

Response to Committee White Paper

The Fixed Wireless Communications Coalition (FWCC)¹ responds to two issues raised by the Committee on Energy and Commerce in its white paper titled, “Modernizing U.S. Spectrum Policy.”

We limit our comments below to fixed, point-to-point microwave services.

- 8. The FCC further promotes efficient use of spectrum through the build-out requirements and operating rules attached to licenses. Build-out rules require licensees to construct and activate infrastructure within a certain timeframe, or risk losing that license. The operating rules require some licensees to return a license if not used for any 12-month period after construction, promoting the active and continual use of spectrum. These provisions help to ensure that spectrum that is not fully utilized becomes available to those who will put it to dynamic use. Should the Act promote competitive and efficient use of spectrum in this way? How effective is the current Act in doing so? How effectively has the FCC used the tools at its disposal to encourage competition?**

The FCC’s build-out requirements are working well for site-based licenses, as in the Committee’s example above. But they are working badly, and indeed are counter-productive, as to licenses that cover geographic areas, especially those awarded by auction.

Unlike broadcast and mobile phone service, fixed, point-to-point communications do not require spectrum exclusivity. Multiple users can usually coordinate non-interfering point-to-point links in the same region using the same spectrum band. Geographic licensing limits use of the spectrum to only one licensee, which usually must attempt to recover its auction costs by selling service to others. Where demand exists, geographic licensing has allowed the licensee and its customers to deploy quickly and efficiently.

The problem with the FCC’s build-out requirements arises with the policies for renewal of geographic licenses in areas where demand is light. To qualify for renewal, after the ten-year license term, the licensee must show it is providing “substantial service,” a term the FCC has not

¹ The FWCC is a coalition of companies, associations, and individuals interested in the fixed service—i.e., in terrestrial fixed microwave communications. Our membership includes manufacturers of microwave equipment, fixed microwave engineering firms, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. The membership also includes railroads, public utilities, petroleum and pipeline entities, public safety agencies, cable TV providers, backhaul providers, and/or their respective associations, communications carriers, and telecommunications attorneys and engineers. Our members build, install, and use both licensed and unlicensed point-to-point, point-to-multipoint, and other fixed wireless systems, in frequency bands from 900 MHz to 95 GHz. For more information, see www.fwcc.us.

clearly defined.² A “safe harbor” allows renewal if the licensee has constructed four point-to-point links per million population in the license area. Where the market is not sufficiently developed, this standard creates a perverse incentive for the licensee to build “links to nowhere” using obsolete and useless equipment merely to preserve its license rights. The spectrum remains functionally unused.

If the licensee lacks enough business to support the four-links-per-million standard, and does not play the game of constructing pointless links, the public-interest consequences are worse. The FCC has canceled hundreds of licenses for non-construction despite, in some cases, substantial investments by licensees to prepare the spectrum for offering service. The FCC has never attempted to re-auction that spectrum. Given the renewal policy history, a rational bidder would be unlikely to offer much.

Rather than incentivize licensees’ efforts to serve the public interest, the present policy produces exactly the result the FCC most wants to avoid: out-of-service spectrum that no one can use.

An update to the Communications Act could remedy these problems:

1. If Congress continues to favor area-wide auctions for fixed service spectrum, then license renewal standards should better evaluate whether spectrum is under development, using criteria calculated to ...

encourage:

- (a) making the spectrum available to the public through leasing and other industry standard spectrum accessibility platforms,
- (b) offers to build commercially viable networks,
- (c) research and & development, and
- (d) ongoing investment until the market reaches commercial viability, and

discourage:

- (a) competitive warehousing, and
- (b) the construction of useless links.

2. To promote construction, a licensee should be allowed to continue operating point-to-point links that have already been built, even if the rest of the license is cancelled.

² Worse, the FCC has defined “substantial service” circularly: “service which is sound, favorable, and substantially above a level of mediocre service which might minimally warrant renewal.” 47 C.F.R. § 101.1011(a). That is, the level of service required for renewal is “substantially above” the level of service required for renewal.

3. After a license is cancelled and beyond all appeals, the affected spectrum should become available for licensing in according to the precepts noted in items 1 and 2 above, and if that is not able to be accomplished, then for shared licensing by anyone.

10. **The other governing body of domestic spectrum use is the National Telecommunications and Information Administration (NTIA), which has the authority to assign spectrum frequencies to all federal government owned or operated radio stations under section 305 of the Communications Act. NTIA manages the federal government’s use of spectrum, in coordination with the FCC. Distinctions between “federal” or “non-federal” bands of spectrum are administrative creations made through agreements between the FCC and NTIA. The Spectrum Act required NTIA to work with the FCC to identify specific bands for release to commercial use and how to repurpose resources from federal to commercial use, with priority given to options that assign spectrum for exclusive, non-federal use through competitive bidding. In a report on reducing duplication in the federal government, GAO identified spectrum management as ‘fragmented’ between NTIA and the FCC and urged coordination. What role should NTIA play in the licensing and management of spectrum? Is their current role appropriate and necessary, given the potentially duplicative functions of the FCC and NTIA in spectrum allocation and assignment?** (citation footnote omitted)

The FWCC believes the FCC and NTIA should maintain their distinct roles, but supports increased harmonization in areas where they currently work independently.

Harmonization of technical requirements. Fixed microwave equipment performance rules are set out by the FCC in Part 101 (for most bands) and by NTIA in its “Manual of Regulations and Procedures for Federal Radio Frequency Management” (Red Book). Some technical requirements vary between the two. For example, the NTIA’s spectrum mask is more stringent than that defined by the FCC. In this example, we believe federal customers could benefit from the higher output power that would be possible if NTIA were to adopt the FCC mask. More generally, harmonization would reduce duplication of work in developing standards within the U.S. government, and improve clarity for equipment vendors who design for both federal and non-federal customers.

Streamlining of radio certification and licensing. The NTIA equivalent of radio certification is far more demanding and time-consuming than the FCC’s process. NTIA requires federal agency sponsorship for radio certifications. Once a federal agency develops a need for a particular radio, the manufacturer provides all the specific transmitter and receiver characteristics for the certification. Historically the process from start (sponsor) to finish (NTIA certification) takes six to twelve months, but in some circumstances can take longer. Once certification is complete, then the specific licensing process can begin. Given the accelerated technology advancements in radio systems, the result is that commercial off-the-shelf radios can be nearing end of life by the time systems are implemented. The delays can thus limit a federal user’s access to the most

current industry-accepted radio platforms. We strongly encourage a review of streamlining between the NTIA and FCC in the areas of equipment certification and licensing.

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April 25, 2014.