FCC – TV Incentive Auction

American Tower Pre Auction Planning

September 29, 2015

AMERICAN TOWER®

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

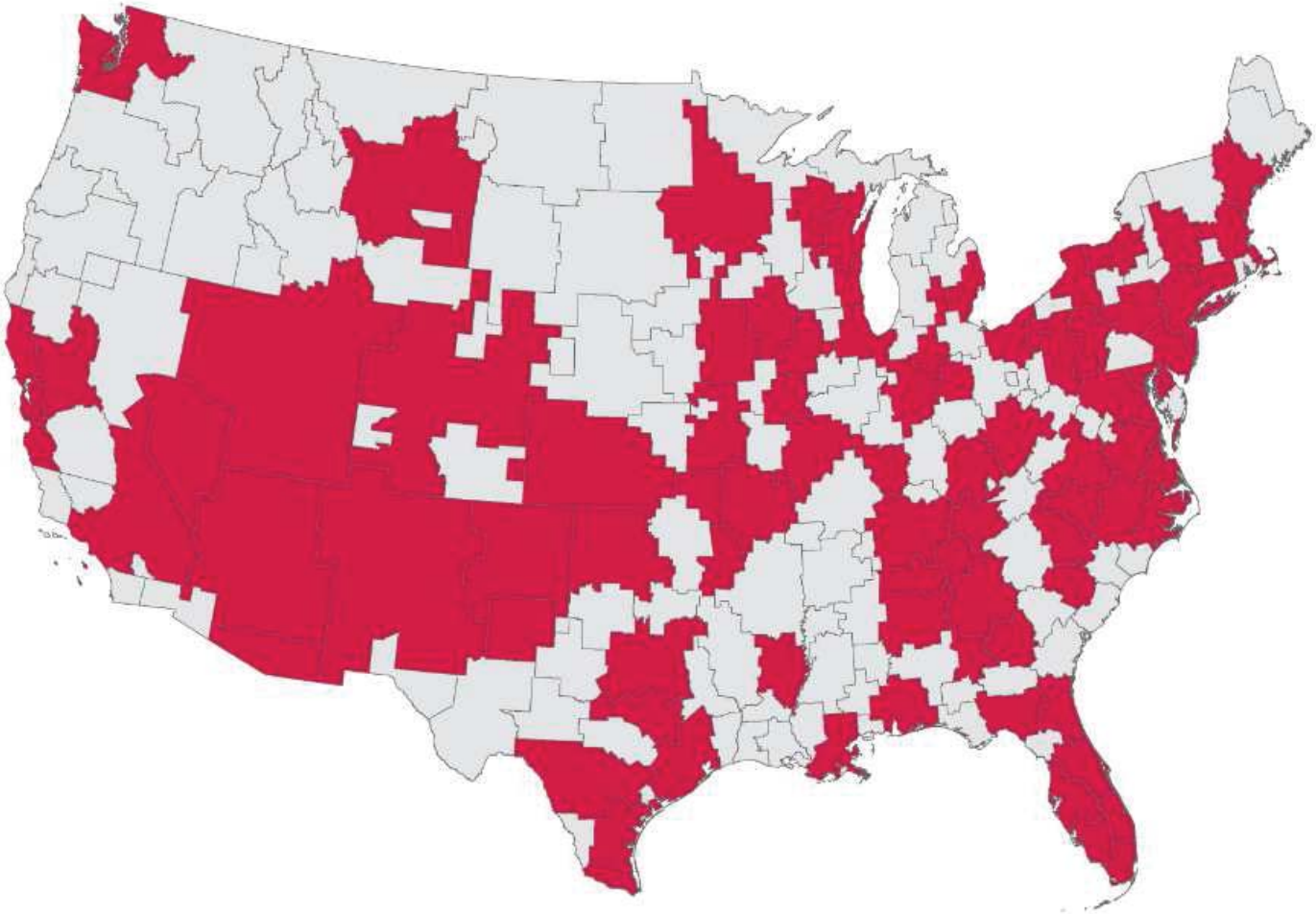
- 153 towers with at least one full power/Class A TV
- 73 towers of which have multiple full power/Class A TV
- 65 “Complex” sites (Candelabra, Mountaintop, Broadband Antenna)
- 328 Full Power and Class A tower leases

› **Site Considerations:**

› Tower structural capacity
› Antenna configurations
› Tower rigging
› RF Exposure
› Collateral tenant impact
› Transmitter building space
› Mechanicals
› Geotechnical
› Zoning/Permitting
› Regulatory

Complex TV Broadcast Facilities

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

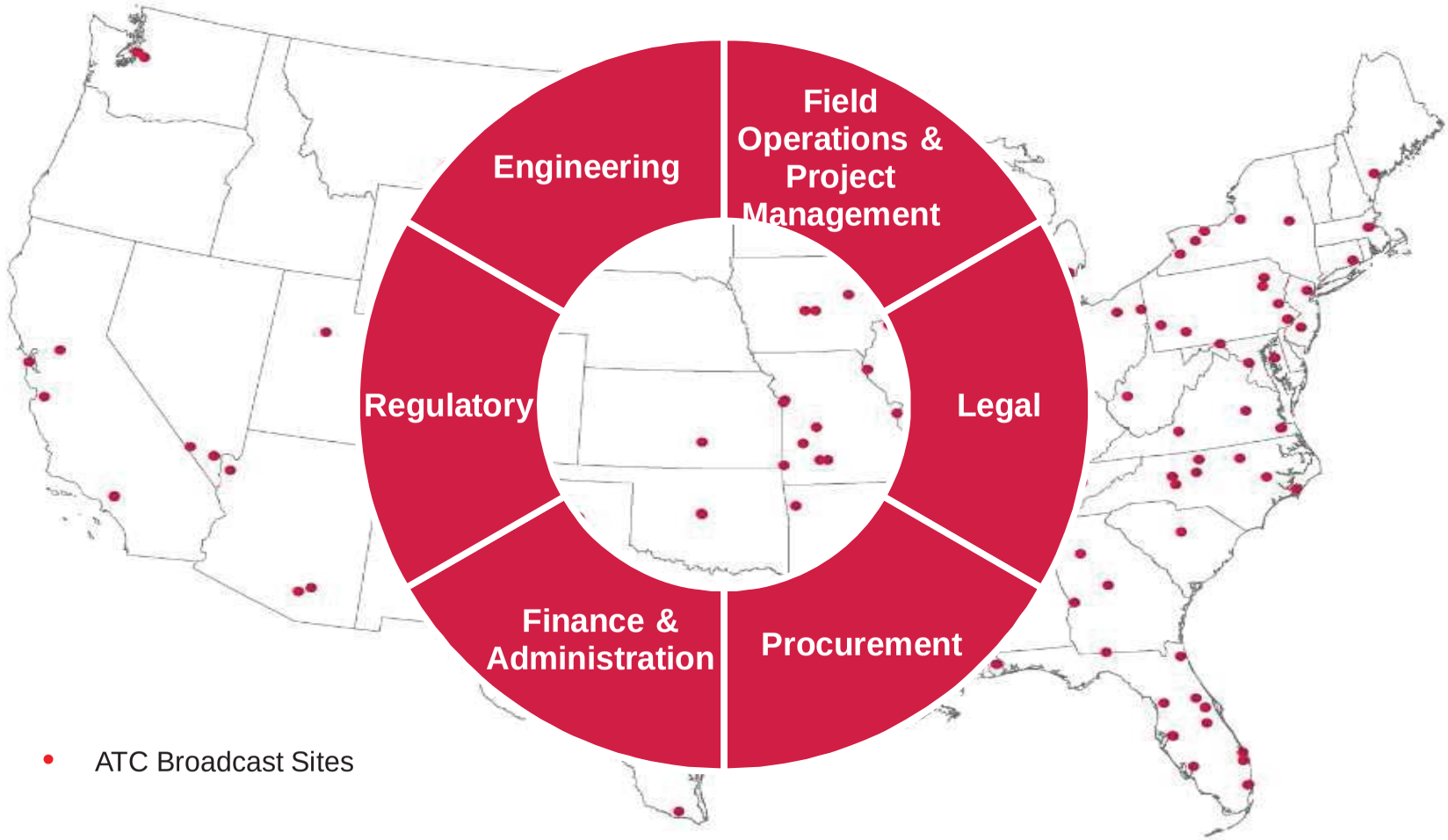
ATC Pre Repack Planning Goals

- ***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….possible purchase and deployment of broadband antenna system 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

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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