Agenda

- TV Broadcast Site Overview
- Incentive Auction and Repack Industry Challenges
- Pre Repack Planning Goals, Preparation & Resourcing
- Pre Repack Planning and Implementation Stakeholder
- Pre Repack Preparation Hurdles
- Complex Site Examples
ATC TV Transmission Facility Overview

• 153 towers with at least one full power/Class A TV
• 73 towers of which have multiple full power/Class A TV
• 65 “Complex” sites (Candelabra, Mountaintop, Broadband Antenna)
• 328 Full Power and Class A tower leases

› Site Considerations:
› Tower structural capacity
› Antenna configurations
› Tower rigging
› RF Exposure
› Collateral tenant impact
› Transmitter building space
› Mechanicals
› Geotechnical
› Zoning/Permitting
› Regulatory
91 DMAs with ATC Broadcast Facilities

Most larger markets have multiple ATC broadcast towers.
Auction and Repack Industry Challenges

- **Time**
  - Channel allocations unknown until after end of Incentive Auction
  - 39-month window to accomplish regulatory approval, new channel build and old channel off the air

- **Existing Leases**
  - Complex and lengthy tower lease negotiations anticipated third party facility owners and TV Licensees – Equipment, term length, rates

- **Resources**
  - Lack of internal resources to manage repack process and projects
  - Lack of external resources - riggers, structural, modifications and RF equipment shortage

- **Capital**
  - Reimbursable CapEx (FCC)
  - Non-reimbursable CapEx

- **Business Continuity**
  - Major disruption to TV broadcasters and other tower tenants
ATC Pre Repack Planning Goals

- **Speed to market** – Position to meet the FCC 39 month deadline
- **Operational ease** – ATC manages entire process, reduces complexity, delivers highest level of service
- **Minimize OTA downtime** - Lessen off-air for all tower tenants
- **Turnkey offers** – Propose complete, end-to-end solutions
- **Future-proof solutions** – Runway to next-gen broadcast standards
- **Transmission redundancy** – Pre and post re-pack back up site solutions
- **Technical superiority** – Unmatched expertise
- **Industry leadership** – Trusted “Go-to” partner, Broadcast team with single focus on broadcast customer and towers
Pre Auction/Repack Preparation

- Synchronization
  - Meeting with all TV tenants to generate and coordinate pre channel allocation construction/modification plans between all impacted parties.

- Contractual Review
  - Parties engage in tower lease negotiations pre-auction for likely repack scenarios.

- Technical Solutions
  - Offerings to include broadband antenna solutions for main and auxiliary transmission adaptable to both current and new channels, possibly purchase and deployment of broadband antenna systems prior to channel allocations.

- Materials and Sourcing Plan
  - Developing pre-repack plans with:
    - RF equipment manufacturers
    - Top line broadcast tower riggers
    - Structural engineering and tower fabrication facilities
  - System prior to channel allocations

- Pre Channel Allocation Negotiations
  - Parties engage in tower lease negotiations pre-channels allocation
  - Coordination/Modification plans between all impacted parties
ATC Repack Internal Resourcing

Additional resources required to manage the repack
Pre Repack Preparation Hurdles

- TV stations acceptance of ATC proposed technical repack solution
- TV stations acceptance of ATC proposed business terms
- ATC tower and site infrastructure capacities to support additional loading and RF equipment
- ATC willingness to commit to additional personnel to manage repack planning and implementation at risk
- ATC willingness to commit CapEx for site infrastructure and master antenna upgrades at risk
- FCC reimbursement program challenges to third party transmission facility owners
- FCC reimbursement program not covering non repack entities impacted by repack
- FCC reimbursement eligibility period does not start until after Incentive Auction is over and channel allocations are known
Complex Site – Candelabra

Candelabra Site

- 3 full power UHFs Ch. 28-36
- 1 full power VHF Ch. 10
- All TV single frequency antennas
- Broadband master FM antenna with 5 full power FM stations in aperture of TV antennas on candelabra
- Stacked TV and FM antenna possibly impacted by repack work
- RF power downs required by TV and FM stations for any work on the candelabra
- Special rigging and construction methods required for any work on the candelabra
Complex Site - Mountaintop

Mountaintop Site
- Six full power UHFs Ch. 18-42
- All single frequency antennas
- No physical tower space available for auxiliary or new channel antennas
- RF power downs required for any work on the tower
- Limited site access
- Minimal construction staging area
Complex Site – Master Antenna

**Master TV Antenna Site**

- 4 full power UHFs in the upper UHF band operating from a broadband master antenna
- Broadband master antenna designed for upper UHF band will have to be replaced
- Single frequency antenna stacked on top of master antenna
- Very limited tower space for temporary antenna during master antenna replacement
- Very limited building and mountaintop site infrastructure for temporary equipment
- RF power downs required by TV and FM stations on other towers close by
- Special rigging and construction methods required for master antenna work
Thank You

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