommunications operations of \$100 million or more. Commission Requirements for Cost Support Material To Be Filed with 1990 Annual Access Tariffs, 5 FCC Rcd at 1364 (para. 4) (1990).

332 See Executive Agencies Comments at 2; Illinois Reply at 16; Ad Hoc Reply and ICA Reply, ETI Report at 9-11; Indiana UCC Reply at 7; CBT Comments at 4; NERA Study at 13.

**EXHIBIT 3**

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Policy and Rules Concerning Rates ) CC Docket No. 87-313  
for Dominant Carriers )

SECOND REPORT AND ORDER

Adopted: September 19, 1990 ; Released: October 4, 1990

By the Commission: Commissioner Duggan concurring in part and dissenting in part and issuing a separate statement.

Table of Contents

	<u>Paragraphs</u>
I. Introduction and Background	
A. Statement of Purpose .....	1-4.
B. Summary of the Plan .....	5-20
C. Rationale for Adoption of Incentive Regulation .....	21-37
D. Regulatory Alternatives .....	38-44
E. Summary of the Order .....	45-46
II. The Price Cap Plan	
A. The Price Cap Index .....	47-49
1. Measure of Inflation .....	50-54
2. Measuring LEC Productivity .....	55-102
3. Mid-size and Small Company Productivity .....	103-119
4. Sharing and Adjustment Mechanism .....	120-165
5. Exogenous Costs .....	166-190
B. Application of PCI to LEC Services	
1. Service Exclusions .....	191-197
2. Baskets and Bands .....	198-226
3. Comparing Actual Prices to the PCI .....	227-229
4. Use of Existing Rates .....	230-256

### C. Eligibility

257. In this section, we discuss which LECs are subject to mandatory price cap regulation and which may elect price cap regulation. There are approximately 1400 LECs providing interstate access service, and enormous differences exist among them in the number and concentration of their access lines, the geographic location and dispersion of their affiliates, and the number of states they serve. Beyond these physical differences, LECs providing interstate access exhibit significant financial and operational differences in their assets, revenues, and earnings; the extent of their participation in NECA pools; and their use of average schedules. As previously discussed in the section on selection of a productivity offset and the need for backstop mechanisms, the vast differences among LECs caution against applying a single price cap plan to such a broad spectrum of companies.

258. Among these companies, however, there is a small group of eight very large firms that provide the great bulk of local exchange facilities and services. These are the seven Regional Bell Operating Companies (RBOCs) and the GTE Operating Company (GTOC). Together, these eight companies provide 88 percent of all local telephone lines in the U.S. (Each of the eight provides from 8.4 percent to 12.3 percent of the total number of lines.) Even the smallest of these eight, SWB, is several times larger than any of the other non-RBOC/GTOC local exchange carriers.<sup>323</sup> These few companies provide virtually all local exchange and access service in virtually all major metropolitan areas.

259. Whether and how the vast majority of ratepayers will benefit from price cap regulation depends largely on the participation of this group of companies in the program. Moreover, we believe the tentative conclusion that price cap regulation should be mandatory for these LECs is correct. Our calculation of the industry productivity offset is largely based on the historical experience of these companies. If these large LECs were permitted to choose the form of regulation they preferred, they might well manipulate the system in a way that would undercut the purposes and incentives of the program, and reduce the benefits to customers, who have no such choice. Significantly, mandatory participation by the eight largest LECs is endorsed by USTA, on behalf of all the LECs, including these eight carriers.

---

323 For example, SWB, the smallest RBOC, has 11.76 million access lines. United Telephone, the largest non-RBOC/GTOC LEC, has 3.8 million, and Lincoln, the smallest Tier 1 LEC, has .23 million. The balance of total assets is similar: SWB's \$21.16 billion compares to United's \$9.8 billion and Lincoln's \$278 million.

260. We have thus modified the scope of mandatory price cap regulation in one respect. The Commission had proposed to make price caps mandatory for all LECs with sustained regulated interstate revenues of at least \$100 million, a group we have labeled for other purposes as Tier 1 carriers. On the review of the comments and evidence, it appears that the mid-size companies do differ significantly from the eight largest companies in the size and scope of their operations, and may differ in the productivity they can reasonably be expected to achieve. For this reason, we conclude that it is more appropriate to proceed cautiously and to group these companies with the smaller Tier 2 companies for the present and allow them to choose price cap regulation on a voluntary basis.

261. For these and other LECs for whom price caps is voluntary, withdrawal from the NECA pools is a prerequisite for eligibility. LECs that continue to participate in such pools, including so-called "average schedule" companies, will not be eligible to participate. However, a LEC holding company with both cost and "average schedule" affiliates that seeks to participate in price cap regulation, will be required to convert all cost affiliates to price cap regulation, but will not be required to convert its average schedule affiliates.<sup>324</sup> We also amend the prior proposal, which would have allowed only one election date, to provide a once-a-year opportunity for additional LECs to elect price cap regulation. Finally, where a merger or acquisition takes place between a price cap company and a non-price cap company, other than an average schedule company, the non-price cap company will be required to convert to price cap regulation within one year of the transaction.

1. Mandatory price cap regulation

262. In a departure from the Second Further Notice, which proposed mandatory participation for all depooled Tier 1 LECs and their cost affiliates, we have decided to limit mandatory participation to the seven RBOCs, GTOC, and their cost affiliates, as suggested by several parties.<sup>325</sup> Others support different approaches to mandatory regulation.<sup>326</sup> Some favor

---

324 See Sections 69.605 and 69.606 of our Rules, 47 C.F.R. §§ 69.605, 69.606.

325 USTA Comments at 10-12; TDS Reply at 8; SNET Reply at 5, n.\*\*; Rochester Reply at 16-17; USTA Supplemental Comments at 11-12; NECA Supplemental Comments at 2, n.5; TDS Supplemental Reply at 8; SNET Supplemental Comments at 22.

326 Some parties suggest that price cap regulation should be entirely optional. US West Comments at 15; Ohio PUC Comments at 5, 14-15; CBT Reply at 14; Contel Comments at 22-23 n.2. We affirm the discussion in the Second Further Notice, and conclude that the price cap plan will be most effective if it is mandatory for the largest carriers.

**EXHIBIT 4**

104th Congress }  
1st Session }

SENATE

{ S. RPT.  
{ 104-23

TELECOMMUNICATIONS COMPETITION  
AND DEREGULATION ACT OF 1995

---

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND  
TRANSPORTATION

ON

S. 652



MARCH 30 (legislative day, MARCH 27), 1995.—Ordered to be printed

---

U.S. GOVERNMENT PRINTING OFFICE

99-010

WASHINGTON : 1995

are provided in that agreement. The Committee intends this requirement to help prevent discrimination among carriers and to make interconnection more efficient by making available to other carriers the individual elements of agreements that have been previously negotiated.

Subsection 251(i) requires the FCC to promulgate rules to implement section 251 within 6 months after enactment. If a State fails to carry out its responsibilities under section 251 in accordance with the rules promulgated by the FCC, the Committee intends that the FCC assume the responsibilities of the State in the applicable proceeding or matter.

Subsection 251(i) also requires the FCC or a State to waive or modify the requirements of the minimum standards of subsection 251(b) in the case of a rural telephone company, and allows the FCC or a State to waive or modify those requirements in the case of a local exchange carrier with fewer than two percent of the nation's subscriber lines installed in the aggregate nationwide. In order to waive or modify the requirements of subsection 251(b) for such companies or carriers, the FCC or a State must determine that the application of such requirements would result in unfair competition, impose a significant adverse economic impact on users of telecommunications services, be technically infeasible, or otherwise not be in the public interest. The Committee intends that the FCC or a State shall, consistent with the protection of consumers and allowing for competition, use this authority to provide a level playing field, particularly when a company or carrier to which this subsection applies faces competition from a telecommunications carrier that is a large global or nationwide entity that has financial or technological resources that are significantly greater than the resources of the company or carrier.

New subsection 251(j) provides that nothing in section 251 precludes a State from imposing requirements on telecommunications carriers with respect to intrastate services that the State determines are necessary to further competition in the provision of telephone exchange service or exchange access service, so long as any such requirements are not inconsistent with the FCC's rules to implement section 251.

New subsection 251(k) provides that nothing in section 251 is intended to change or modify the FCC's rules at 47 CFR 69 et seq. regarding the charges that an interexchange carrier pays to local exchange carriers for access to the local exchange carrier's network. The Committee also does not intend that section 251 should affect regulations implemented under section 201 with respect to interconnection between interexchange carriers and local exchange carriers.

#### *Sec. 102. Separate subsidiary and safeguard requirements*

Section 102 of the bill amends the 1934 Act to add a new section 252 to impose separate subsidiary and other safeguards on certain activities of the Bell companies. Section 102 requires that to the extent a regional Bell operating company engages in certain businesses, it must do so through an entity that is separate from any entities that provide telephone exchange service. Subsection 252(b) spells out the structural and transactional requirements that apply

**EXHIBIT 5**

**THE USE OF COMPUTER MODELS FOR  
ESTIMATING FORWARD-LOOKING ECONOMIC COSTS**

**A Staff Analysis**

**January 9, 1997**

**Jay Atkinson  
Chris Barnekov  
David Konuch  
William Sharkey  
Brad Wimmer**

analysis.<sup>65</sup> The CPM assumes that each grid is served by the wire center that is currently serving the majority of customers located in that grid. The CPM uses the latitude and longitude of each grid's centroid and the actual location of switches to calculate loop distances.<sup>66</sup> These distances are then used to determine the amount of outside plant facilities that are needed and what type of loop technology will be used.<sup>67</sup> The CPM then incorporates population density, terrain, soil type, and other geological factors to estimate the cost of loop plant.<sup>68</sup> The CPM relies on the relationship between these factors and the cost Pacific Bell has incurred when placing loop plant in areas with, for example, a particular population density or soil type, to determine the effect these factors will have on the cost of provisioning loop plant. The cost estimates derived by the CPM therefore reflect the particular characteristics of Pacific Bell's embedded network.<sup>69</sup> The BCM2 and Hatfield 2.2.2 models, by contrast, attempt to estimate the cost of providing loop plant that would be incurred by an efficient provider given current wire-center locations. The BCM2 and Hatfield 2.2.2 models employ algorithms based on what their sponsors claim estimate the minimum forward-looking cost of deploying loop plant. To the extent that changing market and technological factors make past decisions for deploying loop plant non-optimal, the CPM's approach does not accurately estimate the forward-looking cost of deploying loop plant.

40. The BCM2, Hatfield 2.2.2, and CPM have all attempted to estimate the costs of low-density areas more accurately than the BCM1, and have adopted different algorithms to do so. In order to evaluate fully these different approaches, we believe that model sponsors should provide us with independent evidence that their approach leads to an accurate estimate of the forward-looking cost of providing telecommunications service in rural areas.

## *2. Loop Plant - Fill Factors*

41. All the models include assumptions regarding feeder and distribution utilization rates (also called "fill factors"). In each model, lower utilization rates increase total loop investment because the increase in capacity associated with lower fill factors increases the amount of loop plant used to deliver telecommunication services. Thus, the choice of fill factor can have a significant effect on total cost. While all models allow user inputs for these quantities, it is not obvious what levels should be used as inputs. In a well-engineered network, it is necessary to include unused capacity when constructing loop plant to reduce the likelihood of outages in the case of breakages and to account for growth in demand. Furthermore, optimal fill factors should vary over the service life of the plant, increasing as

---

<sup>65</sup> See, *supra* para. 22.

<sup>66</sup> See Pacific Bell, Further Comments on Cost Proxy Models at 12-13, CC Docket No. 96-45.

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> ETI at 15.