Radio frequency spectrum is a natural resource used to provide a variety of communication services, such as mobile voice and data. The popularity of smart phones, tablets, and other wireless devices among consumers, businesses, and government users has increased the demand for spectrum. FCC takes a number of steps to promote efficient and effective use of spectrum. One such step is to establish buildout requirements, which specify that an entity granted a license must begin using the assigned spectrum within a specified amount of time or face penalties, such as loss of the license.

GAO was asked to review buildout requirements and the efficient use of spectrum. This report (1) describes the buildout requirements FCC established for wireless services, (2) assesses the extent to which FCC follows its process to enforce buildout requirements, and (3) examines stakeholder opinions on the extent that commonly cited goals for buildout requirements have been met. GAO reviewed FCC regulations and guidance on buildout requirements and examined FCC license data on outcomes of buildout requirements for 5 out of about 45 wireless services selected to ensure variety in type of use and buildout requirement, among other criteria. GAO also interviewed FCC officials, commercial spectrum licensees, industry associations, and spectrum policy experts.

GAO is making no recommendations in this report. FCC reviewed a draft of this report and provided technical comments that GAO incorporated as appropriate.

What GAO Found

The Federal Communications Commission (FCC) has established buildout requirements—which require a licensee to build the necessary infrastructure and put the assigned spectrum to use within a set amount of time—for most wireless services, including cellular and personal communication services. FCC tailors the buildout requirements it sets for a wireless service based on the physical characteristics of the relevant spectrum and comments of stakeholders, among other factors. Therefore, buildout requirements vary across wireless services. For example, a buildout requirement can set the percentage of a license’s population or geographic area that must be covered by service or can describe the required level of service in narrative terms rather than numeric benchmarks. Buildout requirements also vary by how much time a licensee has to meet a requirement and whether it has to meet one requirement or multiple requirements in stages.

FCC’s enforcement process for wireless-service licenses with buildout requirements primarily relies on information provided by licensees, and FCC followed its process for the five wireless services GAO reviewed. Specifically, FCC requires licensees to self-certify that they have met buildout requirements. If a licensee does not do so, FCC automatically terminates the license. Some stakeholders GAO interviewed said that self-certification is an effective way for FCC to enforce buildout requirements because it is public and transparent. GAO examined FCC license data for five wireless services and found that buildout requirements were met for 75 percent of those licenses, and FCC generally terminated those that did not. As part of enforcement, FCC also grants or dismisses licensees’ requests to extend the deadline for meeting a requirement. FCC may grant an extension if the licensee shows that it cannot meet a deadline due to causes beyond its control, like a lack of available equipment. For the five wireless services examined, GAO found that extensions were requested for 9 percent of licenses, and FCC granted 74 percent of these requests. FCC officials said that the Commission seeks to be aggressive but pragmatic when enforcing buildout requirements, including being flexible on deadlines when needed. Some licensees and industry associations GAO interviewed said that extensions can provide needed flexibility when unexpected problems occur. Some concerns were raised, however, that granting extensions can undermine buildout requirements by creating an impression that they will not be strictly enforced.

Stakeholders GAO interviewed generally said that buildout requirements are effective in meeting two of four goals commonly cited in FCC documents and statute—encouraging licensees to provide services in a timely manner and preventing the warehousing of spectrum. Stakeholders had mixed views on the effectiveness of buildout requirements in meeting two other goals—promoting innovative services and promoting services to rural areas—largely because they believed that other tools could better address these goals. Other tools stakeholders mentioned include greater use of spectrum licenses that allow a wider array of uses and providing licensees with subsidies to serve rural areas. Nearly all the licensees and industry associations GAO interviewed said they support FCC having buildout requirements, while spectrum policy experts GAO interviewed were mixed in their support of the requirements. Experts who did not support buildout requirements said that the requirements are set too weak or that other tools could better meet FCC goals, among other reasons.