

**Final Recommendations:
Spectrum Sharing Cost Recovery
Alternatives**

For Presentation at CSMAC Meeting
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NTIA Question

“How should federal agencies be resourced to develop and implement sharing with non-auction licensees or services, such as unlicensed device?”

Participating Members

- Michael Calabrese
- Charla Rath
- Giulia McHenry
- Jennifer Warren
- Janice Obuchowski
- Bryan Tramont
- Mike Chartier
- Harold Fuchtgott-Roth
- Harold Feld

Background

- Commercial Spectrum Enhancement Act (CSEA) authorizes a Spectrum Relocation Fund (SRF) to reimburse Federal agencies for the costs related to clearing and sharing bands reallocated by auction.
- Incentives: Federal agencies have no source of reimbursement for costs related to facilitating band sharing (e.g., unlicensed) or other improvements in spectrum efficiency unrelated to the agency mission.
- CSMAC's Incentive Subcommittee previously recommended broadening the SRF into a type of revolving "Spectrum Efficiency Fund" – as did PCAST.

Background (continued)

- Problem: There are several statutory obstacles to agency cost recovery:
 - Commercial Spectrum Enhancement Act (CSEA) [47 U.S.C. § 923] generally limits reimbursements for “relocation or sharing costs” related to bands that are auctioned.
 - Miscellaneous Receipts Act [31 U.S.C. § 3302(b)] requires any agency “receiving money ... shall deposit that money with the Treasury” – although there are some established exceptions for payments not “received” by the government.
 - Antideficiency Act [31 U.S.C. § 1342] prohibits federal employees from accepting “voluntary services” not authorized by law – although there are certain exceptions for “gratuitous services” (see GAO, B-324214, Jan. 27, 2014).

Informational Meetings

Subcommittee members were informed by a series of meetings with relevant agencies and other experts, including staff from:

- Office Management and Budget, Commerce Division
 - Defense Spectrum Organization, Dept of Defense
 - NTIA, Office Spectrum Management
 - FCC, Wireless Telecommunications Bureau
- and*
- Tom Power, former deputy CTO, OSTP
 - Dorothy Robyn, former head of Public Building Service, General Services Administration (GSA), and former Undersecretary of Defense for Installations and Environment

Recommendation 1

NTIA should request that OMB provide written guidance, for dissemination to other federal agencies –

a) that cost recovery arising from shared access to hybrid bands is CSEA eligible. These are bands that assign private sector access for both auctioned and non-auctioned use, such as bands with a three-tier access model that includes licensed and unlicensed access.

b) that cost recovery related to additional sorts of indirect impacts on non-auctioned frequencies (“domino bands”), with a nexus to an auction, would be CSEA eligible.

– Examples:

- NOAA’s cost recovery for relocation of radiosondes from band just below 1695-1710.
- The consolidation of multiple agency bands, where cost recovery also helps to pay for sharing of a non-auctioned band that FCC decides to open on a non-auctioned basis.

Recommendation 2

NTIA should request that OMB provide written guidance, for dissemination to federal agencies, concerning the degree to which agencies can benefit *indirectly* (no actual transfer of funding or property) from private sector expenditures (e.g., by industry and/or paid from fees pooled by a FCC-authorized band manager) for unfunded R&D, testing, sensing and geolocation database development, or other investments, that could promote spectrum sharing across multiple bands, or in a particular band – and do so without violating the Anti-Deficiency Act.

A continuum of private sector support, and agency benefit from that support, should be considered, including:

- R&D, testing, etc. by private parties that indirectly benefit the agency's effort
 - Deployment of interference-mitigation technologies or mechanisms
 - Shared access to a federal agency spectrum assignment in exchange for use of private sector networks or services
- Recent Examples:
- Industry and DoD partnered to evaluate feasibility of sharing 1755-1850 MHz band. DoD provided personnel and access military bases/installations where a engineering consultant paid for by industry monitored the RF environment.
 - Deployment of sensing network to convert exclusion to coordination zones for purpose of protecting Navy radar in 3.5 GHz band.

Recommendation 3

NTIA should recommend to Congress an amendment to CSEA permitting a limited percentage of the Spectrum Relocation Fund (SRF) balance that exceeds 110% of certified agency costs to be used to reimburse certain qualifying agency costs for general purpose activities (e.g., R&D, testing, sensing or geolocation database development) that advance federal spectrum sharing and spectrum efficiency generally, including potential bi-directional sharing, irrespective of whether the frequency band is related to a specific auctioned band (and hence are not currently CSEA eligible).

Elements of the process proposed to achieve this process could include:

- Agencies (separately or together) initially submit proposals to NTIA, which should remain the coordinating agency
- Proposals must be reviewed and approved by a three-member Technical Panel as established under CSEA (2012)
- OMB must certify the costs are reasonable and comply with CSEA

Recommendation 4

Limited Purpose Exception to Miscellaneous Receipts Act and Anti-Deficiency Act:

a) NTIA should request that OMB provide written guidance, for dissemination to federal agencies, concerning the application of the Miscellaneous Receipts Act and the Anti-Deficiency Act to arrangements involving the FCC and/or private sector entities to offset or recover agency costs, through direct payments or in-kind resources, for the specific purpose of expanding and/or facilitating spectrum band sharing.

b) After reviewing OMB's guidance, and if needed, NTIA should develop and recommend a limited-purpose legislative exception to the Miscellaneous Receipts Act and to the Anti-Deficiency Act that authorizes direct payments or reimbursements to NTIA on behalf of federal agencies (e.g., fees collected by FCC-authorized band manager), or in-kind services (e.g., equipment purchased by industry), that directly benefit federal agencies, to the extent that these payments or services recover, offset or reduce agency costs related to sharing. NTIA should coordinate, review and approve such payments or services in advance on a timely basis.