

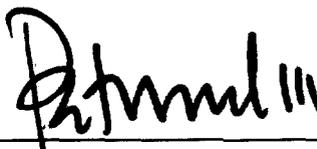
VIII. Conclusions

37. Throughout these comments, the Commission should recognize the common theme that we support a cooperative partnership between federal and state regulators on universal service issues. It is clear that the Congress directed both the Commission and state regulators to be involved in the construction of programs to ensure the preservation of universal service alongside the proliferation of competition in telecommunications. As we progress through our proceedings, and as you progress through yours, we hope to continue our discussions in order to achieve solutions that will benefit consumers throughout the nation.

Respectfully submitted,

Public Utility Commission of Texas
7800 Shoal Creek Blvd.
Austin, Texas 78757

April 3, 1996



Pat Wood, III
Chairman



Robert W. Gee
Commissioner



Judy Walsh
Commissioner

Attachment I

Public Utility Regulatory Act of 1995
Tex. Rev. Civ. Stat. Ann. art. 1446c-0 (Vernon Supp 1996)
Sections 3.358 - 3.359

Attachment I

Excerpt from 1995 Public Utility Regulatory Act

Sec. 3.358. INFRASTRUCTURE.

- (a) It is the goal of this State to facilitate and promote the deployment of an advanced telecommunications infrastructure in order to spur economic development throughout Texas. Texas should be among the leaders in achieving this objective. The primary means of achieving this goal shall be through encouraging private investment in the state's telecommunications infrastructure by creating incentives for such investment and promoting the development of competition. The best way to bring the benefits of an advanced telecommunications network infrastructure to Texas communities is through innovation and competition among all the state's communications providers. Competition will provide Texans a choice of telecommunications providers and will drive technology deployment, innovation, service quality, and cost-based prices as competing firms seek to satisfy customer needs.
- (b) In implementing this section, the commission shall consider the following policy goals of this State:
- (1) ensure the availability of the widest possible range of competitive choices in the provision of telecommunications services and facilities;
 - (2) foster competition and rely on market forces where competition exists to determine the price, terms, availability, and conditions of service in markets in which competition exists;
 - (3) ensure the universal availability of basic local telecommunications services at reasonable rates;
 - (4) encourage the continued development and deployment of advanced, reliable capabilities and services in telecommunications networks;
 - (5) assure interconnection and interoperability, based on uniform technical standards, among telecommunications carriers;
 - (6) eliminate existing unnecessary administrative procedures which impose regulatory barriers to competition and assure that competitive entry is fostered on an economically rational basis;
 - (7) assure consumer protection and protection against anticompetitive conduct;
 - (8) regulate providers of services only to the extent they have market power to control the price of services to customers;
 - (9) encourage cost-based pricing of telecommunications services so that consumers pay a fair price for services that they use; and

- (10) subject to Section 3.353 of this Act, develop quality of service standards for local exchange companies as it deems appropriate to place Texas among the leaders in deployment of an advanced telecommunications infrastructure except that the 10 percent limitation specified in Section 3.353 of this Act shall not include the requirements of Subsections (c)(1)-(4) of this section.
- (c) Recognizing that it will take time for competition to develop in the local exchange market, the commission shall act, in the absence of competition, to ensure that the following infrastructure goals are achieved by electing companies:
- (1) Electing incumbent local exchange companies shall make access to end-to-end digital connectivity available to all customers in their territories by December 31, 1996.
 - (2) Fifty percent of the local exchange access lines in each electing local exchange company's territory must be served by a digital central office switch by January 1, 2000.
 - (3) All electing company new central office switches installed in Texas must be digital, or technologically equal to or superior to digital, after September 1, 1995. At a minimum, each new central office switch installed after September 1, 1997, must be capable of providing Integrated Services Digital Network (ISDN) services in a manner consistent with generally accepted national standards.
 - (4) Electing incumbent local exchange companies' public switched network backbone inter-office facilities must employ broadband facilities capable of at least 45 megabits per second, or at lower bandwidths if evolving technology permits the delivery of video signal at quality levels comparable to a television broadcast signal, by January 1, 2000. This requirement shall not extend to local loop facilities.
- (d) (1) An electing company of greater than five million access lines shall also install Common Channel Signaling 7 capability in all central offices by January 1, 2000.
- (2) An electing company of greater than five million access lines shall connect all of its serving central offices to their respective LATA tandem central offices with optical fiber or equivalent facilities by January 1, 2000.
- (3) An electing company serving more than one million access lines and fewer than five million access lines shall provide digital switching central offices in all exchanges by December 31, 1998.
- (e) The commission may consider waivers of Subsections (c)(1)-(4) of this section for electing local exchange companies serving fewer than one million lines, if the local exchange company demonstrates that such investment is not viable economically, after due consideration is given to the public benefits which would result from compliance with such requirements; and, in addition, may consider a temporary extension of any period with respect to Subsections (c)(1)-(4) of this section for electing local exchange companies serving fewer than two million but more than one million lines, if the local exchange company demonstrates that such extension is in the public interest.

- (f) The commission may not consider the cost of implementing Subsection (c) or (d) of this section in determining whether an electing company is entitled to a rate increase under this subtitle or increased universal service funds under Section 3.608 of this Act.

Sec. 3.359. INFRASTRUCTURE COMMITMENT TO CERTAIN ENTITIES.

- (a) (1) It is the intent of this section to establish a telecommunications infrastructure that interconnects public entities described in this section. The interconnection of these entities requires ubiquitous, broadband, digital services for voice, video, and data within the local serving area. The ubiquitous nature of these connections must also allow individual networks of these entities to interconnect and interoperate across the broadband digital service infrastructure. The delivery of these advanced telecommunications services also will require collaborations and partnerships of public, private, and commercial telecommunications service network providers.
- (2) The goal of this section is to interconnect and aggregate the connections to every entity described in this section, within the local serving area. It is further intended that the implementation of the infrastructure as defined within this section connect all the entities requesting the services offered under this section.
- (b) (1) (A) On customer request, the electing company shall provide broadband digital service that is capable of providing transmission speeds of up to 45 megabits per second or better for customer applications and other customized or packaged network services (private network services) to an entity described in this section for their private and sole use except as provided in Subsection (d) of this section:
 - (i) educational institutions, as that term is defined in Section 3.605 of this Act;
 - (ii) libraries, as that term is defined in Section 3.606 of this Act;
 - (iii) nonprofit telemedicine centers of academic health centers, public or not-for-profit hospitals, or state-licensed health care practitioners;
 - (iv) public or not-for-profit hospitals;
 - (v) projects funded by the Telecommunications Infrastructure Fund described in this Act; or
 - (vi) any legally constituted consortium or group of entities listed in Subparagraphs (i)-(v) of this paragraph.
- (B) Such private network services shall be provided pursuant to customer specific contracts at a rate that is 105 percent of the long run incremental cost, including installation, of the services.
- (C) Each such contract shall be filed with the commission but not require the approval of the commission.

- (D) An electing company shall file a flat monthly tariff rate for point-to-point intraLATA 1.544 megabits per second service for the entities specified in Subsection (b)(1)(A) of this section which shall be distance insensitive and be no higher than 105 percent of the statewide average long run incremental costs, including installation, of the service.
 - (E) An electing company shall provide point-to-point 45 megabits per second intraLATA services when requested by an entity specified in Subsection (b)(1)(A) of this section pursuant to customer specific contracts except that the interoffice portion of the service, if any, will be recovered on a statewide average distance insensitive basis. The rate for this service shall be no higher than 105 percent of long run incremental cost, including installation, of the service.
 - (F) An electing local exchange company shall provide an entity described in this section with broadband digital special access service to interexchange carriers at no higher than 105 percent of the long run incremental cost, including installation, of such service.
 - (G) On customer request, the electing company shall provide expanded interconnection (virtual colocation) consistent with the rules adopted by the commission pursuant to Section 3.456 of this Act to an entity specified in Subsection (b)(1)(A) of this section at 105 percent of long run incremental cost, including installation. Such entities shall not have to qualify for such expanded interconnection if it is ordered by the commission.
 - (H) The legislature finds that an entity described in this section warrants preferred rate treatment provided that any such rates cover the long run incremental cost of the services provided.
 - (I) Notwithstanding any other provision of this Act, an electing local exchange company shall not be subject to a complaint under this section except by an entity specified in this section complaining that the provision of private network services under this section was provided preferentially to a similarly situated customer.
- (2) An entity receiving the services provided under this section may not be assessed special construction or installation charges.
 - (3) An educational institution or a library may elect the rate treatment provided in this section or the discount provided by Section 3.605 of this Act.
 - (4) Notwithstanding the pricing flexibility authorized by this Act, an electing company's rates for the services provided under this section may not be increased for six years from the date of election except as otherwise provided in customer specific contracts.
 - (5) On customer request by an educational institution or library in exchanges of an electing company serving more than five million access lines in which toll-free access to the Internet is not available, the local exchange company shall make

available a toll-free connection or toll-free dialing arrangement for use by educational institutions or libraries in accessing the Internet in an exchange in which Internet access is available on a toll-free basis. The connection or dialing arrangement shall be provided at no charge to the educational institution or library until Internet access becomes available in the exchange of the requesting educational institution or library. The local exchange company is not required to arrange for Internet access or to pay Internet charges for the requesting educational institution or library.

- (6) An electing company shall give priority to serving rural areas, areas designated as critically underserved, medically or educationally, and educational institutions with high percentages of economically disadvantaged students.
- (c) The private network services provided pursuant to this section may be interconnected with other similar networks for distance learning, telemedicine, and information sharing purposes.
- (d) The private network services provided pursuant to this section may not be shared or resold to other customers except that such services may be used by and shared among the entities described in Subsection (b)(1)(A) of this section. The services provided pursuant to this section may not be required to be resold to other customers at the rates provided in this section; however, the prohibition contained in this subsection is not intended to preclude the otherwise permitted resale of other services which may be offered by an electing company using the same facilities or a portion thereof, which are used to provide the private network services offered under this section.
- (e) For purposes of this section, the term "telemedicine center" means a facility equipped to transmit by video, data, or voice service medical information for the purpose of diagnosis or treatment of illness or disease, owned or operated by a public or not-for-profit hospital including an academic health center or such a facility owned by any state-licensed health care practitioner or group of practitioners and operated on a nonprofit basis.
- (f) The State Purchasing and General Services Act (Article 601b, Vernon's Texas Civil Statutes) does not apply to contracts entered into under this section.
- (g) The commission may not consider the cost of implementing Subsection (b), (c), or (d) of this section in determining whether an electing company is entitled to a rate increase under this subtitle or increased universal service funds under Section 3.608 of this Act.

Attachment II

Public Utility Regulatory Act of 1995
Tex. Rev. Civ. Stat. Ann. art. 1446c-0 (Vernon Supp 1996)
Section 3.403

Attachment II

Excerpt from 1995 Public Utility Regulatory Act

Sec. 3.403. INFRASTRUCTURE COMMITMENT.

- (a) A company electing under Section 3.402 of this Act shall make an infrastructure commitment in writing to the governor and commission, committing to make the following telecommunications infrastructure investment in this state over a six-year period following the company's election.
- (b) The commission shall act to ensure that the following infrastructure goals are achieved by electing companies:
 - (1) Electing incumbent local exchange companies shall make access to end-to-end digital connectivity available to all customers in their territories by January 1, 2000. "Make available" as used in this subsection shall have the definition contained in 16 T.A.C. Section 23.69.
 - (2) Fifty percent of the local exchange access lines in each electing local exchange company's territory must be served by a digital central office switch by January 1, 2000.
 - (3) All electing company new central office switches installed in Texas after September 1, 1995, must be digital.
 - (4) Electing incumbent local exchange companies' public switched network back-bone inter-office facilities must employ broadband facilities capable of at least 45 megabits per second, or at lower bandwidths if evolving technology permits the delivery of video signal at quality levels comparable to a television broadcast signal, that serve at least 50 percent of the local exchange access lines by January 1, 2000. This requirement shall not extend to local loop facilities.
 - (5) Electing incumbent local exchange companies shall install Common Channel Signaling 7 capability in all access tandem offices by January 1, 2000.
 - (6) The 10 percent limitation specified in Section 3.402 shall not include requirements of Subdivisions (1)-(5) of this subsection.
- (c) (1) On customer request, the electing company shall provide private broadband services and other customized or packaged network services (private network services) for the private and sole use of the following entities:
 - (A) educational institutions, as that term is defined in Section 3.605 of this Act;
 - (B) libraries, as that term is defined in Section 3.606 of this Act;
 - (C) telemedicine centers of public or not-for-profit hospitals;
 - (D) nonprofit telemedicine centers of state licensed health care practitioners; or

- (E) any legally constituted consortium or group of entities listed in Paragraphs (A)-(D) of this subdivision.
- (2) An electing company shall give investment priority to serving rural areas, areas designated as critically underserved, medically or educationally, and educational institutions with high percentages of economically disadvantaged students.
- (3) Such private network services shall be provided pursuant to customer specific contracts.
- (4) Such contracts shall be offered at 110 percent of the long run incremental cost including installation costs of providing the private network service.
- (5) Each such contract shall be filed with the commission but not require the approval of the commission.
- (6) The legislature finds that the classes of customers listed in Subdivisions (1)(A)-(D) of this subsection warrant preferred rate treatment provided that any such rates cover the long run incremental cost of the services provided.
- (7) Notwithstanding any other provision of this Act, an electing local exchange company shall not be subject to a complaint under this section except by:
- (A) educational institutions, as that term is defined in Section 3.605 of this Act;
- (B) libraries, as that term is defined in Section 3.606 of this Act;
- (C) telemedicine centers of public or not-for-profit hospitals;
- (D) nonprofit telemedicine centers of state-licensed health care practitioners; or
- (E) any legally constituted consortium or group of entities listed in Paragraphs (A)-(D) of this subdivision.
- (8) Educational institutions, libraries, telemedicine centers of public or not-for-profit hospitals, and nonprofit telemedicine centers of state-licensed health care practitioners receiving the services provided under this section may not be assessed tariffed special construction or installation charges unless agreed upon by the local exchange company and entities specified in Subdivision (1) of this subsection.
- (9) An educational institution or a library may elect this rate treatment or the discount provided by Section 3.605 of this Act.
- (10) Notwithstanding the pricing flexibility authorized by this Act, the electing company's rates for this service may not be increased for six years from the date of election.
- (11) On request, for 1.544 megabits per second private line or special access service by educational institutions and libraries, that service shall be offered at 110 percent

of the long run incremental cost including installation costs. This rate is in lieu of the discount provided by Section 3.605 of this Act.

- (12) The customers specified in this section constitute a special class of customer for purposes of the private network for distance learning, telemedicine, and information sharing purposes.
 - (13) The private network services provided pursuant to this section may be interconnected with other similar networks for distance learning, telemedicine, and information sharing purposes.
 - (14) The private network services provided pursuant to this section may not be shared or resold to other customers except that they may be used and shared among the entities specified in Subdivision (1) of this subsection. The services provided pursuant to this section may not be required to be resold to other customers at the rates provided in this section; provided, however, the prohibition contained in this subsection is not intended to preclude the otherwise permitted resale of other services which may be offered by an electing company using the same facilities or a portion thereof, which are used to provide the private network services offered under this section.
- (d) The commission may consider waivers of requirements listed in Subsections (b)(1)-(5) of this section for electing local exchange companies serving fewer than one million lines if the local exchange company demonstrates that such investment is not viable economically, after due consideration is given to the public benefits which would result from compliance with such requirements.
- (e) The commission may not consider the cost of implementing Subsection (b) or (c) of this section in determining whether an electing company is entitled to a rate increase under this subtitle or increased universal service funds under Section 3.608 of this Act.
- (f) For purposes of this section:
- (1) "Private network services" means the telecommunications services provided to an entity described in Subsection (c)(1)(A) of this section and includes broadband services, customized, and packaged network services and does not limit the local exchange company from providing these services with facilities which are also used to provide other services to other customers.
 - (2) "Telemedicine center" means a facility equipped to transmit, by video or data service, medical information for the purpose of diagnosis or treatment of illness or disease, owned or operated by a public or not-for-profit hospital, or such a facility owned by any state-licensed health care practitioner and operated on a nonprofit basis.

(g) Each electing company shall file a report with the commission each year on the anniversary date of its election that sets forth its progress on its infrastructure commitment. The report shall include:

- (1) the institutions requesting service under this section;
- (2) the institutions served under this section;
- (3) investment and expense in the previous period and cumulative for all periods; and
- (4) any other information the commission considers necessary.

Attachment III

Public Utility Regulatory Act of 1995
Tex. Rev. Civ. Stat. Ann. art. 1446c-0 (Vernon Supp 1996)
Section 3.605

Attachment III

Excerpt from 1995 Public Utility Regulatory Act

Sec. 3.605. DISTANCE LEARNING ACTIVITIES BY EDUCATIONAL INSTITUTIONS AND INFORMATION SHARING PROGRAMS BY LIBRARIES; REDUCED RATES.

- (a) The commission by rule shall require a dominant carrier to file a tariff containing a reduced rate for a telecommunications service the commission finds is directly related to a distance learning activity that is or could be conducted by an educational institution in this state or an information sharing program that is or could be conducted by a library in this state.
- (b) The commission rules shall specify:
 - (1) the telecommunications services that qualify under this section;
 - (2) the process by which an educational institution or library qualifies for a reduced rate;
 - (3) the date by which a dominant carrier shall file a tariff;
 - (4) guidelines and criteria by which the services and reduced rates shall further the goals stated in Subsection (d) of this section; and
 - (5) any other requirements, terms, and conditions that the commission determines to be in the public interest.
- (c) A tariff filing by a dominant carrier under this section:
 - (1) shall concern only the implementation of this section;
 - (2) is not a rate change under Section 3.211 of this Act; and
 - (3) does not affect any of the carrier's other rates or services.
- (d) The services and reduced rates shall be designed to:
 - (1) encourage the development and offering of distance learning activities by educational institutions or information sharing programs of libraries;
 - (2) meet the distance learning needs identified by the educational community and the information sharing needs identified by libraries; and
 - (3) recover the long-run incremental costs of providing the services, to the extent those costs can be identified, so as to avoid subsidizing educational institutions or libraries.
- (e) The commission is not required to determine the long-run incremental cost of providing a service before approving a reduced rate for the service. Until cost determination rules are developed and the rates established under this section are changed as necessary to ensure proper cost recovery, the reduced rates established by the commission shall be

equal to 75 percent of the otherwise applicable rate. After the commission develops cost determination rules for telecommunications services generally, it shall ensure that a reduced rate approved under this section recovers service-specific long-run incremental costs and avoids subsidization.

- (f) An educational institution, library, or dominant carrier may at any time request the commission to:
 - (1) provide for a reduced rate for a service directly related to a distance learning activity or an information sharing program that is not covered by commission rules;
 - (2) change a rate;
 - (3) amend a tariff; or
 - (4) amend a commission rule.
- (g) If the commission determines that a change requested under Subsection (f) is appropriate, it shall make the requested change.
- (h) In this section:
 - (1) "Distance learning" means instruction, learning, and training that is transmitted from one site to one or more sites by telecommunications services that are used by an educational institution predominantly for such instruction, learning, or training, including video, data, voice, and electronic information.
 - (2) "Educational institution" means and includes:
 - (A) accredited primary or secondary schools owned or operated by state and local governmental entities or private entities;
 - (B) institutions of higher education as defined by Section 61.003, Education Code;
 - (C) private institutions of higher education accredited by a recognized accrediting agency as defined by Section 61.003(13), Education Code;
 - (D) the Texas Education Agency, its successors and assigns;
 - (E) regional education service centers established and operated pursuant to Chapter 8, Education Code; and
 - (F) the Texas Higher Education Coordinating Board, its successors and assigns. [Sec. 96B]
 - (3) "Library" means a "public library" or "regional library system" as those terms are defined by Section 441.122, Government Code, or a library operated by an institution of higher education or a school district.

Attachment IV

Public Utility Regulatory Act of 1995
Tex. Rev. Civ. Stat. Ann. art. 1446c-0 (Vernon Supp 1996)
Section 3.606

Attachment IV

Excerpt from 1995 Public Utility Regulatory Act

Sec. 3.606. TELECOMMUNICATIONS INFRASTRUCTURE FUND.

(a) In this section:

- (1) "Board" means the Telecommunications Infrastructure Fund Board.
- (2) "Fund" means the telecommunications infrastructure fund.
- (3) "Institution of higher education" has the meaning assigned by Section 61.003, Education Code, and also includes a "private or independent institution of higher education" as defined by Section 61.003, Education Code.
- (4) "Library" means a "public library," or "regional library system" as those terms are defined by Section 441.122, Government Code, or a library operated by an institution of higher education or a school district.
- (5) "School district" has the meaning assigned by Section 19.001, Education Code.
- (6) "Private network services" means the telecommunications services provided to an entity described in Section 3.359(b)(1)(A) of this Act and includes broadband services, customized, and packaged network services and does not limit the local exchange company from providing these services with facilities which are also used to provide other services to other customers.
- (7) "Public, not-for-profit hospital" or "public not-for-profit health care facility" means a rural or regional hospital or entity such as a rural health clinic which is supported by local or regional tax levies or is, under federal definition, a certified not-for-profit health corporation.
- (8) "Telemedicine" means consultive, diagnostic, or other medical services delivered via telecommunications technologies to rural or underserved public, not-for-profit hospitals and primary health care facilities in collaboration with an academic health center and associated teaching hospitals or tertiary centers. Telemedicine includes, but is not limited to, interactive video consultation, teleradiology, telepathology, and distance education for working health care professionals.
- (9) "Commercial mobile service provider" means a provider of commercial mobile service under Sections 153(n) and 332(d), Communications Act of 1934 (47 U.S.C. Section 151 et seq.), Federal Communications Commission rules, and the Omnibus Budget Reconciliation Act of 1993.

(b) The legislature finds that commercial mobile service providers benefit from the public telecommunications network by the ability to originate and terminate calls that transverse mobile and cellular network and that they will benefit by virtue of the advancement of the public telecommunications network through projects funded under this section. Therefore, it is the policy of this state that commercial mobile service providers contribute an appropriate amount to the telecommunications infrastructure fund.

- (c) The board shall administer the fund, including the two accounts in the fund. The board consists of nine members. Three members are appointed by the governor, three members are appointed by the lieutenant governor, and three members are appointed by the governor from a list of individuals submitted by the speaker of the house of representatives. Members of the board serve for staggered, six-year terms, with three members' terms expiring on August 31 of each odd-numbered year. The governor shall designate the presiding officer of the board.
- (d) The governor and the lieutenant governor, in making their appointments to the board, and the speaker of the house of representatives, in compiling the list of recommended persons, shall attempt to select members who are representative of, but not limited to, urban and rural school districts, institutions of higher education, libraries, and the public. A person may not serve on the board if the person is required to register as a lobbyist under Chapter 305, Government Code, because of the person's activities for compensation on behalf of a profession related to the operation of the board.
- (e) Members of the board serve without pay but are entitled to reimbursement for their actual expenses incurred in attending meetings of the board or in attending to other work of the board if approved by the chairman of the board.
- (f) The board is subject to Chapters 551 and 2001, Government Code. The board is subject to Chapter 325, Government Code (Texas Sunset Act). Unless continued in existence as provided by that chapter, the advisory board and this section expire September 1, 2006.
- (g) The board is authorized to employ any personnel as reasonably necessary to perform duties delegated by the board, and the board may also enter into contracts as are necessary with state agencies or private entities to perform its duties.
- (h) The board may appoint any committees as it determines may assist it in performing its duties under this section.
- (i) The board shall prepare an annual report detailing the revenues deposited to the credit of the fund, including each account, and summarizing the grants and loans made from each account. Not later than January 15 of each year, the board shall submit the report for the preceding year to the governor and to each standing committee in the senate and house of representatives that has jurisdiction over public or higher education.
- (j) The fund is composed of the telecommunications utilities account and the commercial mobile service providers account. The telecommunications utilities account is financed by an annual assessment on all telecommunications utilities doing business in this state. Each telecommunications utility shall pay the annual assessment in accordance with the ratio that the annual taxable telecommunications receipts reported by that telecommunications utility under Chapter 151, Tax Code, bears to the total annual taxable telecommunications receipts reported by all telecommunications utilities under Chapter 151, Tax Code.
- (k) The commercial mobile service providers account is financed by an annual assessment on all commercial mobile service providers doing business in this state. Each commercial mobile service provider shall pay the annual assessment in accordance with the ratio that the annual taxable telecommunications receipts reported by that provider under Chapter

151, Tax Code, bears to the total annual taxable telecommunications receipts reported by all commercial mobile service providers under Chapter 151, Tax Code.

- (l) For the fiscal year beginning September 1, 1995, and for the nine fiscal years immediately following that year, for a total of 10 years, the comptroller shall assess and collect a total annual amount of \$75 million from telecommunications utilities and a total annual amount of \$75 million from commercial mobile service providers. The amounts assessed against both the telecommunications utilities and the commercial mobile service providers shall be assessed and collected in each year without respect to whether all of the funds previously collected and deposited in either or both accounts have been disbursed or spent due to lack of demand or otherwise.
- (m) The comptroller may require telecommunications utilities and commercial mobile service providers to provide any reports and information as are needed to fulfill the duties of the comptroller provided by this section. Any information provided to the comptroller by a telecommunications utility or commercial mobile service provider under this section is confidential and exempt from disclosure under Chapter 552, Government Code.
- (n) All amounts collected by the comptroller from telecommunications utilities under Subsection (l) of this section shall be deposited to the credit of the telecommunications utilities account in the telecommunications infrastructure fund in the state treasury. All amounts collected by the comptroller from commercial mobile service providers under Subsection (l) of this section shall be deposited to the credit of the commercial mobile service providers account in the telecommunications infrastructure fund in the state treasury. Money in the fund may be appropriated only for a use consistent with the purposes of this section. Sections 403.094 and 403.095, Government Code, do not apply to the fund or either account.
- (o) From funds appropriated to the board, the comptroller shall issue warrants as requested by the board in accordance with the purposes of this section, including warrants to grantees of the board in amounts certified by the board to the comptroller.
- (p) In addition to any appropriated funds, the board may accept gifts, grants, and donations and use them for the purposes of this section.
- (q) The board shall use money in the telecommunications utilities account to award grants and loans in accordance with this section to fund equipment purchases, including computers, printers, computer labs, and video equipment, for public schools and for intracampus and intercampus wiring to enable those public schools to use the equipment. The board shall use money in the commercial mobile service providers account for any purpose authorized by this section, including equipment purchases, wiring, material, program development, training, installation costs, or any statewide telecommunications network.
- (r) Subject to the limitations prescribed by Subsection (q) of this section, the board may award grants to projects and proposals that:
 - (1) provide equipment and infrastructure needed for distance learning, information sharing programs of libraries, and telemedicine services;

- (2) develop and implement the initial or prototypical delivery of courses and other distance learning material;
 - (3) train teachers, faculty, librarians, or technicians in the use of distance learning or information sharing materials and equipment;
 - (4) develop curricula and instructional material especially suited for delivery by telecommunications;
 - (5) provide electronic information; or
 - (6) establish or carry out information sharing programs.
- (s) Subject to the limitations prescribed by Subsection (q) of this section, the board may award loans to projects and proposals to acquire equipment needed for distance learning and telemedicine projects.
- (t) In awarding grants and loans in accordance with this section, the board shall give priority to projects and proposals that:
- (1) represent collaborative efforts involving multiple schools, universities, or libraries;
 - (2) contribute matching funds from other sources;
 - (3) show promise of becoming self-sustaining;
 - (4) help users of information learn new ways to acquire and use information through telecommunications;
 - (5) extend specific educational information and knowledge services to groups not previously served, especially those in rural and remote areas;
 - (6) result in more efficient or effective learning than through conventional teaching;
 - (7) improve the effectiveness and efficiency of health care delivery; or
 - (8) take advantage of distance learning opportunities in rural and urban school districts with disproportionate numbers of at-risk youths or with high dropout rates.
- (u) The Texas Higher Education Coordinating Board, the Central Education Agency, and the Texas State Library and Archives Commission shall adopt policies and procedures in consultation with the board that are designed to aid the board in achieving the purposes of this section.
- (v) In distributing funds to public schools, the board shall take into account the relative property wealth per student of the recipient school districts and recognize the unique needs of rural communities.

Attachment V

**Public Utility Substantive Rule
23.91**

Attachment V

**Excerpted from Substantive Rules of the Public Utility Commission of Texas
(PUC Sub. R. 23.91)**

§23.91 Long Run Incremental Cost Methodology for Dominant Certificated Telecommunications Utility (DCTU) Services.

- (a) **Application.** This section shall apply to DCTUs with annual revenues from regulated telecommunications operations in Texas of \$100 million or more for five consecutive years. An incumbent local exchange carrier that is not a Tier 1 local exchange company as of September 1, 1995, at that company's option, may adopt the cost studies approved by the commission for a Tier 1 local exchange company.
- (b) **Purpose.** This section shall be used to determine the long run incremental costs incurred by DCTUs in the provision of telecommunications services. The costs determined in this section shall not be used to determine a company's revenue requirement during a proceeding pursuant the Public Utility Regulatory Act of 1995, §3.210 or §3.211.
- (c) **Definitions.** The following words and terms when used in this section shall have the following meaning unless the context clearly indicates otherwise.
 - (1) **Ancillary Services** — The category of basic network functions (BNFs) (as defined in paragraph (2) of this subsection) that provide for certain activities that either support or otherwise are adjuncts to other BNFs or finished services. This category of BNFs consists of three subcategories of BNFs: Billing and Collection; Measurement; and Operator Services.
 - (A) **Billing and Collection** — The subcategory of BNFs that provide for the function of compiling the information needed for customer billing, preparing the customer bill statement, disbursing the bill and collecting the customer payments.
 - (B) **Measurement** — The subcategory of BNFs that provide the functions of assembling, collating and transmitting end office switch recorded call data (occurrence and duration).
 - (C) **Operator Services** — The subcategory of BNFs that provide for the provision of a number of live or mechanized assistance functions to aid customers in the following ways: obtaining customer telephone number, street address and ZIP code information (directory assistance); providing new telephone numbers or explanatory information to callers who dial numbers which have been changed or disconnected (intercepts); providing assistance to customers in completing operator handled toll or local calls (collect, credit card, third party, station-to-station or person-to-person); checking busy lines to make sure the line is not out of service (busy line verification); and interrupting busy lines (busy line interruption). These Operator Services are provided to end user customers as well as local exchange and interexchange carriers.
 - (2) **Basic network function (BNF)** — A discrete network function, which is useful either as a stand-alone function or in combination with other functions, for which costs can be identified.
 - (3) **Capital costs** — The recurring costs that result from expenditures for plant facilities that are capitalized. The annual capital costs consist of depreciation, cost of money, and income taxes.
 - (4) **Categories of BNFs** — All BNFs shall fall into one of four categories of BNFs. The categories are: Network Access (as defined in paragraph (18) of this subsection); Switching and Switch Functions (as defined in paragraph (20) of this subsection); Dedicated and Switched Transport (as defined in paragraph (10) of this subsection); and Ancillary Services (as defined in paragraph (1) of this subsection).
 - (5) **Common costs** — Costs that are not directly attributable to individual cost objects. For the purposes of this section there are three types of common costs: general overhead costs; costs common to BNFs; and costs common to services.
 - (A) **General overhead costs** — Costs incurred in operating and managing the company that are not directly attributable to BNFs or services.

- (B) **Costs common to BNFs** — Costs incurred in the provision of BNFs that can not be directly attributed to any one BNF individually but only to a category or subcategory of BNFs collectively.
- (C) **Costs common to services** — Costs incurred in the provision of two or more services that do not vary with changes in the relative proportions of the outputs of those services. Common costs are not directly attributable to any one service individually but only to a group of services collectively. In the event a BNF is used in the provision of two or more services then the volume insensitive cost of the BNF is a cost common to the services that use the BNF. However, if the technological requirements for the provision of one service alter the least cost technology choice for common BNFs or common facilities, then the increase in costs caused by the requirements for more advanced technologies is not a common cost but a cost directly attributable to the service that alters the least cost technology choice.
- (6) **Cost causation principle** — The principle that only those costs that are caused by an activity (such as a network function, service, or group of services) in the long run are directly attributable to that activity. Costs are caused by an activity, in the long run, if the costs are brought into existence as a direct result of the activity.
- (7) **Cost driver** — A specific condition, under which a BNF is provided, whose change causes significant and systematic changes in the cost of providing a BNF. For example, if the cost of providing a Network Access Channel varies with the density and size of a wire center, then density and size are cost drivers for that BNF.
- (8) **Cost of debt** — The rate of interest paid on borrowed money.
- (9) **Cost of money** — The weighted annual cost to the DCTU of the debt and equity capital invested in the company.
- (10) **Dedicated and Switched Transport** — The category of BNFs that provide for dedicated or shared transmission transport between two or more DCTU switching offices or wire centers. This BNF category consists of two subcategories of BNFs: Dedicated Transport and Switched Transport.
 - (A) **Dedicated Transport**. — The subcategory of BNFs that provide for full period, bandwidth specific (e.g., DS-0, DS-1, DS-3) interoffice transmission paths between the originating and terminating points of channel connection.
- (11) **Depreciation expenses** — The charges based on the depreciation accrual rates designed to spread the cost recovery of the property over its economic life.
- (12) **Expenses** — Costs incurred in the provision of services that are expensed, rather than capitalized, in accordance with the Uniform System of Accounts applicable to the carrier.
- (13) **Group of services** — A number of separately tariffed services that share significant common costs (as defined in paragraph (5) of this subsection) that are necessary and unique to the provision of those services and are not directly attributable to any one service individually. This term also refers to a situation in which two or more groups of services are part of a larger group of services because of significant common costs that are necessary and unique to the provision of all the services in the group but are not directly attributable to any one group or service individually.
- (14) **Least cost technology** — The technology, or mix of technologies, that would be chosen in the long run as the most economically efficient choice. The choice of least cost technologies, however, shall
 - (A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;
 - (B) be consistent with the level of output necessary to satisfy current demand levels for all services using the BNF in question; and
 - (C) be consistent with overall network design and topology requirements.
- (15) **Long run** — A time period long enough to be consistent with the assumption that the company is in the planning stage and all of its inputs are variable and avoidable.
- (16) **Long run incremental cost (LRIC)** — The change in total costs of the company of producing an increment of output in the long run when the company uses least cost technology. The LRIC should exclude any costs that, in the long run, are not brought into existence as a direct result of the increment of output.
- (17) **Measure of unit cost** — The measure of usage used to calculate unit cost for a particular BNF (for example, a minute of use of a switching function, or a quarter mile of a DS-1 Network Access Channel). The measure of unit costs may be multidimensional; for example, it may have both time and distance components. The measure of unit cost chosen for a BNF shall correspond to the basis upon which the costs of that BNF are incurred.

- (18) **Network Access** — The category of BNFs that accommodate access to other network functions provided by DCTUs. Access is accomplished by transmission paths between customers and DCTU wire centers. This category consists of three subcategories of BNFs: Network Access Channel; Network Access Channel Connection; and Channel Performance and Other Features and Functions.
- (A) **Network Access (NA) Channel** — The subcategory of BNFs that provide the transmission path between the point of interface at the customer location and the main distribution frame, or equivalent (e.g., DSX-1, DSX-3), of a DCTU wire center.
- (B) **Network Access (NA) Channel Connection** — The subcategory of BNFs that provide the interface between the Network Access Channel and the DCTU wire center switching equipment, subsequent dedicated transport equipment (dedicated interoffice circuits), or subsequent channel equipment (dedicated intraoffice circuits).
- (C) **Channel Performance and Other Features and Functions** — The subcategory of BNFs that provide the channel functions associated with transmission or service type (e.g., analog, digital, coin, ISDN), bandwidth conversion, signaling, multiplexing, amplification, and channel performance.
- (19) **Significant** — For the purposes of this section, the qualifying term significant is used to refer to instances in which costs or changes affect total study results by at least five percent. This general guideline for when costs or changes are significant may be relaxed by considering the cumulative effect of either including or excluding costs or changes from a study.
- (20) **Subcategories of BNFs** — Groupings of closely related BNFs in a category of BNFs.
- (21) **Switching and Switch Functions** — The category of BNFs that provide for switched access between two or more Network Access Channels or between Network Access Channels and other BNFs, such as interoffice transport. This function is accomplished through the establishment of a temporary transmission path between Network Access Channels in the same switching office; between a Network Access Channel and the interoffice facilities that interconnect switching offices; or between a Network Access Channel and other BNFs. This BNF category shall cover the first point of switching for a customer. This BNF category consists of three subcategories of BNFs: Interoffice Switching; Intraoffice Switching; and Switching Features.
- (A) **Interoffice Switching** — The subcategory of BNFs that provide for: switching between Network Access Channels and Switched Transport facilities which are connected to different wire centers; and switching between Network Access Channels and Switched Transport facilities when a tandem switch is used as the first point of interface to the DCTU switched network (e.g., connection of facilities from an interexchange carrier's point of network interface).
- (B) **Intraoffice Switching** — The subcategory of BNFs that provide for switching between two or more Network Access Channels within the same wire center.
- (22) **Unit cost** — A cost per unit of output calculated by dividing the total long run incremental cost of production by the total number of units.
- (23) **Volume sensitive costs** — The costs of providing a BNF that vary with the volume of output of the services that use the BNF.
- (24) **Volume insensitive costs** — The costs of providing a BNF that do not vary with the volume of output of the services that use the BNF.
- (d) **General principles.**
- (1) Underlying the construction and application of this section is the recognition that the DCTU network consists of a finite number of BNFs that, when bundled in various combinations, can be used to deliver and market a vast variety of telecommunications services. Therefore, the determination of the cost of a service and the costs of a group of services under this section shall involve the identification and costing of BNFs.
- (2) The LRIC studies that the DCTU is required to file under this section shall assume that the company is operating in the long run and employs least cost technologies, as those terms are defined in subsection (c) of this section.
- (3) In order to obtain accurate LRIC study results, the DCTU shall avoid the use of embedded cost data; expense items and capital costs shall reflect long run incremental costs and the DCTU shall justify any instance in which embedded cost data are used. Further, the fact that the costs determined under this section may differ from the company's embedded costs as determined during proceedings under

- the Public Utility Regulatory Act of 1995, §3.210 or §3.211, should in no way cause the company to attribute any of this cost discrepancy to LRIC studies for BNFs, services, or groups of services.
- (4) The appropriate methods for service pricing and recovery of the revenue requirement will be developed in the rulemaking proceeding mandated under subsection (p) of this section.
 - (5) When a BNF is used in the provision of two or more services then the volume insensitive cost of the BNF is a cost common to the services (as defined in subsection (c)(5)(C) of this section) that use the BNF.
 - (6) When services share significant common costs (as defined in subsection (c)(5)(C) of this section), none of the common costs shall be included in the LRIC studies for the services individually; instead, the company shall identify which services share the common costs and attribute the cost recovery responsibility of these costs to the group of services collectively. Specifically, the individual LRIC studies for residential and business basic local exchange service, as these services are tariffed on the effective date of this section, shall exclude any volume insensitive costs associated with the use of the Network Access Channel Basic Level (as defined in subsection (e)(1)(A) of this section) and Network Access Channel Connection Basic Level (as defined in subsection (e)(2)(A) of this section).
 - (7) When two or more groups of services share common costs, none of the common costs shall be included in the LRIC studies for groups individually; instead, the company shall identify which groups share the common costs and assign the common cost recovery responsibility of these costs to these groups collectively.
 - (8) Nothing in this section is intended to either endorse or reject the DCTU's current rate and tariff structures.
- (e) **Identification of Basic Network Functions.** The DCTU shall identify for each subcategory of BNFs the relevant and separately identifiable BNFs. The determination of the appropriate degree of aggregation of network components, functions, or activities into separately identifiable BNFs shall be consistent with the principles described in subsection (d) of this section. Furthermore, in choosing BNFs, the DCTU shall seek to minimize the number of network components, functions, or activities that are not included in BNFs. In addition to BNFs the company identifies under this subsection, the company shall identify for each subcategory of BNFs the following prescribed BNFs:
- (1) **Required BNFs for subcategory Network Access (NA) Channel:**
 - (A) **NA Channel Basic Level:** A transmission path which provides less than 1.544 Mbps digital capability. This includes 300 to 3,000 Hz analog voice service.
 - (B) **NA Channel DS-1 Level:** A transmission path which has 1.544 MBPS digital capability.
 - (C) **NA Channel DS-3 Level:** A transmission path which has 45 MBPS digital capability.
 - (2) **Required BNFs for subcategory NA Channel Connection:**
 - (A) **NA Channel Connection Basic Level:** An interface for channels which provide less than 1.544 Mbps digital capability. This includes the interface for 300 - 3,000 Hz analog voice service which is the basic interface for most voice grade services such as: basic local residential and local business service, PBX trunks, Centrex-type access lines and voice grade dedicated transport service. In addition, this category includes the interface for four frequency bandwidths provided for audio channels such as: 200 to 3,500 Hz, 100 to 5,000 Hz, 50 to 8,000 Hz and 50 to 15,000 Hz. Also included in this BNF are the interfaces for low speed data transmission at speeds of 2.4, 4.8, 9.6, 56 Kbps and all other speeds below the T-1 rate of 1.544 Mbps. This interface is for narrowband service.
 - (B) **NA Channel Connection DS-1 Level:** An interface for 1.544 MBPS digital transmission channels. This interface connects high capacity wideband transmission channels which operate in a full duplex, time division (digital) multiplexing mode.
 - (C) **NA Channel Connection DS-3 Level:** An interface for 45 MBPS digital transmission channels. This interface connects broadband transmission channels which operate in full duplex, time division (digital) multiplexing mode.
 - (3) **Required BNFs for subcategory Channel Performance and Other Features and Functions:**
 - (A) **Standard signaling and transmission level capabilities.** Signaling and transmission level capabilities suitable for a wide variety of network services and applications associated with the BNF NA Channel Basic Level, as defined in paragraph (1)(A) of this subsection.
 - (B) **Nonstandard signaling and transmission level capabilities and other features.** Signaling and transmission level capabilities and other features and functions, other than those defined in