

**Status Report:  
Spectrum Sharing Cost Recovery  
Alternatives**

For Discussion at CSMAC Meeting

May 12, 2015

# 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

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# 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

# I. Non-Legislative Approaches

## A. Recommendation

**NTIA should seek OMB clarification, for dissemination to other federal agencies –**

1) that cost recovery related to hybrid bands is CSEA eligible. These are bands that assigns 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.

2) 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.

- Example: Already approved is NOAA cost recovery for relocation of radiosondes from band just below 1695-1710
- For example, what about 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.

# I. Non-Legislative Approaches (cont.)

## B. Other Options for Further Consideration

1. **Seek and adopt guidance from OMB** on 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 band manager) for unfunded R&D, testing, sensing and geolocation database development, or other investments, that could promote sharing across multiple bands, or in a particular band – and do so without violating the Anti-Deficiency Act.
- Examples that have been tacitly authorized:
    - 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.
  - There is a continuum of private sector support, and agency benefit from that support, that should be considered:
    - R&D, testing, etc. by private parties that indirectly benefit the agency's effort
    - The agency shares spectrum in exchange for use of private sector networks or services
    - Transfer of actual funding or tangible goods to an agency (e.g., fees collected by FCC-authorized band manager, or equipment purchased by industry)

# I. Non-Legislative Approaches (cont.)

## *Other Potential Options:*

### 2. **Other tools that should be considered (but need further study):**

#### ○ CRADAs

- ❖ CRADA is a cooperative research and development agreement between a [government agency](#) and a [private company](#) or [university](#) to work together on research and development.

#### ○ No-Cost Contracts and “gratuitous services”

- ❖ GAO: “Under such a contract, the agency has no financial obligation and the contractor has no expectation of payment from the government.” (see GAO, B-324214, Jan. 27, 2014).

#### ○ Gifts-in-Kind

- ❖ Permitted for certain agencies, e.g., DoD by statute (see 10 U.S.C. 2608).

# II. Legislative Changes

## A. Recommendation

**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).

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

# II. Legislative Changes (cont.)

## B. Other Options for Further Consideration

1. Consider a new CSEA provision that specifically authorizes cost recovery from the SRF for sharing on *non-auctioned* bands – where users will be unlicensed, licensed-by-rule or public safety, and not for exclusive use.
  - **Alternative Revenue Sources:** Authorize NTIA or the FCC to collect and deposit ongoing fee and/or lease revenue from private sector users into the Spectrum Relocation Fund, with the goal to offset over time agencies' costs to relocate or share with un-auctioned services/users.
  - **Covering Upfront Costs:** The SRF could fund upfront costs of agencies, including for R&D, testing, database development, etc. A problem with amortizing agency costs is that currently OMB must certify the auction revenue will cover 110% of estimated federal costs. Can a revolving fund provision effectively address this timing problem?
2. Recommend a limited-purpose legislative exception to the Miscellaneous Receipts Act and/or the Anti-Deficiency Act that permits direct payments or reimbursements to federal agencies, or in-kind services, that directly benefit federal agencies, to the extent that these payments or services cover costs related to sharing non-auctioned bands.