NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION
The Voice of Rural Telecommunications
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NTCA Principles for Universal Service Reform[1]

Western Wireless has proposed a complicated, unnecessary, and dangerous platform for universal service reform.[2] They ask the Joint Board to overhaul the decades-old high cost support system for rural ILECs that is based on rate-of-return regulation and embedded costs, and to replace it with a cumbersome and misguided system of alternative regulation, support caps, and cost proxy models. Their proposal endangers the goals of section 254 of the Telecommunications Act and threatens affordable universal service in high cost areas. The only thing the Western Wireless proposal does not address is the extent to which wireless ETCs actually need support from the limited high cost funds. NTCA proposes alternative policy principles that are simpler, that focus attention on the real issues associated with multiple ETCs, and that do not endanger federal universal service principles. These principles are:

1. There is no need to overhaul rate-of-return regulation and the use of embedded costs for calculating rural ILEC high cost support. As discussed in the NTCA/OPASTCO White Paper[3], these "issues" are red herrings and are at least as likely to reduce economic efficiency as to improve it. For decades regulators have agreed to allow rural ILECs to invest in high-cost and insular areas within the United States based on a system of rate-of-return regulation. This "regulatory compact" has allowed the Commission to meet its Congressional mandate of ensuring that rural consumers have access to telecommunications services at prices that are comparable to similar services and prices received by urban consumers. Reforming these essential parts of the "regulatory compact" pose grave dangers for telecommunications services in high cost areas. Rate-of-return regulation, embedded cost, and regulated lengthy depreciation lives have comprised a combination of policies designed to induce investment in high cost areas in the absence of formal long-term contracts to recover these costs. Financial markets are closely monitoring how regulators deal with this regulatory compact, with implications for future investment in rural communities.[4] The dangers to future rural investment posed by the Western Wireless proposal are totally unwarranted – they are only a diversion from the real issues raised by multiple ETCs.

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[1]These principles were developed with the assistance of Professor Dale Lehman of Alaska Pacific University. Professor Lehman has also authored, "Universal Service and the Myth of the Level Playing Field." See NTCA & OPASTCO *Ex Parte* Notice filed *In the Matter of the Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, dated August 12, 2003.

[2]See Western Wireless *Ex Parte* Notice filed *In the Matter of the Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, dated September 8, 2003.

[3] NTCA/OPASTCO White Paper, "Universal Service and the Myth of the Level Playing Field," by Dale Lehman, August 12, 2003. See NTCA *Ex Parte* Notice filed *In the Matter of the Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, dated September 16, 2003.

[4] For example, see the remarks of Michael Balhoff of Legg Mason Wood Walker, Inc. before the House Small Business Committee, September 25, 2003.

2. Competitive neutrality requires treating identically situated competitors equally or treating differently situated competitors differently. Competitive neutrality is the regulatory analogue of nondiscriminatory treatment, and discrimination occurs when equals are treated unequally or when unequals are treated equally. Equal support of wireless and wireline ETCs requires that they provide the same services, with the same quality, in the same areas. Alternatively, if the services are fundamentally different (as Western Wireless maintains), then competitive neutrality requires that they be treated differently. The principles outlined here reflect an appropriate way to determine support for wireless ETCs that is both consistent with these differences as well as reflecting competitive and technological neutrality. Most importantly, it achieves the goals of section 254.

3. The public interest test for wireless ETC designation must be strengthened. The current system embodies a "tragedy of the commons"[5] and requires federal guidance as a result. Federal high cost support is a common pool that is drawn on by state-designated ETCs. Individual states cannot ensure conservation of these limited funds since they cannot control the ETC designation in other states. This is a class common property problem that, predictably, results in incentives to designate too many ETCs. Federal guidelines are required so that states can be assured that other states will apply similar public interest tests for designating multiple ETCs in rural service areas. NTCA has offered detailed guidance on this public interest test in Appendix II. Appendix III also contains a list of the seven factors for consideration in NTCA's Proposed 7-Point Public Interest Test.

In particular, NTCA's principles address several necessary elements of a cost-effective universal service policy. These principles require a showing that support is needed to achieve the goals of section 254, as well as providing guidance on the magnitude of the required support. The additional benefits from multiple ETCs must be weighed against the demands they place on the limited public support available for universal service. This support is part of the social compact under which investment in prohibitively expensive facilities was undertaken to provide service to all residents of high cost areas, and the continued viability ("sufficiency") of these funds must be part of the public interest test.

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[5] Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (1968): 1243-1248. This classic work portrays how individually rational people will overuse a common property resource. Hardin's example was of a common grazing land that would be overgrazed since each herdsperson would decide to graze too many cattle: failure to do so would forgo benefits and would not prevent the disaster of everybody else's overgrazing actions; if others do not overgraze, then an individual's actions would not lead to disaster. This situation has been applied to fisheries, clean air and water, recreational land, and other environmental resources. It also describes the present circumstance of a common support fund that individually rational state regulators control access to. The usual "solution" to the tragedy of the commons is some type of collective action that limits access to the resource.

4. Specific information is required on wireless service costs in high cost areas: this information is required both in the ETC designation process as well as in determining an appropriate support level. As a threshold matter, there is no evidence that rural service areas are high cost service areas for wireless providers. The presumption is that areas with lower population density lead to higher service provision costs for both wireline and wireless technologies. This presumption may not be warranted. Wireless cost structures are fundamentally different than wireline cost structures. Wireless service has smaller economies of scale than wireline service. As a result, the extent to which rural ILEC high cost areas coincide with wireless high cost areas is presently unknown.

Appendix I provides some preliminary evidence that casts doubt on the presumption of similar cost characteristics. It compares wireless and wireline costs at the wire center level, based on models submitted by Western Wireless.[6] NTCA does not view these models as providing accurate cost levels for either technology nor does it support the particular inputs used in the default runs of these models. Thus, the comparison of wireless and wireline cost *levels* is not reliable. The *structure* of costs should be more reliable, however. Both models are engineering-economic models and should capture the basic way in which population density affects costs since that is a primary determinant of the need for, and placement of, facilities required to provide service. Preliminary results indicate that wireless technology exhibits much smaller economies of scale, if any, compared with wireline service. Wireline service shows strong evidence that costs are inversely related to density. Wireless service only shows higher costs at very low density levels – and that is on the assumption that wireless service is configured to serve the <u>entire</u> demand in such areas. Absent a requirement to build out facilities to serve all such customers (a "carrier of last resort" responsibility), wireless carriers may not even incur the high costs indicated by the model in such areas. There is no evidence from these models that wireless costs are higher than average except in these most sparsely populated areas (< 1 household/mi^2). Thus, we don't really know whether wireless costs really are a barrier to comparable services at comparable rates in rural ILEC high cost areas.

5. Determining support levels for wireless ETCs should follow a comparable methodology as used for determining support levels for rural ILECs. This is the appropriate meaning for competitive neutrality applied to wireless and wireline services that differ in fundamental ways.

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[6] HAI Wireless Model Version 4.0a, HAI Consulting, Inc. and Western Wireless, filed by Western Wireless with the Nebraska Public Service Commission, NUSF-26, late-filed Exhibit 13, February 20, 2002. Also a reference to the wireless model is found in August 26, 1998 *ex parte* presentations by Western Wireless in CC Docket No. 96-45.

There are several high cost support funds. Each is calculated differently. These support funds are:

High Cost Loop (HCL)
Local Switching Support (LSS)
Long Term Support (LTS)
Interstate Common Line Support (ICLS)
Safety Net Additive.

These funds are all based upon rural ILEC costs for each study area. These costs are designed to provide explicit support for wireline carriers based upon wireline costs for each study area. The objective is to achieve reasonably comparable rates and services in rural and urban areas where there is an obstacle in the form of high network costs in serving rural areas (due to low density).

In broad outline, the rural wireline HCL adjustment operates as follows: The barrier is designated as Costs > 115% of national average loop costs (NACPL) for rural ILECs. Costs are calculated on a study-area basis. The NACPL, which is set at $240, is adjusted each year based on the cap in place for the year. An effective NACPL is determined by increasing the NACPL to a level that the claims on the fund equal the cap. HCL Support is then calculated on a sliding scale:

- If the study area cost per loop (SACPL) is ≤ 115% of NACPL, HCL = 0
- If SACPL >115% of NACPL and ≤ 150% of NACPL, HCL = 65% x (SACPL – (115% of NACPL))
- If SACPL > 150% of NACPL, HCL = 75% x (SACPL – (150% of NACPL)) + 65% x (150% of NACPL – 115% of NACPL)

The tapered and partial support mechanism provides incentives for rural ILECs to invest efficiently in network facilities since full cost recovery is not provided by the HCL. Other means are used to calculate support for switching and common line support.

The operation of the high cost funds for wireless ETCs should operate in analogous fashion: The objective is to achieve reasonably comparable rates and services in rural and urban areas where there is an obstacle in the form of high wireless network costs in serving rural areas. As with wireline network costs, these should be the costs of providing the services defined as "universal service." A wireless cost barrier would exist if the cost of providing wireless service throughout a rural study area exceeded the cost to provide wireless service across the nation by a stipulated threshold. Support would be provided above this threshold and should be partial (as with the HCL for rural ILECs) in order to provide incentives to efficiently invest in wireless facilities.

The wireless costs would need to exclude handsets (CPE), as these are owned by the customer in both wireless and wireline services, and in both rural and urban areas.

Wireless costs would also need to recognize sharing of rural facilities with nonrural subscribers (as with roaming services), so that support bears "no more that a reasonable share of the joint and common costs of facilities used to provide those services."[7]

6. The support mechanism for wireless carriers should take account of separations factors reflected in the support mechanism of wireline carriers. The ILEC support mechanisms recognize the effect of separations rules by providing for recovery of a federal share of support while leaving state implicit support mechanisms in place. Interstate Common Line Support (ICLS), for example, is a mechanism that only replaces the implicit interstate common line revenue requirement previously recovered by the ILEC in interstate common line rates. ICLS does not replace implicit intrastate support embedded in state common line rates. Competitive neutrality dictates that any wireless mechanism that is developed limit support to a share of total costs that is comparable to the federal share attributed to the ILEC mechanisms.

7. Study area caps and/or per line support caps are inconsistent with the Act. Western Wireless proposes caps on support to study areas, but the Act requires that universal service support be "sufficient." There is no way to ensure that support will be sufficient when it is received by multiple ETCs in the same high cost area – potentially an average of three wireless ETCs in each rural ILEC serving area.[8] In particular, the sunk costs of the ILEC being the carrier of last resort in a high cost area do not shrink when a wireless ETC receives support.[9] Total support thereby increases upon designation of multiple ETCs in an area. The proper way to curtail the growth of the fund in the presence of multiple ETCs, is to properly determine that (i) the designation of the wireless ETC passes a more stringent public interest test in rural telephone company service areas, and (ii) that the support received is actually required to achieve comparable services at comparable rates in high cost areas.

Summary

The policy platform outline here does not require overhaul of the current system that has successfully provided for comparable rates and services in areas where significant cost barriers would otherwise thwart this objective. It requires no complicated "transition plan" as called for by Western Wireless. It does address the need to reform the universal

[7] Section 254(k).
[8] See FCC, *CMRS Competition Report, Eighth Report*, July 14, 2003
[9] The only reduction in loop costs would be in the drop facilities, and this would only occur if, in fact, the customer totally replaced their wireline service with the wireless service.

service support mechanism to accommodate multiple ETCs and it does address the need to control unwarranted growth of the funds. The policy principles are based on understanding wireless costs to ensure (i) that ETC designation and access to high cost funds are in the public interest; (ii) that high cost support is actually required for wireless carriers to provide universal service where investment costs would otherwise be a barrier to achieving comparable rates; and (iii) that limited high cost funds are not merely spread among multiple carriers, without demonstrable need, but in ways that do not threaten the sufficiency of that support.