



# REGULATORY ABCs

TELERGEE CONFERENCE  
MAY 2017

CHAD DUVAL, PARTNER, MOSS ADAMS  
[CHAD.DUVAL@MOSSADAMS.COM](mailto:CHAD.DUVAL@MOSSADAMS.COM)  
209-955-6124

**MOSS ADAMS**<sub>LLP</sub>  
Certified Public Accountants | Business Consultants



Telereg Alliance  
Regulatory ABCs

CAF PHASE II

Drone  
Regulation

600 MHz  
&  
3.5 GHz  
Citizens Band

Mobility Fund  
Phase II



Carri Bennet [cbennet@bennetlaw.com](mailto:cbennet@bennetlaw.com)

Daryl Zakov [dzakov@bennetlaw.com](mailto:dzakov@bennetlaw.com)

202.371.1500

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# Regulatory ABCs

- A little different view of recent regulatory topics
- Alphabetical Order
- Acronyms where possible
- High level, 2-minute overview of each
- Questions after each topic, if any
- Fastest 90 minutes on telecom regulation!

# AALPI

- Annual Allowed Loop Plant Investment
  - End result of the Capital Investment Allowance
  - Maximum amount of annual loop plant investment allowed for USF cost recovery
  - Total Loop Plant Investment
    - Historical investment adjusted for inflation
  - Loop Depreciation Factor
    - Loop Depreciation Reserve / Loop Investment
  - $AALPI = \text{Loop Depreciation Factor} * 15\% + 5\%$
  - Adjusted based on existing broadband deployment
    - Compared to National Average (% for % ↑/↓)
  - Applies to both HCLS & CAF BLS

# A-CAM

- **Alternative Connect America Cost Model**
  - Forward looking economic cost model for RoR carriers
  - Created by CostQuest as authorized by USAC
  - Estimates the cost of building and operating a FTTH broadband network
  - Utilizes price cap investment and NECA expense assumptions
  - Use was optional for RoR carriers
  - Support is fixed for 10-years
  - 262 statewide holding companies
  - \$200M in additional annual support

# Alcohol

- FNPRM included a list of costs that are not permitted in USF
  - October 2015 Public Notice
    - Personal Expenses/Travel
    - Alcohol
    - Charitable Contributions
    - Fines & Penalties
    - Membership Fees & Dues
    - Sponsorships
    - Non-Taxable Gifts

# BCM

- Budget Control Mechanism
  - Support reductions designed to maintain USF budget
  - Total Demand – Total Budget = Budget Control
    - 1/1/17 – 6/30/17: 90.9%
    - 7/1/17 – 6/30/18: 87.6%
  - Pro rata split between HCLS & CAF BLS
    - BCM for CAF BLS recovered from interstate rates
    - BCM for HCLS recovered from intrastate rates
  - 50% per line/50% pro rata
  - HCLS also has a stand alone budget control due to application of Rural Growth Factor
    - Pro Rata Adjustment Factor



# Benchmark Rate

- Benchmark Rate
  - Applies to Consumer Broadband Only Loop service
  - Rate above which CAF BLS support is provided
  - Set at \$42.00
    - Local Rate Floor: \$16.00 at the time
    - 4X SLC Rate (100% SPF):  $\$6.50 * 4 = \$26.00$

# Buildout Obligations

- Buildout Obligations
  - All A-CAM recipients have buildout obligations
    - Defined in locations with new broadband deployment
    - Based on whether a census block is fully or partially funded
    - Weighted based on location density
    - 25/3 Mbps / 10/1 Mbps / 4/1 Mbps
  - CAF BLS recipients below 80% 10/1 Mbps buildout
    - Defined in locations with new broadband deployment
    - % of projected 5-year CAF BLS
    - Weighted based on % buildout
    - Divided by average cost per location

# CACM

- Connect America Cost Model
  - Forward looking economic cost model designed for Price Cap carriers
  - Created by CostQuest as authorized by USAC
  - Estimates the cost of building and operating a FTTH broadband network
  - Utilizes price cap investment and NECA expense assumptions
  - Basis of CAF II funding for Price Cap carriers
  - Parent model of the A-CAM

# + CAF II

## ■ Connect America Fund Phase II

- \$2 Billion Over 10 Years
- Unserved Census Blocks Preliminary [list](#) of eligible census blocks are those located in price cap carrier territories that:
  - (1) are not served by the incumbent price cap carrier or an unsubsidized competitor with voice and broadband at speeds of 10/1 Mbps or higher and
  - (2) that fall into one of the following groups:
    - High-cost census blocks located in areas where price cap carriers declined the offer of Phase II model-based support;
    - Certain census blocks nationwide that were not included in the offer of Phase II model-based support; and
    - Census blocks that were eligible for Phase II model-based support but later identified by the accepting price cap carrier that they would not serve such blocks.
- No Tribal Lands Preference or Bidding Credit
- Minimum 10/1 Mbps Broadband Speeds
- 6 Year Buildout: 40%/year 3; 60%/year 4; 80%/year 5; 100%/year 6

# + CAF II

## ■ Reverse Auction Format

- Bidders Compete Based on Preset Performance Level, Usage Allowances and Latency Categories.
- Bidder Must Offer Service Meeting FCC Criteria But Free To Offer Other Plans As Well
- Weighting Formula Allows FCC to Compare Apples and Oranges
- FCC Preferences:
  - Higher Speeds > Lower Speeds
  - Higher Usage Allowance > Lower Usage Allowance
  - Lower Latency > Higher Latency

# + CAF II

## ■ Applicant Qualifications

- Applicant or Wholly-Owned Subsidiary Must Have
  - Provided Voice, Broadband and/or Electric Distribution or Transmission Service for at Least 2 Years
  - Have audited financials or pay \$50,000
- All Required FCC Forms 477 Must Have Been Filed for This Period
- Wireless Applicants Must
  - Demonstrate License or Spectrum Access (*i.e.*, Lease) for all Fixed Locations
  - Certify That Access to Spectrum is Good for 10 Years From Date of Funding Authorization
- Applicant Must Demonstrate ETC Designation From FCC or State in Application or Within 180 Days From Down payment

# + CBRS



- Citizens Broadband Radio Services: 3.5 GHz
  - FCC established new CBRS for commercial wireless broadband uses (2015)
  - Spans 150 megahertz in the 3550-3700 MHz band (includes 50 megahertz of 3.65 GHz spectrum).
  - New rules were adopted under Part 96 of the FCC's rules to:
    1. support important national defense missions by *protecting incumbent radar systems* from interference;
    2. make *additional spectrum available for flexible wireless broadband use*, leading to improved broadband access and performance for consumers; and
    3. promote wireless broadband deployment in *industrial applications* (e.g., advanced manufacturing, energy, healthcare, etc. )
  - CBRS Alliance
    - Evangelize LTE-based CBRS technology, use cases and business opportunities
    - Drive technology developments necessary to fulfill the mission, including multi-operator LTE capabilities
    - Establish an effective product certification program for LTE equipment in the US 3.5 GHz band ensuring multi-vendor interoperability

# + CBRS

## ■ Three Tiers of CBRS

- Three-tiered spectrum authorization framework to accommodate commercial uses on a shared basis with incumbent federal and non-federal uses:
  1. **Incumbent Access** users receive the *highest priority* protection by way of exclusion zones around their known locations. (government stuff)
  2. Otherwise, **Priority Access Licenses (PALs)** will be auctioned off in 10 MHz band allocations per census tract for three-year periods, though no PAL auction timeframe has been announced. The first PAL auction will provide up to two consecutive three-year terms.
  3. **General Authorized Access (GAA)** users will be able to operate on a “license light” basis provided that the transmitter checks with a central SAS database or transmits in areas that are not allocated or occupied.

**All current 3.65 GHz licenses set to expire April 2020!**



# CIA

- Capital Investment Allowance

- Maximum annual investment allowed in loop plant
- Following components make up the CIA
  - AALPI
  - Broadband Deployment AALPI Adjustment
  - Maximum Average Per Location Construction Project Loop Plant Investment Limitation
  - Loop Cap Adjustment Factor (applied if support > \$250/line/month)
  - Construction Limit Factor
    - Company Specific Loop Investment per location / National Average for Rate of Return Carriers
  - Excess Loop Plant Investment Carry Forward
  - Minimum AALPI (\$4M or Total Loop Plant Investment)

# Common Carriage vs. Private Carriage

- **Common Carriage**
  - Wholesale transmission service
    - Switched & Special Access, including Broadband
  - Tariffed or De-Tariffed
  - Offered to all providers on a non-discriminatory basis
  - Costs are regulated and supported
  - Subject to FUSC
- **Private Carriage**
  - Offered only to affiliate
  - No tariff required
  - Costs are regulated but not supported
  - Not subject to FUSC

# Competitive Overlap

- Competitive Overlap

- Census blocks served by a Qualifying Competitor are not eligible for certain support
  - A-CAM
  - CAF BLS
- Subject to Competitive Challenge process
  - A-CAM complete
  - CAF BLS pending in 2017
- CAF BLS Competitive Overlap will be subject to Disaggregation
  - May reduce the amount of support lost
  - Reductions in support will be phased in depending on % reduction

# Competitive Challenge

- Competitive Challenge (CAF BLS)
  - Competitors must prove that they meet the requirements of a Qualifying Competitor
  - FCC to publish a list of census blocks preliminarily deemed as competitive
    - 85%+ availability of supported services
  - Two Phase Challenge Process
    - Competitor must certify and provide evidence of the availability of service
    - Incumbent will have the opportunity to rebut

# CBOL

- Consumer Broadband Only Loop service
  - Data Only DSL/Broadband
  - Naked DSL
  - Standalone DSL/Broadband
- Costs assigned to Interstate Common Line
  - Loop Cost @ 100% Interstate SPF (surrogate)
  - Actual Data Only Revenue Requirement
- Rate = (Benchmark Rate + Broadband BCM) / CBOL Lines

# Disaggregation

- Recognizes that competitive areas are likely to be lower cost than non-competitive areas
- Reduces the impact of Competitive Overlap
- Choice of 3 methods to reduce the impact of Competitive Overlap on CAF BLS
  - Ratio of competitive/non-competitive square miles in study area
  - Relative density of competitive and non-competitive areas
  - Ratio of A-CAM support in competitive areas/support in study area

# Discontinuance

- Discontinuing the provision of broadband transmission (Voice/Data or CBOL) on a wholesale basis
- Company offers Internet access on a retail basis, directly to the end user
- Retail broadband is not currently subject to assessment of the Federal Universal Service Charge
- Cost is no longer supported through HCLS or CAF BLS
  - A-CAM is not based on actual costs, so no impact

# Eligible Census Blocks

- Census blocks in the A-CAM that met certain parameters
  - Not served by a Qualifying Competitor
  - Not served by the ILEC via FTTH or Cable Modem
  - Costs exceed funding benchmark of \$52.50



# Excess Loop Plant Investment

- Investment above the AALPI, which is not allowed in the current year USF cost recovery
- Carried forward to future years where actual loop plant investment is  $<$  AALPI
- Investment is placed into service and depreciated
- Requires documentation of investment, depreciation reserve, and depreciation expense

# Fully Funded Census Blocks

- Census blocks in the A-CAM that met certain parameters
  - Eligible Census Block
  - Costs per location in the census block > \$52.50
  - Cost per location in the census block < \$252.50

# HUBB

- High Cost Universal Broadband
- USAC online portal used for reporting broadband deployment
  - A-CAM carriers
  - Alaska Plan carriers
  - CAF BLS carriers (< 80% 10/1 Mbps deployment)
  - CAF II carriers
  - Rural Broadband Experiment carriers
- A-CAM carriers required to report all deployment
  - New locations (after 1/1/17) by 3/1/18
  - Existing locations (prior to 1/1/17) by 3/1/19
- CAF BLS carriers required to report new deployment
  - New locations (after 5/25/16) by 3/1/18

# Lifeline Modernization Order

- 2016 Order that reformed the Lifeline program
- 6 year transition of support from voice to broadband
- Maintains \$9.25 monthly household subsidy
- Voice remains eligible for support as part of a voice & broadband bundle
- Established a National Eligibility Verifier to confirm subscriber eligibility
  - Reduced cost and remove provider manipulation of eligibility
- Established streamlined ETC procedures for Lifeline Broadband Providers
- Annual budget of \$2.25B

# Local Rate Floor

- FCC established the Local Rate Floor in 2012
- Adjusts by the lesser of \$2.00 & Urban Rate Survey
- Reduces HCLS for rates below the rate floor
- Currently \$18.00, going to \$20.00 on July 1, 2017
- FCC released an NPRM on 4/25/17
  - Freeze the Local Rate Floor at \$18.00
  - Consider elimination of the Local Rate Floor rule

# Location

- U.S. census definition
  - House, apartment, mobile home, trailer, room, or group of rooms
  - Occupied as a separate living quarters
  - If vacant, intended for occupancy as a separate living quarters
- Business locations based on service
  - Small business that would purchase consumer grade broadband
  - Large businesses and anchor institutions are not counted
- Service must be available to be turned up in 10 business days
- Primarily used for HUBB reporting
- Not currently defined for Maximum Average Per Location Construction Project Loop Plant Investment Limitation

# MAPLCPLPIL

- Maximum Average Per Location Construction Project Loop Plant Investment Limitation
  - Measured on a per Project per location basis
  - Company specific investment amount based on company loop investment compared to all RoR carriers
    - $\$10,000 * \text{GDP-CPI} * \text{Loop Cap Adjustment} * \text{Construction Limit Factor}$
  - Applies to investment after the effective date of the rule (4/25/16)
  - Maintain documentation to demonstrate compliance

# + MF II

## ■ Mobility Fund Phase II

- Budget: Annual budget of \$453 million for 10-year term.
- Disbursement Mechanism: Nationwide, multi-round reverse auction.
- Geographic Areas Eligible for Support:
  - Eligible areas include any portion of a census block not fully covered by unsubsidized 4G LTE with a minimum advertised download speed of 5 Mbps based on Form 477 data.
    - Reconsideration being sought so that 10/1 Mbps buildout is used.
  - Square mile coverage metric (rather than pops or road miles).
  - Minimum geographic bidding area will be census block groups or census tracts containing one or more census blocks with eligible areas.
  - FCC will employ a challenge process to vet areas initially determined to be ineligible. Details of this process TBD.



# + MF II

## ■ Construction Benchmarks

- FCC will require winning bidders to demonstrate coverage of at least:
  - 40% of the supported area by 3 years after the starting point \*;
  - 60% by 3 years after the starting point;
  - 80% by 5 years after the starting point; and
  - 85% by 6 years after the starting point across all areas for which they receive MFII support in a state.
  - final benchmark, every census block group or census tract in a state (depending on minimum bidding unit) must also be at least 75% covered
- \* Starting point is 6 months from the first day of the month that follows the month auction closes.
- Significant compliance reporting data requirements will mirror those for challenge process.
- Access to spectrum capable of the appropriate service level in the areas served for 10 years.
- ETC Designation permitted to be obtained within 180 days of public notice identifying winners.
- No small business or rural service provider bidding credits.
- Letter of Credit:
  - All winning bidders must provide the FCC with an irrevocable standby letter of credit by an acceptable bank.
  - Must also provide an opinion letter from legal counsel re: bankruptcy protection for LOC.

# Net Neutrality

- 2015 Order established rules for ISP conduct
- Reclassified retail broadband Internet access (Discontinuance) as a Title II telecommunications service
  - Light touch regulatory treatment
  - Forbearance from utility-style regulations, including rates & FUSC
- No blocking, throttling or paid prioritization
- ISPs may engage in reasonable network management
- Likely to be repealed in the very near future

# OpEx Limitation

- Regression based limitation on operating expenses
- 2 Variables: Total Housing Units & Density of Housing Units
- Regression Coefficients based on 2014 cost study data
- Includes all expenses except: Depreciation & Taxes
- Applies to both HCLS & CAF BLS
  - HCLS = 47 Companies
  - CAF BLS = 51 Companies
- Implemented 1/1/17
- Limitation fixed until changed by FCC
  - No inflationary factor applied

# Privacy Order (Broadband)

- 2016 Order that extended CPNI-like requirement on broadband
  - Would have become effective 3/2/17
  - FCC granted a temporary stay
- Chairman Pai opposed because rules are not consistent with FTC privacy framework
- FCC and FTC to work together to harmonize rules

# Project

- “Project” is not defined in the context of MAPLCPLPIL
- What is a project?
  - Annual Investment
  - Work Order
  - Exchange
  - Loan Design
  - 5-Year Plan
  - Other?
- Make sure you document your definition of a project, and maintain consistency

# Qualifying Competitor

- Facilities based provider of qualifying services
  - Qualifying Facilities
    - Fiber/Copper
    - Cable
    - Fixed Wireless
  - Qualifying Services
    - Voice
    - 10/1+ Mbps Broadband
    - Number Portability
    - Latency
    - Usage Requirements
- Service to 85%+ locations in the census block
- Subject to Competitive Challenge

# Reasonable Comparability Benchmark

- Both voice and broadband must be offered at or below the Reasonable Comparability Benchmark
- 2 standard deviations above the national average
  - Voice = \$49.51 (2017)
  - Broadband (10/1 Mbps) = \$77.98
    - Only 1 offering must meet the benchmark
- If rates are not reasonably comparable, then must provide explanation to USAC

# Reasonable Request

- Request to expand facilities to provide qualifying broadband service
- Request is reasonable if revenues generated exceed the cost of expanding facilities
  - Revenues = all sources
  - Cost = revenue requirement
- Service available within 10 business days of request
  - Customer must meet aid to construction requirements



# Reverse Auction

- Regulatory game of “Name That Tune”
- Lowest bid wins
- Single or multiple round auction
- Historically used to auction spectrum & now USF support

# RoR Represcription

- The Rate of Return is reset (represcribed) from time to time
- RoR was last set at 11.25% in 1991
  - Had been 12.00%
- Rate of Return Reform Order represcribed RoR at 9.75%
  - 6-year transition
  - 25 basis point adjustment each July 1<sup>st</sup> until 2021
- Applies to all Interstate rate making and USF



# 600 MHz



## ■ Broadcast Incentive Auction

### ■ Broadcast Reverse Auction

- \$10.05 Billion in broadcaster proceeds.
- 84 megahertz cleared by reverse auction process.
- 175 Winning Stations (*i.e.* received auction proceeds).
- \$304M – Largest individual station payout. (WWTO, Trinity Christian, Chicago, IL).
- \$194M – Largest non-commercial station payout. (WNJN, New Jersey Public Broadcasting).
- 30 Band-changing winners (moving to Low or High VHF); 36 Winning Stations receiving more than \$100M; 11 NCE stations winning more than \$100M.

### ■ Forward Auction

- 70 megahertz of new spectrum (7 Blocks; 10 megahertz each).
- 50 rural telephone companies participated; 15% rural service bidding credit.
- \$19.8B Gross Revenues/\$19.3B Net Revenues (2<sup>nd</sup> Largest in FCC auction history).
- Top 5 Buyers: T-Mobile (\$7.993B), Dish Network (\$6.211B), Comcast (\$1.724B), AT&T (\$910M) and Channel 51 (\$858M). No Verizon. No Sprint.
- T-Mobile Seeding 600 MHz devices with LTE Band by end of year.
- \$1.31 Average Price per MHz-POP for licenses sold in Top 40 PEAs. \$0.93 Average Price per MHz-POP for licenses sold Nationwide.
- 50 Winning Bidders; 23 Winning Bidders with Rural Bidding Credits; 15 Winning Bidders Seeking Small Business Bidding Credits.

# + Unmanned Aerial Vehicles (UAVs/Drones)

- Major commercial applications:
  - Tower and Utilities Inspections, Entertainment, Sports, Film, Real Estate, Agriculture, Surveying and Public Safety...all being done today.
  - Drone delivery on the horizon!
  - Tremendous cost savings on Labor and Insurance.
- Major FAA Regulation Changes in September 2016. Commercial Drone operations now require:
  - Part 107 Commercial Pilot License.
  - Drone Registration.
- No autonomous flights; VLOS mandatory, Numerous FAA restrictions and regulations.
- Other legal issues: Federal/State/Local Jurisdiction (Ordinances, NPS/BLM/Military, Public vs. Private land access, Privacy, Cybersecurity, and Accident/Liability/Insurance.

# USF Budget (High Cost)

- RoR budget is currently approximately \$2.2B
  - \$2B in legacy support + \$200M in A-CAM support
- FCC had previously indicated that budget would not be reconsidered until at least 2017
- FCC & Congress being pushed to increase RoR budget
  - Discussions with Congress over flowing infrastructure stimulus funding through High Cost Support
  - Possibility that FCC will be supportive

# + USF Contribution Reform

- Current method burdens only telecommunications carrier
- USF fund is \$10 billion annually all in
- Insufficient
- Costs consumers on average \$4.00 per month
- Needs Reform
- Edge Providers
- Convenience Fee – 1 cent per financial transaction



Questions?

Thank You!

# Financial Choice Act

- John Klatt – Lakeland Communications (WI)