

GENERAL UPDATE

The Incentives Subcommittee has met three times since the last general CSMAC meeting: June 18, July 7 and July 20. Substantial progress was made in advancing three of the four primary incentive categories outlined in the Subcommittee’s scope of work: Spectrum fees, strengthening the OMB Circular A-11 process (vis-à-vis procurement of spectrum-dependent systems), and creating a special funding source for studies and related activity by Federal agencies/departments that can advance spectrum relocation, band sharing and/or spectrum efficiency.

While the Subcommittee has reached no consensus on spectrum fees, it is putting forward an initial recommendation on rewriting Circular A-11 and on creating a Spectrum Innovation Fund, as reported just below. The Subcommittee will also be moving on to consider secondary market and spectrum leasing incentives. The goal is an initial draft report by the next general CSMAC meeting.

Spectrum Fees

The Subcommittee has not yet reached a consensus on the issue of spectrum fees. There was some support for the concept of a low, flat fee on all spectrum, which could be implemented more easily than a market-rate fee that would be more difficult and controversial to implement. It was noted that this would at least turn spectrum into a more tangible cost item and could be expanded upon in the future (for example, as the U.K.’s administrative pricing system has attempted to move over time toward a market rate). Some held the view that a low flat fee would not have the incentive effects that a rate closer to market rates would have, lessening its potential impact on freeing up or sharing underutilized bands, while still imposing administrative costs. There was some support for the idea of starting at a low, flat fee and transitioning over a long period of time (ten years or more) to more market-based rates so that agencies would have time to plan and adjust capital expenditures accordingly. There was also a view that spectrum fees overall were more oriented on driving agencies to release spectrum, rather than focus on spectrum efficiency/sharing improvements in use of spectrum, and thus was not appropriate.

However, there was substantial criticism of this approach from both members who contend that phasing in a more market-based pricing scheme is needed to internalize true opportunity cost; and also from other members who contend that at least in the Federal sector, spectrum fees will have little or no impact on the behavior we are seeking to impact, and/or are inappropriate considering the societal importance of the Federal mission at stake, particularly among national security and public safety agencies that tend to occupy the largest quantities of spectrum.

The Incentives Subcommittee will revisit this issue one more time – and needs to consider whether to report majority and minority views and rationales on this issue if there is no consensus.

Strengthening the OMB Circular A-11 Process

Existing OMB Circular A-11 seeks to integrate spectrum resources into the capital planning and management process. OMB directs agencies to consider the economic value of spectrum “when developing economic and budget justifications for procurement of these systems. . . . Spectrum should generally not be considered a free resource, but rather should be considered to have value and be included, to the extent practical, in economic analyses of alternative systems.”

To date, the focus of the Circular A-11 process seems to have been on the more difficult aspect of that equation – the capital planning. It may also be easier and perhaps useful to focus on ensuring the agencies/departments give more consideration to spectrum use in their management processes. Doing so will likely yield more measurable and impactful elements for management processes to demonstrate and achieve greater spectrum management and use improvement. With respect to the budget for major spectrum-dependent communications systems that are spectrum dependent, the circular should be rewritten to:

- Require agency/department to indicate whether its Request for Proposal to procure a spectrum-dependent communications-electronic system included requirements for respondents to address spectrum “efficiency” factors (examples: e.g., greater adjacent band compatibility, lesser bandwidth. . .) and assess trade-offs between investment in equipment and spectrum requirements; if not, why not.
- Require agency/department, as the means of considering the economic value of the radio spectrum -- to indicate whether it chose the spectrum “efficient” solution among those bids that met mission/operational requirements, and, if not, indicate the investment difference between the solution chosen and the more spectrum “efficient” qualified solution.
- Require agency/department to indicate whether the system will share spectrum with other existing systems/operations.
- Require agency/department, when replacing systems, to indicate improvements in spectrum “efficiency” and “effectiveness” compared to the prior system.
- Require agency/department to certify consideration of non-spectrum dependent or commercial alternatives to meet mission / operational requirements.

The Incentives Subcommittee will next consider whether and how to put more “teeth” into this reporting process. For example, Circular A-11 currently requires that agencies “must obtain a certification by the NTIA, Department of Commerce that the radio frequency required can be made available before you submit estimates for the development or procurement of major radio spectrum-dependent communication-electronics systems . . .”. One option would be to expand the scope of this certification process to include an assessment of the procuring agency’s spectrum cost-benefit analysis. This kind of additional requirement may be useful to avoid having any reporting requirement become simply an exercise in the generation of unread paper. The recent experience of OMB in redrafting memorandum M-10-15, “FY 2010 Reporting Instructions for the Federal Information Security Management Act and Agency Privacy Management,” which grew out of criticisms that agency reporting was essentially useless, may be suggestive of the kind of approach necessary for this idea to work.

Spectrum Innovation Fund (SIF)

The Subcommittee has not yet reached a consensus on the issue of a spectrum innovation fund. There is general agreement that federal spectrum use enables effective national security, transportation safety, and other vital government functions that must be preserved while we promote continued innovation in spectrum use. There has been little in terms of resources made available by Congress or NTIA to support such proposals, let alone support any such initiatives initiated by a federal agency/department. Specifically, a significant challenge associated with studying spectrum sharing, reallocation, or alternative technology solutions within federal agencies/departments is the lack of a targeted budget. For fundamental shifts in domestic spectrum policy to be successful – including the promotion of innovation in spectrum management – new strategies and processes based upon technical, regulatory, and policy studies are needed.

To ensure the availability of funds for research, testing, evaluation and planning dedicated to high potential opportunities for improving spectrum efficiency, a Spectrum Innovation Fund should be created within, NTIA/Department of Commerce. The fund's resources would not only be used in response to Congressional or administration identification of federal bands for potential auction or reallocation, but also for band sharing and for other opportunities to improve spectrum efficiency identified for exploration by the federal agencies/users. These funds should be maintained at an annual level of [\$10-50?] million and would include funding for NTIA to manage the fund distribution and lead federal spectrum management into a new era.

Irrespective of funding source, the federal agency, when seeking to initiate a spectrum study, would submit a formal request to NTIA for funding. The funding tiers associated with requests and caps would be defined by implementing language and would vary depending upon the scope of the study. NTIA would review the request and have the authority to distribute the funds, monitor progress, and assess the results. If the study is driven by a congressional/administration or NTIA inquiry, the agency will automatically qualify for funding in an amount to be determined by NTIA but subject to any cap or other conditions.

The Spectrum Innovation Fund would not be used to purchase new systems, but to fund studies, evaluation, and testing to advance new spectrum sharing/efficiency opportunities. The results of these studies, evaluation and testing can be used to inform decisions regarding acquisition or upgrade of spectrum-dependent systems.

The Incentives Subcommittee will next explore the potential use of the SIF to fund, upon application, federal agency proposals to implement modifications to existing spectrum-dependent systems that would yield improvements in sharing capabilities, without disrupting the mission. It will also discuss the source of new funding. Given the budget constraints currently faced by the Federal government, and the Congressional concerns over deficits, we recognize that any new funding is problematic. An ill-defined innovation fund in particular could face considerable opposition, despite its purpose. Thus, the Incentives Subcommittee will also explore, for example, whether the Fund could conceivably be self-funding and sustainable, through a variety of mechanisms.