



**5G Wireless ROW Access
& Pole Attachment Regulation**

Presentation to IRWA

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Overview

- Small Cell Antenna Attachments
- Storm Restoration Proceeding
- FCC's August 2018 Pole Attachment Order
- Going Forward

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Small Cell Deployments

Consumers are driving the need for massive communication density

- The communications assets required for broadband deployments and smart communities are anticipated to be numerous compared to macro sites.
- The assets follow population and require an intersection of:
 - Open air, electric power, and fiber backhaul.
 - Poles infrastructure helps communications infrastructure achieve scale, speed, and cost.
 - Significant cost/revenue is at risk for all.
- Utility infrastructure – particularly pole networks – key to broadband deployments.

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Small Cell Deployments

- Different From Macro Cell Tower Sites
- Low Power and Limited Range (10 – several hundred meters)
- Increases Overall Capacity
- “Densification” Using Small Cells Key to 5G Wireless
- FCC Predicts 455,000 by 2020, Nearly 800,000 by 2026

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H.R. 2741 LIFT America Act

- The bill would:
 - Provide \$40 billion, over 5 years, to deploy broadband
 - Provide grants for grid security and modernization including “hardening or enhanced protection of poles, wiring, cabling...”
 - NCTA commends “its attention to significant disparities in rates for pole attachments that thwart deployment and fair competition.”

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Typical Small Cell Deployment

- Fiber Attached to Every Pole
- Wireless Backhaul?
- Every 6-15 Poles – “Node” Pole:
 - Antenna
 - 2.5 Foot Cabinet
 - Wire Connecting Cabinet to Antenna
 - Electric Distribution Panel
 - Electric Meter
 - Work Light

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Small Cell Map

The diagram shows a city map with several small cell locations marked. A callout provides a detailed view of a 'Remote Location - Node' which includes an Antenna, Fiber Optic Cable, Equipment Box, and Power Meter. Another callout indicates that a 'Hub Location contains Head End Equipment'.

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Small Cell Equipment

The photograph shows a utility pole with several pieces of equipment. Labels identify the 'Omni Antenna', 'Radio Unit', 'UE Relay/wireless backhaul', and 'AC Distribution'.

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AT&T on a Utility Pole

The photograph shows a utility pole with AT&T equipment. Two callouts provide dimensions: 'UMTS Radio & Antenna (11.6\"/>

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Crown Castle in Princeton, NJ



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Crown Castle in Franklin Village, MI



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Crown Castle Pole in Broward Cty, FL



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Sprint in Detroit, MI



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Crown Castle on Utility Poles



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Crown Castle Pole Multi-Carrier



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Cable Wi-Fi



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Strand-Mounted Cable Wi-Fi



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Small Cell Legislation (States)

- Legislation Enacted in 25 States (so far)
- Makes it Faster and Less Expensive to Access Local ROWs
- Limits Local Gov't Review Time and ROW Access Fees
- Some Set Attachment Rates to Muni Poles, Including Muni Streetlight-only Poles
- Most Allow Wireless Companies to Install Own Poles

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Alabama SB 264

- Establish procedure for wireless providers to install small wireless facilities on “existing poles” of the state/agency/county/municipality.
- Exempt small wireless providers from certain zoning review/approvals procedures.
- Establish a procedures for permitting of the development of small wireless facilities and poles in ROW of the State.
- Establish rates and fees for all permits for small wireless facilities.
- Exempts “terms of the pole attachment agreement between a wireless provider and an investor-owned utility.”

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FCC Power Grab

- FCC Small Cell Order (September 2018)
 - Affects state and local governments
 - “Shot clocks” for review
 - Limits fees for review (\$100/collocated pole; \$1000/new pole)
 - Limits annual fees for access to poles and ROWs (\$270/year)
 - Provides guidance on aesthetics and undergrounding
 - On appeal in 9th Circuit (San Francisco)

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2019 FCC Storm Restoration Proceeding

- How can utilities coordinate with wireless companies to improve storm restoration?
- Utility response - telcos should:
 - devote more resources to EOCs
 - harden existing networks
 - tag their fiber lines
 - pay fair share to maintain pole plant
- “Cheaper and faster is counterproductive to resiliency”

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Storm Damage



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FCC Issues Storm Report

- Examines what went right and what went wrong.
- Found 3 key factors:
 - Insufficiently resilient backhaul connectivity
 - Inadequate roaming agreements
 - Lack of coordination and cooperation between wireless providers, utilities and debris clearance crews.
- Key recommendations:
 - Communications providers should participate in training with state EOCs and NARUC
 - FCC should increase coordination with FERC
 - Communications providers should enter into coordination agreements with power companies for mutual preparation and restoration.

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Pole Attachment Act

- 47 U.S.C. Section 224
- Effective Unless a State “Reverse Preempts”
 - FCC Regulation in 30 states
 - State Regulation in 20 (incl. MI) & D.C.
- FCC Regulations Often Followed by States

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Pole Attachment Act

- Applies to Attachments by:
 - Cable Systems
 - Telecommunications Providers
- Wireless Telecom Qualifies
- Non-discriminatory Access to Poles, Ducts, Conduits and Rights-of-Way
- Regulated Rates, Terms and Conditions
- Can Deny Access for Capacity, Safety, Reliability & Engineering Reasons

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Poles Covered

- Distribution Poles
- Street Light-Only Poles?
- Street Light Arms?
- Transmission Towers?
 - w/Distribution Underbuild?

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FCC's April 7, 2011 Order

- Make-Ready Deadlines
- Asserts Jurisdiction Over Joint Use Relationship
- Affirms Wireless Attachment Rights
- Lowers Telecom Attachment Rate
- Lengthens Refund Period
- Other Operational Requirements

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FCC's August 3, 2018 Order

- Effective May 20, 2019
- Make-Ready Deadlines Tweaked
- Expanded, Detailed Self-Help Remedies if Fail to Meet Make-Ready Deadlines
- One-Touch Make-Ready
- Attachers Have More Discretion to Hire Contractors

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FCC's August 3, 2018 Order (cont'd)

- Joint Ride Outs
- Detailed Pole-by-Pole Make-Ready Estimates and Final Bills Upon Request
- 15 Days Advance Notice for Overlashing
- New Attachers Not Responsible for Correcting Pre-existing Violations
- ILECs Presumed to Get "New" Telecom Rate – Old Rate is Cap

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Make-Ready Deadlines

- Survey – 45 Days (60 for Larger)
- Make-Ready Estimate – 14 Days
- Communications Space Construction – 30 Days (75 for Larger)
- Electric Space Construction – 90 Days (135 for Larger)
 - Additional 15 Days if Utility Elects to Perform
- Can These Deadlines Be Met?

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Utility-Approved Contractor Lists

- Required for:
 - Survey and “Complex” Make-Ready in Communications Space
 - Survey and Electric Space Make-Ready
- Optional but Encouraged for:
 - One-Touch Make-Ready

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Attacher Contractors

- Attachers May Propose They Hire Their Own Contractors If:
 - No Utility List
 - Contractors on List Unavailable
- Utility May Veto Proposed Contractor:
 - If Survey Contractor – Within 3 Biz Days
 - If Construction Contractor – Within 15 Days
- If Veto Contractor, Must Propose Another One

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Attacher Contractors (cont'd)

- Utility May Not Veto Contractor If Contractor Meets:
 - Five Specific Criteria Identified in the Order
 - Utility-Specified Safety and Reliability Requirements

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Attacher Contractors (cont'd)

- Electric Space Contractor Cannot Do Pole Change-Outs or Service Outages
- Union Issues?
- What About ILEC Poles?

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One-Touch Make-Ready

- For "Simple" Work in Communications Space
- 3 Days' Notice of the Survey
- 15 Days to Approve Application (30 Days for Larger Orders)
- 15 Days' Notice of Make-Ready Construction

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One-Touch Make-Ready (cont'd)

- How Do You Know It's Only "Simple"?
 - No Pole Loading Issues?
 - No Pole Change-Outs?
 - No Electric Space Work?
 - No Safety Violations to be Corrected?
- What About ILEC Poles?

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H.R. 4858 CLIMB ONCE Act

- The bill would:
 - Amend § 224 as not to limit the ability of a State to adopt One-Touch Make-Ready
 - Require FCC to publish recommendations on best practice, including model State policy.
 - Establish an overly prescriptive definition of One-Touch Make-Ready.

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Detailed Make-Ready Estimates/Bills

- Is Pole-By-Pole Possible?
- In 14 Days?
- Fixed Costs Can Be Allocated Per Job Instead of Per Pole
- New Accounting Software Required?
- Extra Cost?
- Require More Than 14 Days?

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Overlapping

- 15 Days' Advance Notice
- What Information in Notice?
- Charge for Review of Proposed Overlap?

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Pre-Existing Violations

- Current Process – Charge New Attacher
- Cannot Hold New Attacher Responsible
 - But new attacher should share in cost
- Cannot Hold Up Access Just to Correct
- “Red-Tagged” Poles

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Joint Use Agreements with ILECs

- ILECs Can Request Lower Rates When New Contract or Contract “Renews”
- Utility Rate to Attach to ILEC Poles?
- Other Terms and Conditions of Joint Use Agreement?
- Offer Third Party Attachment Terms and Conditions?

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Going Forward

EEI: Smart Infrastructure Requires Smart Deployment

- It requires greater collaboration to achieve mutual benefit.
- Stakeholders like municipalities have critical priorities, like aesthetics, for economic development.
- Electric assets can and will be used for multiple other interests beyond communications: security, sensors, cameras, traffic management, etc.
- Both networks must be safe and extremely reliable!

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Smart Cities Across Alabama

- Alabama Power is partnering with city, community and university leaders to deploy Smart Cities initiatives including:
 - Fiber network connectivity – fiber to support physical security, cybersecurity and ultimate reliability of T&D networks.
 - The electric grid, communications network and mounting locations designed to support Internet of Things devices.
 - Devices must be deployed in locations and at heights that allow for accurate data collection. E.g., Wi-Fi, security cameras, and gunshot detection.
 - Poles must be designed to support the electric and communications infrastructure for those devices.

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Thank You!!!

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