

Advanced Spectrum Policy Course Lecture 4: FCC Rulemaking Process Fall 2025

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Advanced Spectrum Policy

- I. Introduction
- 2. Lecture I NRAO Panel Discussion
- 3. Lecture 2 Federal Spectrum Policy
- 4. Lecture 3 FCC and NTIA and OSTP
- 5. Lecture 4 FCC Rulemaking Process
- 6. Lecture 5 Congressional Involvement in Spectrum Policy
- 7. Lecture 6 International Spectrum Policy
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Lecture 4: FCC Rulemaking Process

- 4.1. FCC Rulemaking Process
 - 4.1.1. Administrative Procedure Act (APA)
 - 4.1.2. Starting a Rulemaking
 - 4.1.3. Judicial Review of Agency Rulemaking
- 4.2. Filing Comments
 - 4.2.1. Drafting and Submitting a Comment
 - 4.2.2. Preparing Effective Comments
- 4.3. In the News
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- 4.1. FCC Rulemaking Process
- 4.1.1. Administrative Procedure Act
- 4.1.2. Starting a Rulemaking
- 4.1.3. Judicial Review of Agency Rulemaking





4.1.1. Administrative Procedure Act (APA)

5 USC PART I, CHAPTER 5, SUBCHAPTER II: ADMINISTRATIVE PROCEDURE

From Title 5—GOVERNMENT ORGANIZATION AND EMPLOYEES

PART I—THE AGENCIES GENERALLY
CHAPTER 5—ADMINISTRATIVE PROCEDURE

SUBCHAPTER II—ADMINISTRATIVE PROCEDURE

STATUTORY NOTES AND RELATED SUBSIDIARIES

SHORT TITLE

The provisions of this subchapter and chapter 7 of this title were originally enacted by act June 11, 1946, ch. 324, 60 Stat. 237, popularly known as the "Administrative Procedure Act". That Act was repealed as part of the general revision of this title by Pub. L. 89–554 and its provisions incorporated into this subchapter and chapter 7 hereof.

§551. Definitions

For the purpose of this subchapter—

- (1) "agency" means each authority of the Government of the United States, whether or not it is within or subject to review by another agency, but does not include—
 - (A) the Congress;
 - (B) the courts of the United States;
 - (C) the governments of the territories or possessions of the United States;
 - (D) the government of the District of Columbia;

or except as to the requirements of section 552 of this title-

- (E) agencies composed of representatives of the parties or of representatives of organizations of the parties to the disputes determined by them;
 - (F) courts martial and military commissions;
 - (G) military authority exercised in the field in time of war or in occupied territory; or
- (H) functions conferred by sections 1738, 1739, 1743, and 1744 of title 12; subchapter II of chapter 471 of title 49; or sections 1884, 1891–1902, and former section 1641(b)(2), of title 50, appendix; ¹

See generally 5 U.S.C. §§ 551-59, 701-06 (2012).





4.1.2. Starting a Rulemaking

ISART 2022 Tutorial Series #1: Current U.S. Regulatory Process to Establish Spectrum Sharing ...more



NTIA,
Overview of
the FCC's
Rulemaking
Process,
https://www.youtube.com/watch?v=LHRKw
fDbw18&t=1s







Presented by Suzanne Tetrault

4.1.3. Judicial Review of Agency Rulemaking

A Brief Overview of Rulemaking and Judicial Review

Judicial Review of Agency Rulemaking

As a general matter, there is a "strong presumption that Congress intends judicial review of administrative action." This presumption is embodied in the APA, which provides that "final agency action for which there is no other adequate remedy in a court [is] subject to judicial review." The APA excludes judicial review in two situations—instances where (1) other "statutes preclude judicial review" or (2) "agency action is committed to agency discretion by law." ¹²⁰

The APA provides that courts may hold unlawful and set aside agency actions under a number of circumstances. ¹²¹ Specifically, the APA states the following:

The reviewing court shall ... hold unlawful and set aside agency action, findings, and conclusions found to be -

- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
- (B) contrary to constitutional right, power, privilege, or immunity;
- (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
- (D) without observance of procedure required by law;
- (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title
- or otherwise reviewed on the record of an agency hearing provided by statute; or
- (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.
- In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.¹²²

This provision indicates that the type of judicial review may differ depending on whether the court is reviewing formal or informal rulemakings. Specifically, cases subject to § 556 and § 557 are subject to "substantial evidence" review, whereas other agency actions are subject to "arbitrary and capricious" review. ¹²³ Congress has sometimes, however, required informal, notice-and-comment rulemakings to be reviewed under the substantial evidence test. ¹²⁴ However, some have argued that the two standards are the same, and commentators have stated that "the

Congressional Research Service, "A Brief Overview of Rulemaking and Judicial Review," Mar. 27, 2017, CRS Report No. R41546, at p. 13, https://www.congress.g ov/crs_external_product s/R/PDF/R41546/R41546. 13.pdf.







4.1.3. Judicial Review of Agency Rulemaking

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued January 25, 2022

Decided August 12, 2022

No. 21-1130

INTELLIGENT TRANSPORTATION SOCIETY OF AMERICA AND AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS,

PETITIONERS

v.

FEDERAL COMMUNICATIONS COMMISSION AND UNITED STATES OF AMERICA,
RESPONDENTS

CONTINENTAL AUTOMOTIVE SYSTEMS, INC., D/B/A CONTINENTAL AUTOMOTIVE SYSTEMS, ET AL., INTERVENORS

Consolidated with 21-1131, 21-1141

On Petitions for Review and Appeal of an Order of the Federal Communications Commission

Intelligent
Transportation Society of
America v. FCC, No.
21-1130, Aug. 12, 2022,
https://media.cadc.usco
urts.gov/opinions/docs/
2022/08/21-1130-19590
69.pdf





4.1.3. Judicial Review of Agency Rulemaking



Home / General Counsel

Archive of Major Court Cases of the FCC

- Huawei Tech. v. FCC, No. 19-60896 (5th Cir.)
- United States Telecom Association, No. 15-1063 (D.C. Cir.)
- City of Arlington v. FCC, No. 11-1545 (Sup. Ct.)
- In Re: FCC 11-161, No. 11-9900 (10th Cir.)
- Verizon v. FCC, No. 11-1355 (D.C. Cir.)
- FCC v. Fox Television Stations, Inc., No. 10-1293 (Supreme Court)
- FCC v. AT&T, Inc., No. 09-1279 (Supreme Court)
- Fox Television Stations, Inc., et al. v. FCC, No 06-1760-ag(L) (2nd Cir.)
- Prometheus Radio Project v. FCC, No. 08-3078 (3rd Cir.)

FCC, Archive of Major Court Cases of the FCC, https://www.fcc.gov/archive-major-court-cases-fcc.



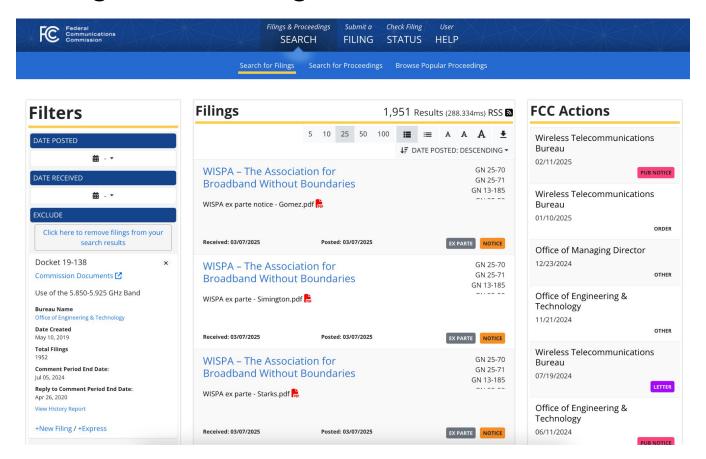


- 4.2. Filing Comments
- 4.2.1. Drafting and Submitting a Comment
- 4.2.2. Preparing Effective Comments









ECFS Docket No. 19-138 from the 5.9 GHz Order,

https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2219-138%22))



June 7, 2024

Mr. Ronald T. Repasi Chief, Office of Engineering and Technology (OET) Federal Communications Commission 45 L Street, NE Washington, DC 20554

Mr. Joel Taubenblatt Chief, Wireless Telecommunications Bureau (WTB) Federal Communications Commission 45 L Street, NE Washington, DC 20554

Re: Use of the 5.850-5.925 GHz Band ET Docket No. 19-138

Dear Messrs. Repasi and Taubenblatt:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch and consistent with its responsibility to ensure that the views of the Executive Branch are effectively presented to the Commission, 1 provides this additional information in response to the Further Notice of Proposed Rulemaking (FNPRM) in the above-captioned proceeding. 2 The Intelligent Transportation System holds the important promise of improving

NTIA Letter Filed with the FCC in the 5.9 GHz Order, https://www.fcc.gov/ecfs/search/search-filings/filing/1060767641685







ITS AMERICA

July 5, 2024

Ronald T. Repasi Chief, Office of Engineering and Technology Federal Communications Commission 45 L Street NE Washington, DC 20554

Re: Use of the 5.850-5.925 GHz Band; ET Docket No. 19-138, DA 24-538

Introduction

The Intelligent Transportation Society of America (ITS America) is grateful for the opportunity to comment on the Federal Communication Commission's (FCC) proposed rule regarding the use of geofencing in cellular-vehicle-to-everything (C-V2X) on-board units to reduce out-of-band emission power limits around specified federal radiolocation services. As the nation's leading advocate for the technological modernization of our transportation system by focusing on advancing research and deployment of intelligent transportation technology, ITS America works to make transportation safer, greener, and smarter for all.

ITS America was founded in 1991 as an advisory council to USDOT on technology innovation and emerging transportation technologies. ITS America is the only organization in the country that represents all sectors – public, private, academic, and nonprofit – to advance transportation technology. Our membership includes state and city departments of transportation, transit agencies, metropolitan planning organizations, automotive manufacturers, technology companies, engineering firms, automotive suppliers, insurance companies, and research and academic universities. Our vision is one of a better future transformed by transportation technology and innovation and our work accelerates the deployment of technology that saves lives, promotes sustainability, and advances more equitable transportation.

Intelligent
Transportation
Society Filing with
the FCC in the 5.9
GHz Order,
https://www.fcc.g
ov/ecfs/search/se
arch-filings/filing/1
0706717221155















July 5, 2024

Via ECFS

Marlene Dortch Secretary Federal Communications Commission 45 L Street NE Washington, DC 20554

Re: Use of the 5.850-5.925 GHz Band - ET Docket No. 19-138

Dear Secretary Dortch:

The 5G Automotive Association ("5GAA"), the American Association of State Highway and Transportation Officials ("AASHTO"), the Institute of Transportation Engineers ("ITE"), and the Wireless Infrastructure Association ("WIA"), leading associations of public and commercial interests that represent the automotive industry, infrastructure owner-operators, and wireless technology companies in the deployment of Cellular Vehicle-to-Everything ("C-V2X") technology to provide transformative roadway safety improvements, hereby respond to the FCC's Public Notice seeking further comment on C-V2X On-Board Unit ("OBU") power levels.

As explained below, our associations support the recommendations from the National Telecommunications and Information Administration ("NTIA") to protect federal radiolocation systems in the 5.9 GHz band by allowing OBUs to use geofencing to enable operations above the power levels the FCC authorized under waiver authority.²

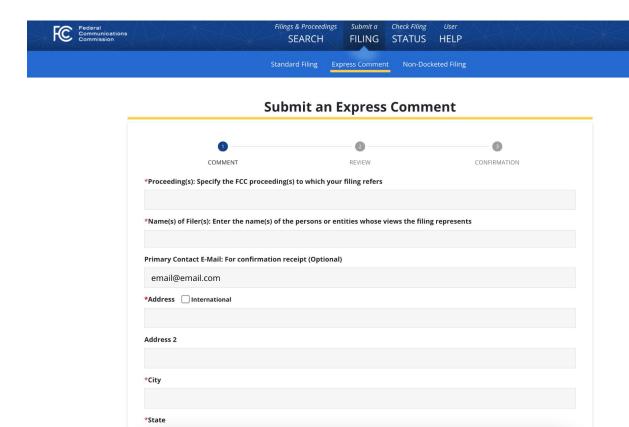
The FCC Should Adopt Rules Allowing OBUs Equipped with Geofencing Technology to Transmit with Up to 33 dBm EIRP Within ± 5 Degrees of the Horizontal Plane. NTIA has stated that OBUs without geofencing technology can operate with up to 33 dBm EIRP above 5 degrees elevation and with up to 27 dBm EIRP within ± 5 degrees of the horizontal in the upper 20 MHz channel in the Intelligent Transportation Services ("ITS") band (i.e., 5905-5925).

5G Automotive Association Letter filed with FCC in the 5.9 GHz Order,

https://www.fcc.gov/ecfs/search/search-filings/filing/107050745008634

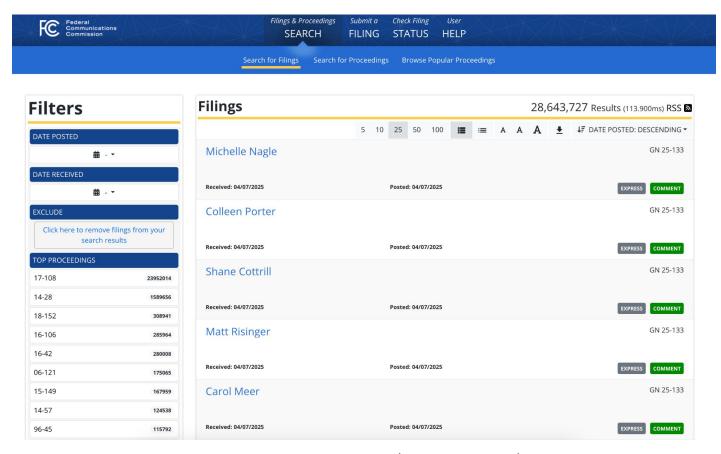






ECFS Express Comment Submission Form, FCC, "Submit an Express Comment," https://www.fcc.gov/ecfs/filings/express





Express Comments in the 5.9 GHz Order,

https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2219-138%22))





4.2.2. Preparing Effective Comments



How do I prepare effective comments?

We encourage you to challenge our and other commenters' factual assumptions; applications of data and research; analytical methodologies; analysis; or factual, technical, and policy conclusions. We want you to suggest reasonable alternatives to our proposals and to the proposals of other commenters.

The following list is intended to provide helpful suggestions on how to make your comments more effective and more useful to us in crafting a well reasoned decision that is likely to be upheld by the courts. Except for the requirement that the docket number be placed on any comments, the following suggestions are not mandatory requirements.

- a. **Docket ID.** You must identify the docket number for the rulemaking document on which you are commenting so that the Commission and other members of the public can place and find it in the correct file. The docket number is provided near the very top of the NPRM.
- b. Typewritten documents. We prefer typewritten and word-processed documents; otherwise the reviewer may not be able read your handwriting. We do not require this, however, because we recognize that not everyone may have access to a typewriter or computer.
- c. **Electronic submissions.** We prefer that comments be submitted electronically. We recognize that everyone does not have easy Internet access, so we do not require electronic submission.
- d. Agency questions. We want your comments on any part of the proposal on which you wish to comment. However, we almost always ask questions or raise issues in rulemaking proposals on subjects where we especially need more information. Please answer those questions if you have useful information on them.

FCC, Rulemaking Process, FAQs, https://www.fcc.gov/about-fcc/rulemaking-process





4.2.2. Preparing Effective Comments

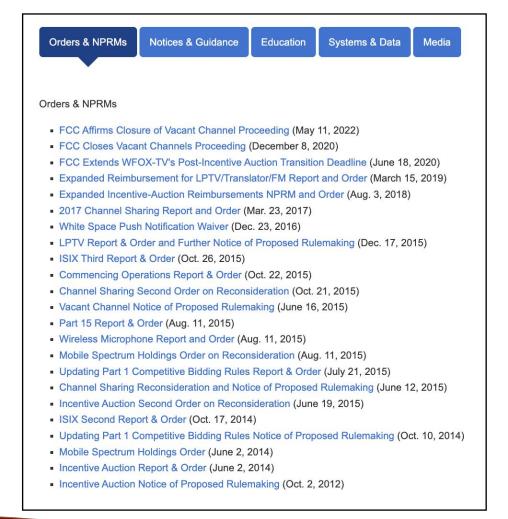
- e. Organized comments. It is helpful if you organize your comments by the specific headings or by specific sections in the NPRM. This will help the public and the agency review the comments more easily and effectively.
- f. Clear explanation and support for views. You should explain your views and reasoning as clearly as possible; provide the basis for your assumptions; and provide supporting evidence or data, wherever possible, to support your views. By supporting your arguments, you are more likely to persuade us to accept them. If you do not, and we do not have separate data to support your submission, we cannot rely on it since we are required to provide the basis for our final decisions.
- g. Alternatives. If you disagree with a proposed rule, you should provide specific alternatives to help us ensure that, if we agree with your concerns, we can effectively implement your suggestions. In addition, you should provide an analysis of how your alternative(s) would better serve the public interest than our proposal.
- h. **Examples of concerns**. You should provide specific examples to illustrate your concerns. Real world examples or possibilities can help us better understand those concerns.
- i. Statutory limitations. In preparing your comments, you should consider the requirements and limitations of the statutory authority under which the Commission is making its proposal. You may be objecting to a proposal over which the agency has no discretion; the agency may be required to issue a final rule with that provision. You may also be proposing an alternative that the agency has no authority to implement.

FCC, Rulemaking Process, FAQs, https://www.fcc.gov/about-fcc/rulemaking-process





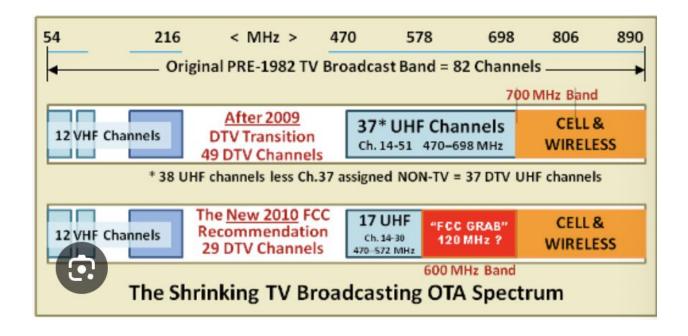




FCC, Broadcast Incentive Auction,
https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions/resources.







TV Broadcast Over-the-Air Spectrum Bands,

https://stopthecap.com/2012/09/11/fcc-prepares-to-sacrifice-free-over-the-air -uhf-tv-channels-for-lucrative-wireless-auctions/







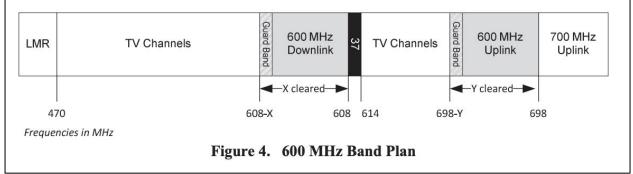
https://en.wikipedia.org/wiki/Coupon-eligible_converter_box

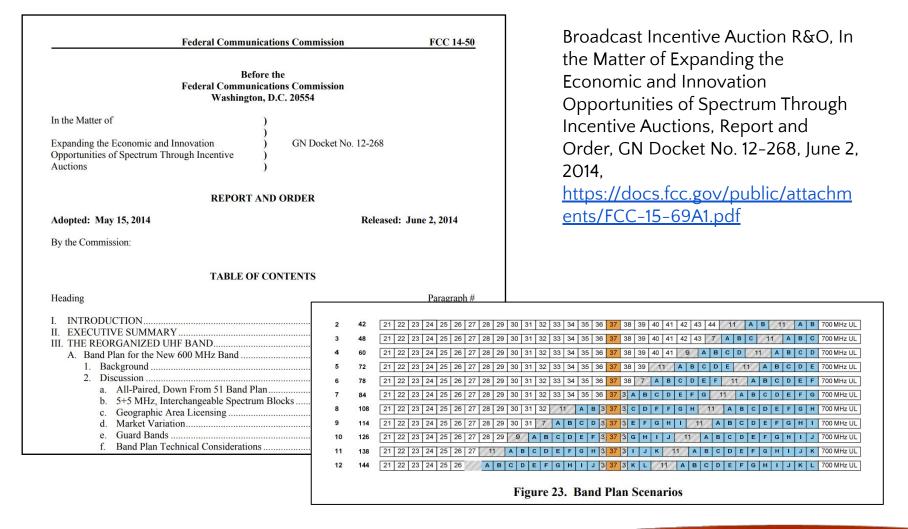






Broadcast Incentive Auction NPRM, In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Notice of Proposed Rulemaking, GN Docket No. 12–268, October 2, 2012, https://docs.fcc.gov/public/attachm ents/FCC-12-118A1.pdf







FCC, Incentive Auctions, Transition Schedule, https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions/transition-schedule.





APPENDIX D

Commenter Short Names

Short name	Name of Filer		
4 NY Broadcasters	American Broadcasting Companies, Inc., WBNG License, Inc.		
	United Communications		
4G Americas	4G Americas		
A. Weiss	Adrienne Weiss		
ACTBN	Action Community Television Broadcasting Network, Inc.		
Affiliates Associations	ABC Television Affiliates Association, CBS Television Network Affiliates Association		
AIC	Azteca International Corporation		
Alcatel-Lucent	Alcatel-Lucent		
Alcatel-Lucent et al.	Alcatel-Lucent, AT&T, Ericsson, Intel, NAB, Qualcomm and VZ		
American Tower	American Tower Corporation		
Anon. Broadcaster 1	Anonymous Broadcast Licensees		
Anon. Broadcaster 2	Prospective Reverse Auction Participant		
Anon. Broadcaster 3	Broadcaster for the Promotion of Channel Sharing		
50 V2 100 V30 V30 V30 V30 V30 V30 V30 V30 V30 V	Arrangements		
Anon. Broadcaster 4	Broadcast Licensee		
Anon. Citizen	Anonymous		
Anon. Part 90	Blooston Part 90 Licensees		
APTS [see joint comments PTV]	Association of Public Television Stations		
ASHE	American Society for Healthcare Engineering		
AT&T	AT&T, Inc. or AT&T Services, Inc.		
ATBA	Advanced Television Broadcasting Alliance		
Atlantic Telephone	Atlantic Telephone Membership Corporation		
B. Kobb	Bennett Z. Kobb		
Bahakel	Bahakel Communications, Ltd.		
Belo	Belo Corp.		
Block Stations	Lima Communications, Corp./Independence Television Company/WAND TV Partnership/Idaho Independent		

Broadcast Incentive Auction R&O, In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, GN Docket No. 12–268, June 2, 2014.

https://docs.fcc.gov/public/attachments/FCC-15-69A1.pdf







The incentive auction includes a reverse auction — *Auction 1001* — in which broadcasters will offer to voluntarily relinquish some or all of their spectrum usage rights, and a forward auction — *Auction 1002* — of new, flexible-use licenses suitable for providing mobile broadband services.

Reverse Auction

Auction 1001

Relinquishing Broadcast Spectrum Usage Rights

Forward Auction

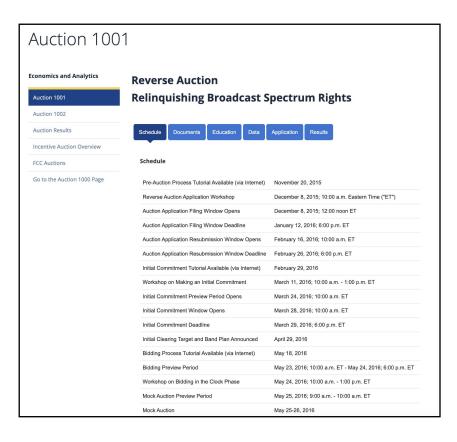
Auction 1002

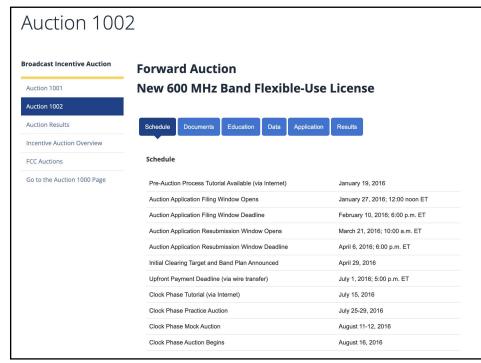
New 600 MHz Band Flexible-Use Licenses

FCC, Auction 1000, https://www.fcc.gov/auction/1000









FCC, Auction 1001, https://www.fcc.gov/auction/1001, https://www.fcc.gov/auction/1002





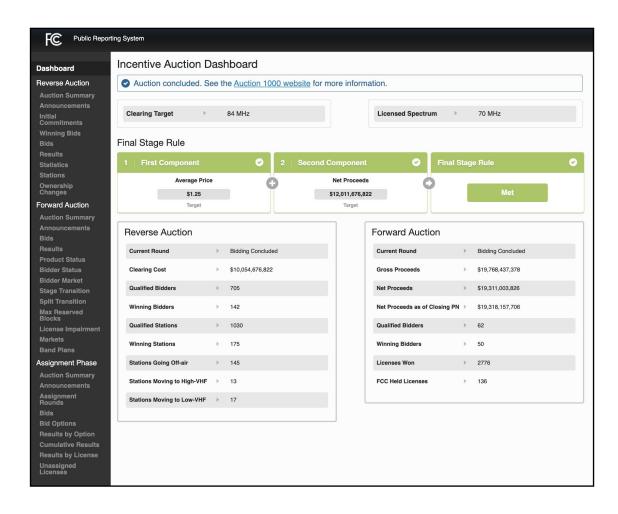
Table 1: Bid options for UHF stations

		Currently Held Option		
		Go off-air	Move to Low-VHF	Move to High-VHF
	BIDDING	Available Options:	Available Options:	Available Options:
		1. Go off-air	1. Move to Low-VHF	1. Move to High-VHF
		+ (Optional) Proxy Bid Instruction: Continue bidding to Go off-air until the price drops below\$	+ (Optional) Proxy Bid Instruction: Continue bidding to move to Low-VHF until the price drops below \$	+ (Optional) Proxy Bid Instruction: Continue bidding to move to High- VHF until the price drops below \$
		2. Move to Low-VHF	2. Move to High-VHF	2. Drop out of bidding
Status		+ Fallback bid: Go off-air; or Drop out of bidding	+ Fallback Bid: Move to Low-VHF; or Drop out of bidding	
St		3. Move to High-VHF	3. Drop out of bidding	
		+ Fallback Bid: Go off-air; or Drop out of bidding		
		4. Drop out of bidding		
	FROZEN – Pending Catch Up	(Optional) Proxy Bid Instruction: Continue bidding to Go off-air until the price drops below \$	(Optional) Proxy Bid Instruction: Continue bidding to Move to Low-VHF until the price drops below \$	(Optional) Proxy Bid Instruction: Continue bidding to Move to High-VHF until the price drops below \$

Power Auctions, Reverse Auction Clock Phase User Guide, at A4–1, https://www.fcc.gov/file/3797/download







FCC Auction Reporting System, Auction 1001 and 1002.

https://auctiondata.fcc.g ov/public/projects/1000.





4.3. In the News



Lorenzo Franceschi-Bicchierai, "More Than 80% Of All Net Neutrality Comments Were Sent By Bots Researchers Say," Vice Media, October 3, 2017,

https://www.vice.com/en/article/80-percent-net-neutrality-comments-bots-astroturfing/







4.4. In the News



Scott Wallsten, "AI May Soon Weigh In on Regulation", Wall St. J., Oct. 24, 2023, https://www.wsj.com/opinion/ai-may-soon-weigh-in-on-regulation-artificial-intelligence-agencies-public-comment-periods-766436ec.





4.5. Assignment

Read the Broadcast Incentive Auction NPRM (2012) and Report and Order (2014) to see the rulemaking process for one of the largest spectrum auctions held by the FCC which involved hundreds of interested parties and comments.

- Broadcast Incentive Auction NPRM, In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Notice of Proposed Rulemaking, GN Docket No. 12-268, October 2, 2012,
 - https://docs.fcc.gov/public/attachments/FCC-12-118A1.pdf.
- Broadcast Incentive Auction R&O, In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, GN Docket No. 12-268, June 2, 2014, https://docs.fcc.gov/public/attachments/FCC-15-69A1.pdf.





4.6. Learning Objectives

Understand the FCC rulemaking process under the Administrative Procedure Act, including how rules are proposed, reviewed, and challenged. Learn how to draft, submit, and evaluate effective public comments to influence spectrum-related policy decisions.







www.nrao.edu science.nrao.edu public.nrao.edu

The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc.







