

MREDI VHF System Replacement

The majority of BPA's fixed radio equipment is at least 20 years old. The manufacturer no longer supports the system or provides replacement parts. Since there is a lack of available spare parts, two way radio failures may pose significant system reliability and safety risks to the agency.

An additional driver for replacement is a change in frequency allocation. National Telecommunications and Information Administration (NTIA) grants BPA and all other federal agencies licenses to use radio spectrum. BPA currently uses some frequencies that are being recalled. BPA will lose channels 3 and 4 in January 2012. NTIA is also likely to mandate narrow-banding which will require BPA to upgrade the existing analog VHF system. Narrow-banding is necessary to meet new technical standards for receivers to minimize interference and improve efficiency of frequency use. Federal radio systems that do not meet the deadline for narrowband system requirements would revert to secondary status. This means that BPA could lose frequencies to other federal users who would have the required narrowband systems.

The proposed system is an analog over-the-air voice system with a digital control system. As a result, the telecommunications infrastructure will need some upgrades to add capacity. In all cases, those upgrades will be replacing equipment that was scheduled to be replaced within the next 10 years or less, but they have been included in the VHF project so that the project team could control the schedule and coordinate the VHF replacement and the telecommunications infrastructure upgrades more efficiently. In addition to the VHF repeater system, the mobile VHF radios (vehicle based), portable VHF radios (handheld) and base stations (fixed location user radio) are also beyond their expected life cycle and are due to be replaced regardless of the VHF repeater replacement project. The replacement of the radios has been included with the VHF replacement project to ensure that the new radios will be compatible with the new VHF repeaters.

This project is a key component of the Upgrade and Sustain Program strategy for Power Systems Control (PSC) and telecommunications modernization. Because the existing analog two way radio is no longer supported, BPA will only be able to keep the system operational for a limited amount of time.