

**COMPETITIVE ACCESS TO
BROADBAND INFRASTRUCTURE
WORKING GROUP**

FINAL REPORT

**Presented to the
Broadband Deployment Advisory Committee
of the
Federal Communications Commission
Washington, DC
November 9, 2017**

TABLE OF CONTENTS

Working Group Charge and Deliverable	3
Leadership and Membership	4
Fees and Rates Committee	6
Methods and Practices Committee	7
Timing and Process Committee.....	8
Other Infrastructure and Transparency Committee	9
Initial Meetings	10
Internal Deliberations.....	11
Introduction to Proposals	12
Category I Proposals	13
Category II Proposals.....	20
Category III Proposals	69
Conclusion.....	81

WORKING GROUP CHARGE AND DELIVERABLE

Charge:

- I. To develop recommendations on measures to promote speedier and more efficient competitive access to utility poles while ensuring safety and the integrity of existing attachments.
 - To review the Commission’s timeframe (and timeframes for states not under Commission pole jurisdiction) for gaining access to utility poles, identify delays, and make recommendations to result in faster access.
 - To explore pole attachment processes like one-touch make-ready and right-touch make-ready; and to provide a recommendation on a consensus approach.
 - To discuss make-ready fees and pole attachment rates associated with access to poles; and to provide recommendations.
 - To review the Commission’s complaint process, identify delay or inefficiencies, and recommend changes necessary to expedite the process.
- II. To examine and develop recommendations on measures to promote competitive access to other broadband infrastructure, *e.g.*, ducts, conduits, and rights-of-way.
- III. To recommend steps to improve the transparency of information regarding the availability of utility poles, rights-of-way, and other broadband infrastructure.

Deliverable:

To present recommendations for a vote to the Broadband Deployment Advisory Committee at the November 09, 2017, meeting, including possible recommendations for further study.

LEADERSHIP AND MEMBERSHIP

Working Group Chair: Ken Simon, Crown Castle

Working Group Vice-Chair: Brent Skorup, Mercatus Center at George Mason University

Working Group Members:

Allen Bell, Southern Company

Chris Bondurant, AT&T Mobile

Rosa Mendoza Davila, Hispanic Technology & Telecommunications Partnership

Aaron Deacon, KC Digital Drive

David Don, Comcast

Daniel Friesen, City of Buhler, Kansas

Bruce Holdridge, Gila River Telecommunications

Kirk Jamieson, Mobilitie

Ross Lieberman, American Cable Association

Geoffrey Manne, International Center for Law and Economics

Jim Matheson, National Rural Electric Cooperative Association

Cindy McCarty, East Kentucky Network d/b/a Appalachian Wireless

Milo Medin, Google Fiber

Paul Mitchell, Microsoft

Lyle Nyffeler, Samsung Electronics America

Christine O'Connor, Alaska Telephone Association

Karen Charles Peterson, Massachusetts Department of Telecommunications and Cable

Mike Saperstein, Frontier Communications

Grant Seiffert, Connected Nation

Lee Seydel, Fiber Utilities Group

Nicol Turner-Lee, Brookings Institution

George Wyatt, Jr., Association of Communications Engineers

Christopher Yoo, University of Pennsylvania

Designated Alternates:

Natalie Beasman, Southern Company

Martha Duggan, National Rural Electric Cooperative Association

Klay Fennel, Comcast

Monica Gambino, Crown Castle

Allen Gibby, International Center for Law and Economics

Kristian Stout, International Center for Law and Economics

Megan Stull, Google Fiber

Joseph Tiernan, Massachusetts Department of Telecommunications and Cable

FEES AND RATES COMMITTEE

Charge:

To provide recommendations regarding make-ready fees and pole attachment rates associated with access to poles.

Members:

Committee Chair: Karen Charles Peterson, Massachusetts Department of Telecommunications and Cable

Chris Bondurant, AT&T Mobile

Jim Matheson, National Rural Electric Cooperative Association

Mike Saperstein, Frontier Communications

Brent Skorup, Mercatus Center at George Mason University

Christopher Yoo, University of Pennsylvania

METHODS AND PRACTICES COMMITTEE

Charge:

To provide recommendations regarding pole attachment processes like one-touch make-ready and right-touch make-ready.

Members:

Committee Chair: Lyle Nyffeler, Samsung Electronics America

Aaron Deacon, KC Digital Drive

David Don, Comcast

Daniel Friesen, City of Buhler, Kansas

Kirk Jamieson, Mobilitie

Milo Medin, Google Fiber

TIMING AND PROCESS COMMITTEE

Charge:

- To review the Commission's timeframe (and timeframes for states not under Commission pole jurisdiction) for gaining access to utility poles, identify delays, and make recommendations to result in faster access.
- To review the Commission's complaint process, identify delay or inefficiencies, and recommend changes necessary to expedite the process.

Members:

Committee Chair: Ross Lieberman, American Cable Association

Allen Bell, Southern Company

Cindy McCarty, East Kentucky Network d/b/a Appalachian Wireless

Christine O'Connor, Alaska Telephone Association

Nicol Turner-Lee, Brookings Institution

George Wyatt, Jr., Association of Communications Engineers

OTHER INFRASTRUCTURE AND TRANSPARENCY COMMITTEE

Charge:

- To examine and develop recommendations on measures to promote competitive access to other broadband infrastructure, *e.g.*, ducts, conduits and rights-of-way.
- To recommend steps to improve the transparency of information regarding the availability of utility poles, rights-of-way and other broadband infrastructure.

Members:

Committee Chair: Lee Seydel, Fiber Utilities Group

Bruce Holdridge, Gila River Telecom

Geoffrey Manne, International Center for Law and Economics

Rosa Mendoza Davila, Hispanic Technology & Telecommunications Partnership

Paul Mitchell, Microsoft

Grant Seiffert, Connected Nation

INITIAL MEETINGS

The Competitive Access to Broadband Infrastructure Working Group (the “Working Group”) agreed that consulting a balanced roster of legal experts and practitioners “in the field” would help it identify fruitful areas of inquiry.

First Meeting: Legal Experts

- Outlined the history and current state of federal law concerning pole attachments
- Described how states “reverse preempt” and regulate attachments
- Described the state of the law surrounding exempted electric co-ops

Second Meeting: Practitioners in the Field

- Heard views from experts who represented or had represented ILECs, CLECs, cable operators, utilities, municipalities, and wireless infrastructure companies
- Informed Working Group members about possible process improvements, indemnification requirements, right-touch make-ready, real-world deployment timelines, and overlashing

INTERNAL DELIBERATIONS

In order to thoroughly consider and address the issues raised in the Working Group charge, the following four Committees were formed: Fees and Rates Committee, Methods and Practices Committee, Timing and Process Committee, and Other Infrastructure and Transparency Committee. Each of the Committees was assigned a portion of the charge of the Working Group.

The four Committees met weekly, sometimes more frequently, in thoughtful deliberation of the issues, consistent with their respective charges and areas of concentration, recognizing varying points of view and interests, with the collective goal of developing sets of recommendations which are realistic, actionable and well-conceived.

Since its inception the Working Group also met weekly to constructively present and discuss the various issues and items arising from the Committee discussions.

Despite differences of opinion, all believe that much should be done to effectuate the streamlining of permitting and construction of infrastructure to achieve better broadband access and delivery.

This report outlines the specific recommendations as promulgated by each Committee and approved by the full Working Group, respectfully submitted to the Broadband Deployment Advisory Committee for formal consideration and adoption.

INTRODUCTION TO PROPOSALS

The 15 Proposals developed by the four Committees within the Working Group can be categorized as follows:

- I. Proposals finalized and approved by the Working Group and escalated to the BDAC for formal consideration at the November 09, 2017, meeting:
 1. Timing and Process Committee (#1) – Pole Attachments FCC Enforcement: Complaint Shot Clock
 2. Fees and Rates Committee (#2) – Hurdles: Complaint Process
 3. Fees and Rates Committee (#3) – Hurdles: Double Recovery of Capital Costs

- II. Proposals finalized and approved by the Working Group but to be escalated to the BDAC for formal consideration at a future meeting:
 1. Methods and Practices Committee (#1) – Make-Ready Workflow: One-Touch for Simple Work in the Communications Space Streamlined for Wireless Attachments
 2. Methods and Practices Committee (#2) – Make-Ready Contractor Management: One-Touch Make-Ready for Simple Attachments / Streamlining for Wireless Attachments
 3. Timing and Process Committee (#2) – Joint Field Survey to Examine and Analyze Proposed Pole Attachments
 4. Timing and Process Committee (#3) – Defining “Complete” Attachment Applications
 5. Timing and Process Committee (#4) – Improving the Requesting Attachers’ Self-Help Remedy
 6. Fees and Rates Committee (#1) – Hurdles: Commingled Services
 7. Fees and Rates Committee (#4) – Hurdles: Rate Disclosure
 8. Other Infrastructure and Transparency Committee (#1) – Common Infrastructure Efficiencies
 9. Other Infrastructure and Transparency Committee (#2), in conjunction with the Methods and Practices Committee – Common Database Proposal

- III. Proposals remaining in draft and under discussion by the Working Group and to be escalated to the BDAC for formal consideration at a future meeting:
 1. Other Infrastructure and Transparency Committee (#3) – Simplifying Regulatory Delays
 2. Other Infrastructure and Transparency Committee (#4) – Maximizing Use of Broadband Infrastructure Eligible for Subsidy (E-rate)
 3. Other Infrastructure and Transparency Committee (#5) – Implementation Advisory Group

CATEGORY I PROPOSALS

Three proposals finalized and approved by the Working Group and escalated to the BDAC for formal consideration at the November 09, 2017, meeting:

1. Timing and Process Committee (#1) – Pole Attachments FCC Enforcement: Complaint Shot Clock
2. Fees and Rates Committee (#2) – Hurdles: Complaint Process
3. Fees and Rates Committee (#3) – Hurdles: Double Recovery of Capital Costs

Timing and Process Committee: Proposal #1

Pole Attachments FCC Enforcement: Complaint Shot Clock

Working Group Vote: **Pass** (17 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

Attachers and a number of pole owners have expressed concern that the FCC takes too long to resolve pole attachment complaints, which produces uncertainty that may impact deployment of broadband facilities. A modification to § 1.1425, Review Period for Pole Access Complaints, would require that final action on a complaint filed by a cable television system operator or telecommunications carrier regarding claims pertaining to access to a pole, duct, conduit or right-of-way owned or controlled by a utility should be expected within 180 days from the date the complaint is filed with the Commission, with discretion afforded to the Commission to pause the 180-day review period in situations where actions outside the Commission's control might delay the Commission's review of such an access complaint.

Issue/Background:

The objective of the federal "pole attachment" statute, Section 224 of the Communications Act, is to facilitate access to poles, ducts and conduit, consistent with safety and reliability requirements, to enable the expeditious deployment of cable, telecommunications and broadband infrastructure. Accordingly, when pole owners and pole attachers dispute access, as well as the rates, terms and conditions for such access, to these critical facilities, or with regard to other related issues, it is important to achieve the objective of Section 224 and to obtain prompt resolution of pole attachment complaints.

Application of Proposal:

In the *2011 Pole Attachment Order*¹, the FCC acknowledged concerns about the length of time required to resolve pole attachment complaints but did not adopt a shot clock, finding that the record was not sufficient and that other processes it adopted could address these concerns. In the pending *Accelerating Wireline Broadband Deployment* Notice of Proposed Rulemaking,² the FCC revisits its decision and proposes to adopt a 180-day shot clock for complaints alleging a complete denial of access. It also seeks comments about whether this shot clock should apply to complaints alleging a pole owner is imposing unreasonable rates, terms, and conditions.³ The FCC notes that under Section 224(c)(3)(B), a state asserting jurisdiction over the rates, terms and conditions for pole attachments could lose the ability to resolve a complaint if it does not act within 180 days after the complaint is filed.⁴

Comments from Stakeholders in FCC Wireline NPRM

Selected Commenters Favoring a 180-Day Shot Clock (including American Cable Association, Crown Castle, CTIA, Lumos, NCTA, US Telecom, Verizon, Wireless Infrastructure Association, and the Wireless Telecommunications International Association)

- The current process without any deadline for the FCC to resolve complaints “dares” an attacher to bring an enforcement action, knowing that it is costly to pursue a complaint and virtually impossible to have it resolved in a timely fashion.
- The mere fact that such a complaint is pending produces a degree of uncertainty that may serve as a deterrent to the deployment of broadband facilities.

¹ *Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, Report and Order and Order on Reconsideration, WC Docket No. 07-245, GN Docket No. 09-51, 26 FCC Rcd 5240, 5286, para. 102 (2011).

² *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, FCC 17-37, para. 47 (Apr. 21, 2017).

³ *Id.*, para. 51.

⁴ *Id.*, para. 47.

- A 180-day shot clock would introduce greater predictability and certainty for attachers, promote more timely deployment of broadband infrastructure, provide greater uniformity for addressing pole attachment complaints, and afford the FCC with sufficient time to adjudicate the disputes fairly and reasonably.
- The six month timeframe is the same period that Congress allowed for reverse-preemption states to decide pole attachment complaints.

Selected Commenters Opposing a 180-Day Shot Clock (including Coalition of Concerned Utilities and the Utilities Technology Council)

- Pole attachment access disputes involve technically complex issues and detailed facts. In addition, pole records at many utilities are voluminous, and discovery can be extremely burdensome. Sufficient time must be allocated to examine the complex and difficult issues.
- A 180-day shot clock will discourage or prevent the FCC’s Enforcement Bureau from undertaking the necessary examination and analysis to sufficiently consider the evidence on the record in a complaint proceeding.

Summary of the Deliberation Among Committee Members:

Members of the Committee believe that, because it would reduce uncertainty about rights and responsibilities, attachers and poles owners would benefit by having the FCC resolve pole attachments complaints within 180 days of the complaint’s filing. The Committee rejected proposals that the shot clock should begin at times, such as after the complaint pleading cycle ends, other than when a complaint is filed, because the Committee believes their proposal gives sufficient time for the FCC to receive and consider all evidence. At the same time, the Members supported giving the FCC the ability to “pause” the shot clock in limited circumstances where it would serve the public interest, *e.g.*, when needed to receive key additional evidence or where the parties seek to pursue direct resolution. Unlike the *Accelerating Wireline Broadband Deployment* NPRM’s proposal to apply the 180-shot clock only to complaints alleging a complete denial of access, the Committee suggests that the shot clock should apply to any

allegation against a pole owner for not following the FCC's rules, including imposing unreasonable rates, terms and conditions.

Industry Precedents:

1. New Hampshire Public Utilities Commission (PUC 1304.03) – “The commission shall issue its order resolving the complaint within 180 days of the receipt of a complete petition under this part.”
2. Washington Statute WAC 480-54-070(1) – “The commission will enter an initial order resolving a complaint filed in conformance with this rule within six months of the date the complaint is filed.⁵ The commission may extend this deadline for good cause.”

Conclusion:

Proposed Rule Change to § 1.1425, Review Period for Pole Access Complaints, specifically:

1. Except in extraordinary circumstances, final action on a complaint filed by a cable television system operator or telecommunications carrier regarding claims involving access to a pole, duct, conduit or right-of-way owned or controlled by a utility should be expected no later than 180 days from the date the complaint is filed with the Commission.
2. The Commission shall have the discretion to pause the 180-day review period in situations where actions outside the Commission's control are responsible for unreasonably delaying Commission review of an access complaint.

⁵ A complaint may involve denial of access, a failure to negotiate in good faith the rates, terms, and conditions of an attachment agreement, or a dispute about the rates, terms, or conditions in, or compliance with, an agreement.

Fees and Rates Committee: Proposal #2

Hurdles: Complaint Process

Working Group Vote: **Pass** (20 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

Adopt a reasonable shot clock process for all pole attachment complaints, which would apply to complaints between pole attachers and pole owners.

Issue/Background:

Pole attachers and pole owners do not have an expedited process for resolving complaints about rates or fees related to the attachment process. These issues can languish for a protracted amount of time at the FCC, which impedes broadband deployment.

Application of Proposal:

To facilitate the complaint process and to reach a resolution that does not continue to delay broadband deployment, a reasonable shot clock would be 180 days. This complaint process shot clock would apply both to complaints filed by attachers and those by pole owners.

Conclusion:

A reasonable shot clock process of 180 days should be applied to complaints filed by pole owners and pole attachers. [Please also refer to the preceding proposal by this Working Group's Timing and Process Committee (Proposal #1).]

Fees and Rates Committee: Proposal #3

Hurdles: Double Recovery of Capital Costs

Working Group Vote: **Pass** (20 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

The FCC should provide clarification that recovery by a pole owner for capital costs previously recovered through the make-ready process is not acceptable.

Issue/Background:

In rare instances, in calculating attachment rates, some pole owners have included capital costs that have been previously recovered in the calculation of make-ready fees.

Application of Proposal:

The FCC should clarify that pole owners must subscribe to appropriate and accurate accounting principles and rules, mandating that pole owners cannot use an increase in rates to recover capital costs already addressed in make-ready fees.

Conclusion:

Pole owners should not be able to recover capital costs through the make-ready process more than once.

CATEGORY II PROPOSALS

Nine proposals finalized and approved by the Working Group but to be escalated to the BDAC for formal consideration at a future meeting:

1. Methods and Practices Committee (#1) – Make-Ready Workflow: One-Touch for Simple Work in the Communications Space Streamlined for Wireless Attachments
2. Methods and Practices Committee (#2) – Make-Ready Contractor Management: One-Touch Make-Ready for Simple Attachments / Streamlining for Wireless Attachments
3. Timing and Process Committee (#2) – Joint Field Survey to Examine and Analyze Proposed Pole Attachments
4. Timing and Process Committee (#3) – Defining “Complete” Attachment Applications
5. Timing and Process Committee (#4) – Improving the Requesting Attachers’ Self-Help Remedy
6. Fees and Rates Committee (#1) – Hurdles: Commingled Services
7. Fees and Rates Committee (#4) – Hurdles: Rate Disclosure
8. Other Infrastructure and Transparency Committee (#1) – Common Infrastructure Efficiencies
9. Other Infrastructure and Transparency Committee (#2), in conjunction with the Methods and Practices Committee – Common Database Proposal

Methods and Practices Committee: Proposal #1

Make-Ready Workflow: One-Touch for Simple Work in the Communications Space Streamlined for Wireless Attachments

Working Group Vote: **Pass** (15 Yes, 1 No, 1 Abstain)

Executive Summary of Proposal:

The FCC should create rules for a streamlined application, permitting and make-ready process that utilize a one-touch make-ready model in the communications space to expedite the deployment of broadband infrastructure. The rules should provide pole attachers with a single-contractor, single-trip solution which facilitates make-ready work-related activities and provides adequate staff and resources to support to all sizes of projects. For wireless attachments the Committee encourages streamlining through electric utility approval of contractors to work on wireless attachments in the power space, although electric utilities may reserve work on their own facilities in the power space as needed. The rules should also balance every community's interest in safety and continuous service. Finally, we believe these rules should be uniform across all jurisdictions and for all entities. Therefore, the Committee encourages the FCC to seek to unite all jurisdictions, including municipally-owned utilities, rural electric cooperatives, and reverse preemption states, into a unified one-touch make-ready process.

Issue/Background:

The make-ready process takes too long and is a significant barrier to faster broadband deployment. There are many parties involved, with varying obligations and sometimes competing interests.

There are too many trips to the utility pole by multiple parties and contractors with long delays in between and a complex layer of approval processes, when in many cases, one contractor could perform all the work on one visit to the satisfaction of the pole owners and all existing and new attachers. There is not always consensus among various stakeholders (*i.e.*, pole owners, existing attachers, new attachers) about how to distinguish simple and complex cases, how to qualify contractors for make-ready work, and how to identify when the prolonged process is a result of

anticompetitive interests rather than valid issues for resolution. These problems fall into two categories: a problem of process, and a problem of management and competing interests.

This process inefficiency exists in part because there is no active, collaborative and coordinated forecasting, planning, deployment and close out system. The process is bureaucratic, time consuming, and unnecessarily confusing for existing attachers and new attachers alike. This general process failure is largely because pole owners, whose permission and oversight is ultimately required for broadband attachers, are often not in the telecommunications business and do not generally have incentives, priority or expertise in optimizing telecommunications deployment.

Application of Proposal:

The FCC should enact a rule requiring one-touch make-ready, especially for simple attachments, and set guidelines for expedited “shot clocks” throughout the permitting and make-ready processes, with appropriate payment and dispute resolution mechanisms to incentivize adherence to these shot clocks.

1. A single qualified (reference “Make-Ready Contractor Management” proposal) contractor (“one-touch”) ought to transfer, relocate, rearrange, alter, or attach communications equipment for multiple attachers to a pole in the following *simple* make-ready circumstances:
 - In the case of a simple attachment
 - Only in the communications space
 - Where there is no cable splicing or existing attacher’s wireless equipment moving
2. Adopt a distinction between *simple* and *complex* make-ready, with *complex* meaning make-ready that will cause, or would reasonably be expected to cause, a customer outage, and *simple* covering all other make-ready work.
3. Include a separate category for wireless expertise pursuant to the “Make-Ready Contractor Management” proposal. For *wireless power space* make-ready that does not involve third party outage risk (*i.e.*, no fiber or cable splicing), electric utility pole

owners may choose to perform any work on their own facilities separately from the installation of the wireless attachment, but ideally a pole owner would approve a contractor to perform both steps. In the case of *complex or wireless power space* make-ready work, a maximum shot clock timeline should be established during which engineers or field reps from various interested parties can visit the pole, decide what needs to be done, determine who can/should perform the work, and actually complete the make-ready work.

4. Ensure equality in attachment terms amongst all attachers and allow attachers to “MFN” (“Most Favored Nation”) into any applicable pole attachment agreement with the owner. This process would be similar to Interconnection Contract Agreement (ICA) MFN options permitted under the rules today. Pole owners should not be allowed to discriminate between different attachers by providing special attachment terms to certain attachers who may have larger bargaining power, conflicting relationships, or competitive reasons for providing different terms for different attachers and vice versa.
5. Pole owners must maintain a list of pre-approved contractors that have the pole owner’s permission to work on the pole, with an indication of which kinds of work the contractor is allowed to perform, although the pole owner may not unreasonably withhold permission for contractors that otherwise maintain the minimum self-certification requirements referenced in the –“Make-Ready Contractor Management” proposal.
 - Types of work should include: *simple* and *complex*; in the communications space only, power space only, wireless communications space or wireless power space, power and communications spaces; or wireless power and communications spaces; and other categories as needed.
6. The FCC should outline recommended notification obligations by party, action and timeline, starting from permit application continuing through completion of work. Events that trigger notification may include:
 - Permit/request for attachment

- Response to request for attachment
 - Make-ready work required
 - “Simple” / “complex” determination
 - Work performed, accepted, evaluated, etc.
 - Information on where to attach, contractor doing work, etc.
7. New attachers are to absorb all costs (on a cost-basis rather than a flat-fee basis) incurred by virtue of new attachment, including:
- Make-ready work for all attachments
 - Field inspection of each existing attacher (if desired, below)
 - Indemnification for damages to existing attachments and pole owner assets
 - The exception to “all costs” are those costs associated with bringing the pole into compliance with current safety and pole owner standards to the extent such poles were out of compliance prior to attachment.

The FCC should establish a pilot program to spur development of regional or state management of the make-ready process with a systems view of broadband deployment. While the specific recommendations outlined above may be distributed throughout the management process as it exists today and will result in greater efficiencies, additional efficiency may be gained by consolidating and incentivizing some of these tasks within a single organization, either a current party to the process (such as pole owners, but with a more active and incentivized management role) or a third party (such as a state or multi-county association or agency, an electric co-op in rural areas, or a metropolitan planning authority or regional transit authority in metro areas).

Conclusion:

The Committee recommends: 1) adoption of guidelines that move toward one-touch make-ready for simple attachments; and, 2) exploring how to align the money spent through the make-ready process to fund management capacity to increase efficiency and preserve local control.

Methods and Practices Committee: Proposal #2

Make-Ready Contractor Management: One-Touch Make-Ready for Simple Attachments / Streamlining for Wireless Attachments

Working Group Vote: **Pass** (15 Yes, 2 No, 0 Abstain)

Executive Summary of Proposal:

When adopting a one-touch make-ready protocol a need arises for the newly attaching entity to hire a single contractor to perform all make-ready work at the same time, which often includes work on third-party attachments. These third-party attachers are often uncomfortable allowing contractors they did not select to perform work on their facilities. Creating a clear set of standards and qualification processes for make-ready contractors will protect third-party facilities during make-ready work and establish a minimum set of standards other attachers, pole owners and others can rely upon. Further, the lack of unified contractor qualification and selection standards for pole attachment make-ready work creates an inefficient process of multi-trip, multi-vendor make-ready work which increases the probability of safety and reliability risks and also provides an opportunity for delays and anti-competitive behavior by incumbent attachers.

Issue/Background:

1. Existing attachers worry that one-touch make-ready endangers their attachments / service because they are not in control of the contractor nor the quality of the contractor.
2. One-touch make-ready creates a need for a contractor to touch facilities owned by third-party attachers.
3. Opponents of one-touch make-ready often cite unknown contractor qualifications as a principle reason why one-touch make-ready should not be adopted.
4. A significant difference in the risk of service outages exists between simple and complex make-ready work.

5. Safety and reliability issues are a bona fide concern of involved third parties of one-touch make-ready processes.
6. Pole owners often appear uninterested in managing the attachment processes in the communications space on a pole and leave contractor choice up to the attacher. Exceptions do exist however, especially with municipality-owned poles where the municipality establishes a list of approved contractors. Even with interested pole owners, incentives often do not exist to manage contractors efficiently for speed and quality.
7. One-touch make-ready was created solely for wireline attachments and does not address wireless attachment issues, which we believe should be treated as a separate category. We propose that the principles of one-touch make-ready should apply to wireless to reduce trips to the pole as much as possible.

Application of Proposal:

1. Establish minimum competency requirements for attachers to require of themselves and their contractors to ensure safety and reliability during one-touch make-ready operations.
2. For make-ready work within the communication worker safety zone, as defined by the NESC, the pole owner or other third party attachers may not deny the use of contractors that follow minimum self-certification requirements.
3. The minimum self-certification requirements recommended are:
 - a. The contractor agrees to follow published safety and operational guidelines of the pole owner, if made available. If unavailable, the contractor agrees to follow NESC guidelines.
 - b. The contractor acknowledges it knows how to read and follow licensed-engineered pole designs for make-ready work if required by the pole owner.

- c. The contractor agrees to follow all local, state, and federal law and regulations including but not limited to the rules regarding Qualified and Competent Persons under the requirements of OSHA rules.
 - d. The contractor meets or exceeds any uniformly applied and reasonable safety record thresholds set by the pole owner, if made available, *i.e.*, the contractor does not have an unsafe record of significant safety violations or worksite accidents.
4. Allow pole owners to establish commercially reasonable requirements in addition to, but not in conflict with, the minimum self-certification requirements relating only to issues of safety and reliability. Such requirements must be implemented on a non-discriminatory basis amongst all attachers (including the pole owner itself), be in writing, and be made publicly available on the pole owner's website for review.
5. For complex attachments (*i.e.*, in or above the power space), it is reasonable that a second, power space-qualified list of contractors be provided. This is in consideration for the additional competency, safety and costs that may need to be considered for working in the power space.
6. Wireless attachment contractors will be qualified specifically for wireless as well as for communications and/or power space work. For work on wireless attachments within or above the power space, an electric utility pole owner will maintain a list of approved wireless power space contractors. Such wireless contractors also must be approved by an electrical utility pole owner to work in both the communications and power spaces. An electric utility may reserve work on its own equipment in the power space to its own employees or contractors, although it is strongly preferred that utilities approve contractors to perform both wireless and electric utility work in the power space.
7. Pole owners will maintain a list of currently qualified contractors in each category.
8. Should an independent third party be designated by the FCC or an Implementation Advisory Group (as discussed in further detail in another Committee proposal) or other continued development of pole management, that third party could maintain current contractor lists and oversee contractor qualification to the extent pole owners might

desire. If, for example, a database administrator or an Implementation Advisory Group is named, the contractor management support function could be included in their scope.

9. Permit any attacher that meets the minimum competency requirements and the safety and reliability requirements of the pole owner to perform any make-ready work on any third party attacher's facilities that is reasonably likely not to cause an outage for any third party attacher.

Conclusion:

A key component of the one-touch make-ready process is the application of a single “pre-qualified” contractor to perform the make-ready work in the communications space on the pole. For more complex applications that require work in or above the power space, there may be a need for a second set of qualified contractors due to the heightened complexity and safety concerns for this type of work. Developing a consistent, transparent and equitable method for identifying, qualifying and accessing these contractors will help speed broadband deployments.

Timing and Process Committee: Proposal #2

Joint Field Survey to Examine and Analyze Proposed Pole Attachments

Working Group Vote: **Pass** (20 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

A utility in performing a field inspection as part of any pre-construction feasibility survey shall be required to permit a requesting attacher and existing attachers potentially affected by the proposed work to be present for the survey. The utility will use commercially reasonable efforts to provide advance notice of the survey of not less than three days to a requesting attacher and any existing attacher.

Issue/Background:

During review of an attacher's application, a utility and a requesting attacher may reasonably disagree over the need for make-ready on one or more poles, which consequently can delay approval of the application. Moreover, existing attachers, which may have a stake in the make-ready work, are not involved in the make-ready process until they are told how their attachments may need to be modified to accommodate a new attacher.

Rationale for Proposal

By jointly conducting a field inspection of each pole for which the attacher is requesting access, a utility and attacher could more readily avoid or resolve common issues. This coordination would speed up the application process and lower the cost of attachments. Moreover, the cost to the utility would be minimal, since it already will be conducting a survey. The utility only needs to provide notice to the attacher and, if it accepts, allow the attacher to participate in the inspection. Similar benefits would accrue by enabling existing attachers with attachments on the affected poles to be on-site during the joint survey. These attachers could provide a utility and requesting attacher with input, which again could expedite make-ready and lower the cost of attachments.

Legal Background

Neither the FCC nor States have previously addressed the issue of joint field surveys.

Selected Comments from Stakeholders in FCC Wireline NPRM

Utility Commenters, while not discussing joint surveys explicitly, generally state that they must control the application and survey process: “Surveying the pole lies at the crux of ensuring safety, which cannot be compromised under any circumstances. The Commission must therefore ensure that utilities are provided sufficient time to conduct the surveys necessary to protect and maintain the safety, reliability, and integrity of the electric and communications infrastructure.”¹

The American Cable Association recommends that “utilities be required to provide attachers with the option to conduct joint pole surveys ... [and be prohibited] from making unreasonable demands related to the joint survey, such as giving attachers only a few days’ notice of the survey date or requiring payment to conduct the joint survey that would be in addition to the amount the utility would incur to conduct its own survey.”²

Industry Precedents

1. As found in the Master Service Agreement (MSA) between Southern New England Telephone (now Frontier Communications) and a Connecticut municipality³:

¹ Joint Reply Comments of Alliant Energy Corporation et al., WC Docket No. 17-84, at 16 (July 17, 2017).

² Reply Comments of the American Cable Association on the Notices of Proposed Rulemaking, WC Docket No. 17-84 and WT Docket No. 17-19, at 18 (July 17, 2017).

³ Source: http://www.ct.gov/broadband/lib/broadband/ctgig_project/attachment_d_snet_muni_pole_attachment_agreement_3_31_15.pdf.

“A field inspection will be performed by the SPA [Single Pole Administrator] and Frontier representatives with optional participation by Other Owner(s), Other Licensees and Municipality.”

2. Excerpted from Verizon’s MSA for the State of New York⁴ :

“At the option of the Licensee, the field inspection will be performed: (1) by representatives of the Licensor with optional participation by joint owner(s), joint user(s), and other Licensees and the Licensee, or (2) by Licensee, after first providing notice to the Licensor of its intention to perform said field inspection.”

3. From Consolidated Edison’s New York MSA⁵:

“There shall also be a joint field inspection by Edison and LICENSEE.”

Summary of the Deliberation Among Committee Members

Members of the Committee agreed that a joint survey would be a useful option for the attacher and could benefit the utility as well. They also agreed that the pole owner should be able to establish the timing of the joint survey and then give the attacher reasonable notice (of not less than three days) to participate. The group decided not to be prescriptive on what constitutes specific notice.

One Committee member, a utility representative, noted that any notice requirement should not reduce the amount of time that the pole owner had to complete the application within any government-mandated timeframe. For instance, a pole owner seeking to conduct the survey the same day that the application was filed could mean a needless waste of three days and therefore less time to finish the application in full. The group decided this would not be an issue unless the FCC’s current survey timeframe is shortened. The group further decided that, in the event that

⁴ Source: https://www22.verizon.com/wholesale/attachments/pcl/PCL_NY_Pole_Agmt_1.pdf.

⁵ Source: <https://legacyold.coned.com/team/docs/pole-attachment-agreement.pdf>.

the timeline for completing the survey was shortened to less than 57 days in total, the joint survey proposal should be accommodated by adding three days to the timeline to account for the joint survey proposal's three-day notice requirement. This then would keep a utility whole with regard to honoring this joint survey proposal.

Based on input from the Working Group, the proposed rule was expanded to require utilities to provide notice to existing attachers potentially affected by the proposed make-ready work. The committee concluded that the benefits of allowing any existing attacher to be on-site during the survey process, which is earlier than these parties often are aware of work potentially affecting their attachments, far outweighed possible concerns by new attachers about giving potential competitors advance notice of their deployment plans.

In response to questions from Working Group members about whether existing attachers, by being given advance notice of survey work, could somehow slow the survey process, it was made clear that the proposal does not require a utility to set a date for the survey that is convenient for existing attachers (or even new attachers); rather, it only requires the utility to give any existing attacher the right to be notified and to be present at the date and time set solely by the utility.

Conclusion:

Proposed Rule Change: To be added to the end of § 1.1420(c), the following underlined text is recommended:

“(c) Survey. A utility shall respond as described in § 1.1403(b) to a cable operator or telecommunications carrier within 45 days of receipt of a complete application to attach facilities to its utility poles (or within 60 days, in the case of larger orders as described in paragraph (g) of this section). This response may be a notification that the utility has completed a survey of poles for which access has been requested, consistent with its obligation to offer the opportunity for joint surveys as set forth below. A complete application is an application that provides the utility with the information necessary under its procedures to begin to survey the poles. A utility shall permit a cable operator or telecommunications carrier requesting attachment and any entities with existing attachments on the affected poles to be present for a field inspection conducted as part of a survey. A utility shall use commercially reasonable efforts

to provide a cable operator or telecommunications carrier requesting attachment and any entities with existing attachments on the affected poles with advance notice of not less than three days of a field inspection as part of a survey.”

Timing and Process Committee: Proposal #3

Defining “Complete” Attachment Applications

Working Group Vote: **Pass** (18 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

For a pole attachment application to be complete, the requesting attacher needs to supply necessary information that the utility specifies in a master service agreement or in publicly-released requirements to begin to survey the poles. An application shall be deemed complete seven days after it is filed unless the utility informs the requesting attacher and identifies the specific information that has not been provided. In resubmitting an application, a requesting attacher need only provide the “missing” information identified by the utility, and a resubmitted application shall be deemed complete three days after it is filed unless the utility informs that requesting attacher that the identified information has not been provided.

Issue/Background:

In the *2011 Pole Attachment Order*, the Commission established a timeline for a utility to address attachment requests. The timeline is triggered when a requesting attacher files a complete application, but the Commission did not require a utility to specify the information that is needed to be contained in its complete application and did not provide a process for deeming an application as complete. As a result, requesting attachers may submit applications that they believe to be complete, but either the utility rejects the application (fails to deem it complete) because it determines information relevant to conducting a survey is not supplied or the utility fails to respond in a timely manner.

Application for Proposal:

Attachments would be facilitated, and potential disputes between requesting attachers and utilities would be reduced, by creating a more transparent and objective application process, where requesting attachers would be more certain that they were supplying information utilities need to begin a survey and that their applications would be considered in a timely manner.

Legal Background

The timeline adopted in the *2011 Pole Attachment Order* is triggered by a complete application. The Commission raised the issue of when an application should be considered complete in the rulemaking proposal leading to this order¹; however, it did not establish information requirements for either a “complete” application or a process for determining when an application is complete.

Comments from Stakeholders in the FCC Wireline NPRM

1. Charter Communications

“One opportunity for improvement would be to limit burdensome application requirements by pole owners. Although the information that pole owners require to evaluate a new attachment can vary, it often consists of a route map and drawings of individual poles showing the proposed location and configuration of the new attachment on the pole. However, some pole owners have excessive application requirements, including unnecessary engineering, that have marginal (if any) safety value—and which add significantly to the cost and schedule for deploying new attachments.”

2. Coalition of Concerned Utilities

“The information that utilities require in applications, however, is vital to a safe and timely application process. Information provided in response to applications provides the data needed to accurately plan and account for work that will have a significant impact on the utility and its customer and reliability commitments.”

Industry Precedents

In 2004, the New York Public Service Commission adopted a timeline for attachments, which specified, among other things, that a utility process an application within five business days of

¹ See *Implementation of Section 224 of the Act et al.*, WC Docket 07-245 *et al.*, Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 11864, 118??, para. 37 (2010). The rulemaking referenced the New York Public Service Commission’s 2004 decision cited in n. 2, *infra*.

receipt and notify an applicant promptly of any deficiencies.

A review of various pole attachment agreements in different jurisdictions indicates that no agreement defines the term “complete” or provides a specific process to determine when an application is complete.

Summary of the Deliberation Among Committee Members

Committee members discussed two interrelated issues concerning the submission of applications to attach by telecommunications carriers and cable operators to utilities that can delay timely deployment of broadband service. First, utilities need applicants to provide complete, accurate, and sufficient information related to the proposed attachments, and applicants need to know what information utilities require to fill out their applications. Second, applicants need utilities to consider and find applications to be complete in a timely manner. Committee members recognize that the FCC’s pole attachment timeline does not start until the utility deems an application to be complete, and that, because the Commission has not specified when an application is complete and how this should be determined, uncertainty exists for utilities and attachers as does an increased potential for disputes to arise.

One Committee member proposed to limit the information that a utility may request in an application to only that which is known to the applicant; however, Committee members were not prepared to accept this recommendation and thereby restrict the information that may be requested by a utility beyond existing restrictions found in the Commission’s rules (*i.e.*, “information necessary under [the utility’s] procedures to begin to survey the poles”). At the same time, Committee members agreed that a utility should not be permitted to demand that an applicant supply additional information before deeming an application complete that the utility did not explicitly require at the time of the application’s submission. To reduce uncertainty, the Committee decided that an applicant need only supply the information that is expressly stipulated in its master agreement with the utility and/or set forth in a utility’s instructions related to its application. Committee members further agreed that this recommendation struck the right balance between ensuring that utilities can request and collect information they deem necessary to begin to survey poles and enabling applicants to ascertain the information that utilities require to find an application complete.

The Committee members also concluded that the timeline would have little value if utilities could take an unlimited amount of time to deem applications to be complete. Members debated whether the utility should have five or ten days to deem an application to be complete, and they settled on seven days. Members also decided that utilities, in finding an application to be incomplete, must inform the applicant promptly about what information is missing or insufficient, and that an applicant should be able to cure an incomplete application by only providing the missing or insufficient information rather than having to submit information that was not required to be provided in the first instance. Committee members decided that utilities should have three days to review whether applicants provided the missing or insufficient information, and the application therefore should be deemed complete if this deadline is not met.

Conclusion:

Proposed Rule Change: At the end of 1.1420(c) the following underlined text should be added:

“(c) Survey. A utility shall respond as described in 1.1403(b) to a cable operator or telecommunications carrier within 45 days of receipt of a complete application to attach facilities to its utility poles (or within 60 days, in the case of larger orders as described in paragraph (g) of this section). This response may be a notification that the utility has completed a survey of poles for which access has been requested. A complete application is an application that provides the utility with the information necessary under its procedures, as specified in a master service agreement or in publicly-released requirements at the time of submission of the application, to begin to survey the poles. An application shall be deemed complete seven days after its submission unless the utility notifies the applicant that the application is incomplete and enumerates all reasons for finding it incomplete. Any resubmitted application need only address the utility’s enumerated reasons for the application being incomplete and shall be deemed complete within three days after its resubmission unless the utility specifies which enumerated reasons were not addressed.”

Timing and Process Committee: Proposal #4

Improving The Requesting Attachers' Self-Help Remedy

Working Group Vote: **Pass** (18 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

Improve the Commission's existing self-help remedy that requesting attachers may use when existing attachers do not perform make-ready within the 60-day timeline by: (1) focusing the utility's role on initial notification of the need for make-ready work by existing attachers and eliminating utility involvement in self-help make-ready work; (2) enabling a requesting attacher to invoke the self-help remedy and to perform make-ready in accordance with applicable government laws and regulations and engineering and safety standards without using a utility's approved contractors; and (3) requiring the requesting attacher, when invoking the self-help remedy, to provide notice to the utility and existing attachers, thereby giving them an opportunity to be present when it performs the make-ready work.

Issue/Background:

In adopting the timeline in the *2011 Pole Attachment Order*, the Commission permitted a requesting attacher to undertake make-ready work in the communications space when existing attachers failed to perform within the 60-day timeframe. The Order, however, requires that a requesting attacher first permit a utility to undertake the work and, if the utility does not act, then to undertake the work using utility-approved contractors. The Order also places the burden for monitoring performance by existing attachers on the utility, although the utility has less of a stake than the requesting attacher in ensuring such work would be performed. As a result of these issues, requesting attachers have found the self-help remedy to be of uncertain value, and consequently it has been rarely invoked.

Preface

This Working Group has focused on various mechanisms to expedite pole attachment make-ready. It has separately adopted a proposal to provide for one-touch make-ready which would enable a requesting attacher to perform make-ready immediately upon approval of its

application and thereby obviate the need for sequential make-ready by multiple existing attachers. A requesting attacher, however, may decide not to use one-touch make-ready for a variety of reasons, perhaps, by example, because it is willing to wait 60 days for an existing attacher to perform the work to avoid any chance of being liable for moving existing attachments. For that reason, to provide a requesting attacher with an alternative approach, which is complementary to One Touch Make-Ready, the Working Group also seeks to improve the existing self-help remedy as discussed herein.

Rationale for Proposal

As the Commission found in 2011, enabling a requesting attacher to undertake make-ready work when an existing attacher fails to act within the 60-day window both provides a reasonable incentive for an existing attacher to perform make-ready work and a reasonable alternative when it does not. In addition, the self-help remedy encourages discussion among the utility, existing attachers, and the requesting attacher, which limits disputes and lessens the need for parties to bring complaints to the Commission. While the self-help concept is sound, the policies implementing the concept have created challenges, which can be addressed with the following recommended fixes.

First, the requesting attacher, not the utility, should play the key role in reminding existing attachers of their need to undertake make-ready work. Second, the utility should not be involved in self-help make-ready work, and the requesting attacher should be able to undertake the work promptly, in accordance with applicable federal, state, and local laws and regulations and applicable engineering and safety standards, all without using utility-approved contractors when existing attachers do not act within the 60-day window. Third, a requesting attacher, upon invoking the self-help remedy and undertaking make-ready on the attachments of existing attachers, should inform the utility and existing attachers so they can be present when it performs the work.

Legal Background

The timeline adopted in the *2011 Pole Attachment Order* provides a requesting attacher with the right to undertake make-ready work if existing attachers in the communication space do not

perform within the 60-day window (or 105 days for larger orders) (§1.1420(i)). The regulations also require the requesting attacher to give the utility 15 days to undertake the work (§1.1420(i)(2)) and to use a contractor (§1.1422(b)) from a list of approved contractors that the utility is required to provide (§1.1422(a)).

Comments from Stakeholders in the FCC Wireline NPRM (WC Docket No. 17-84)

In the Wireline NPRM, the Commission sought comment on whether to adopt new rules allowing a requesting attacher to perform routine make-ready in lieu of the existing attacher. Among the different practices the Commission proposed to achieve this objective included modifying the existing self-help remedy so that a requesting attacher could use its own contractors and adopting one-touch make-ready or right-touch make-ready. In regard to modifying the existing remedy, the following comments were representative of those filed.

1. American Cable Association

“The Commission should improve the effectiveness of the self-help remedy by providing greater clarity on the relative rights and responsibilities of each party. Specifically, the Commission should clarify that if existing attachers fail to complete make-ready within the Commission’s 60-day timeframe, the new attacher has an enforceable right to undertake all necessary make-ready using its own contractor, including work in the electric space. The new attacher would be required to provide reasonable notice to existing attachers so they can be present while the work is performed and would remain liable for any damages caused by faulty make-ready work. The Commission also should eliminate the 15-day period for utilities to undertake make-ready at the end of the 60-day period, as ACA representatives reported that utilities generally have no interest in handling such work.”

2. Coalition of Concerned Utilities

“Communications companies should select the contractors performing work in the communications space on the poles, but any decisions about who controls make-ready engineering and make-ready work in the communications space should remain with each electric utility pole owner.”

3. Midwest Electric Utilities

“The Midwest Electric Utilities have little or no direct involvement in the performance of make-ready work in the communications space. All of the make-ready work in the communications space is performed either by the new or existing attachers or by their qualified contractors, and any coordination concerning matters such as the use of contractors, the timing of completion of make-ready work, and so forth, is entirely in the hands of communications companies.”

Summary of the Deliberation Among Committee Members

Members of the Working Group’s Committee (Committee) agreed that the Commission’s 2011 self-help remedy appropriately balances the rights of requesting attachers that do not seek to use the proposed one-touch make-ready (or similar practice) and existing attachers, but the rule and requirements implementing the concept needed to be amended and clarified, which then could lead to more effective use of the remedy. Committee members also determined that utilities were not carrying out their obligations under the rules, which were intended to facilitate a requesting attacher’s use of the self-help remedy, but an improved outcome could be achieved without imposing new rules or greater enforcement penalties on them. Rather, Committee members agreed that requesting attachers could take on many of the obligations now imposed on utilities.

First, Committee members decided a utility need only provide to existing attachers the following: notice of the requesting attacher’s make-ready work, the deadline for them to complete such work according to the Commission’s rules, and the requesting attacher’s contact information. Once a utility gave this notice, a requesting attacher, who had sufficient incentive to ensure existing attachers completed their work, would assume oversight responsibility.

Second, based on information that utilities rarely, if ever, assert their right to complete make-ready that is uncompleted by existing attachers within 15 days, Committee members agreed to remove this obligation on utilities, which would facilitate a requesting attacher completing make-ready as quickly as possible.

Third, for several reasons, Committee members decided that utilities need not provide, and requesting attachers need not utilize, utility-approved contractors to complete make-ready under the self-help remedy. To begin with, based on discussions with utilities and attachers, the Committee determined that a requesting attacher, especially one who has elected to wait 60-days to allow existing attachers to move their own attachments, has sufficient incentive to use a competent contractor who would perform the remaining work properly. The Committee further believed remaining concerns are adequately addressed by the following additional safeguards. The Committee's updated self-help remedy gives existing attachers affected by a requesting attacher's execution of self-help with a reasonable opportunity to accompany and consult during the work and requires requesting attachers to perform work in accordance with applicable federal, state, and local laws and regulations and applicable engineering and safety standards, which enables existing attachers that are unsatisfied with make-ready work done to its attachments to bring a complaint to the Commission or to bring a civil action against the requesting attacher.

Finally, due to the fact that existing attachers have 60 days to perform the make-ready work themselves and the other protections that the updated self-help remedy provides, Committee members did not think it necessary for requesting attachers to put up a performance bond or to provide additional indemnification to existing attachers, which are not required to take such actions under the existing self-help make-ready requirement.

Conclusion:

Proposed Rule Change: To amend §1.1420 and 1.1422 as follows:

§ 1.1420 Timeline for access to utility poles.

(a) The term "attachment" means any attachment by a cable television system or provider of telecommunications service to a pole owned or controlled by a utility.

(b) All time limits in this subsection are to be calculated according to § 1.4.

(c) Survey. A utility shall respond as described in § 1.1403(b) to a cable operator or telecommunications carrier within 45 days of receipt of a complete application to attach facilities to its utility poles (or within 60 days, in the case of larger orders as described in

paragraph (g) of this section). This response may be a notification that the utility has completed a survey of poles for which access has been requested. A complete application is an application that provides the utility with the information necessary under its procedures to begin to survey the poles.

(d) Estimate. Where a request for access is not denied, a utility shall present to a cable operator or telecommunications carrier an estimate of charges to perform all necessary make-ready work within 14 days of providing the response required by § 1.1420(c), or in the case where a prospective attacher's contractor has performed a survey, within 14 days of receipt by the utility of such survey.

(1) A utility may withdraw an outstanding estimate of charges to perform make-ready work beginning 14 days after the estimate is presented.

(2) A cable operator or telecommunications carrier may accept a valid estimate and make payment anytime after receipt of an estimate but before the estimate is withdrawn.

(e) Make-ready. Upon receipt of payment specified in paragraph (d)(2) of this section, a utility shall notify ~~immediately and in writing all known~~ entities with existing attachments that may be affected by the make-ready of the need for and nature of make-ready work. For attachments in the communications space, the notice shall and.

~~(1) For attachments in the communications space, the notice shall:~~

~~(i) Specify where and what make-ready will be performed.~~

~~(ii) Set~~ set a date for completion of make-ready by such entities that is no later than 60 days after notification is sent (or 105 days in the case of larger orders, as described in paragraph (g) of this section). For wireless attachments above the communications space, the notice shall set a date for completion of make-ready that is no later than 90 days after notification is sent (or 135 days in the case of larger orders, as described in paragraph (g) of this section). A utility shall provide a cable operator or telecommunications carrier requesting attachment with a copy of such notification and the contact information of entities with existing attachments that may be affected by the make-ready, and thereafter a cable operator or telecommunications carrier

requesting attachment shall be responsible for all further notifications to, and coordination with, such entities except as may be otherwise directed by the utility.

~~(iii) State that any entity with an existing attachment may modify the attachment consistent with the specified make-ready before the date set for completion.~~

~~(iv) State that the utility may assert its right to 15 additional days to complete make-ready.~~

~~(v) State that if make-ready is not completed by the completion date set by the utility (or, if the utility has asserted its 15-day right of control, 15 days later), the cable operator or telecommunications carrier requesting access may complete the specified make-ready.~~

~~(vi) State the name, telephone number, and e-mail address of a person to contact for more information about the make-ready procedure.~~

~~(2) For wireless attachments above the communications space, the notice shall:~~

~~(i) Specify where and what make-ready will be performed.~~

~~(ii) Set a date for completion of make-ready that is no later than 90 days after notification is sent (or 135 days in the case of larger orders, as described in paragraph (g) of this section).~~

~~(iii) State that any entity with an existing attachment may modify the attachment consistent with the specified make-ready before the date set for completion.~~

~~(iv) State that the utility may assert its right to 15 additional days to complete make-ready.~~

~~(v) State the name, telephone number, and e-mail address of a person to contact for more information about the make-ready procedure.~~

~~(f) For wireless attachments above the communications space, a utility shall ensure that make-ready is completed by the date set by the utility in paragraph (e)(2)(ii) of this section (or, if the utility has asserted its 15-day right of control, 15 days later).~~

(g) For the purposes of compliance with the time periods in this section:

- (1) A utility shall apply the timeline described in paragraphs (c) through (e) of this section to all requests for pole attachment up to the lesser of 300 poles or 0.5 percent of the utility's poles in a state.
- (2) A utility may add 15 days to the survey period described in paragraph (c) of this section to larger orders up to the lesser of 3000 poles or 5 percent of the utility's poles in a state.
- (3) A utility may add 45 days to the make-ready periods described in paragraph (e) of this section to larger orders up to the lesser of 3000 poles or 5 percent of the utility's poles in a state.
- (4) A utility shall negotiate in good faith the timing of all requests for pole attachment larger than the lesser of 3000 poles or 5 percent of the utility's poles in a state.
- (5) A utility may treat multiple requests from a single cable operator or telecommunications carrier as one request when the requests are filed within 30 days of one another.

(h) A utility may deviate from the time limits specified in this section:

- (1) Before offering an estimate of charges if the parties have no agreement specifying the rates, terms, and conditions of attachment.
- (2) During performance of make-ready for good and sufficient cause that renders it infeasible for the utility to complete the make-ready work within the prescribed timeframe. A utility that so deviates shall immediately notify, in writing, the cable operator or telecommunications carrier requesting attachment and other affected entities with existing attachments, and shall include the reason for and date and duration of the deviation. The utility shall deviate from the time limits specified in this section for a period no longer than necessary and shall resume make-ready performance without discrimination when it returns to routine operations.

(i) If a utility fails to respond as specified in paragraph (c) of this section, a cable operator or telecommunications carrier requesting attachment in the communications space may, as ~~specified in~~consistent with § 1.1422, ~~hire a contractor to~~ complete a survey. If make-ready is not complete by the date specified in paragraph (e)(1)(ii) of this section, a cable operator or telecommunications carrier requesting attachment in the communications space may, consistent with § 1.1422, ~~hire a contractor to~~ complete the specified make-ready.:

~~(1) Immediately, if the utility has failed to assert its right to perform remaining make-ready work by notifying the requesting attacher that it will do so; or~~

~~(2) After 15 days if the utility has asserted its right to perform make-ready by the date specified in paragraph (e)(1)(ii) of this section and has failed to complete make-ready.~~

§ 1.1422 Contractors for survey and make-ready.

~~(a) A utility shall make available and keep up to date a reasonably sufficient list of contractors it authorizes to perform surveys and make-ready in the communications space on its utility poles in cases where the utility has failed to meet deadlines specified in § 1.1420.~~

~~(b) If a cable operator or telecommunications carrier hires a contractor for purposes specified in § 1.1420, it shall choose from among a utility's list of authorized contractors.~~

~~(ae) A cable operator or telecommunications carrier that hires a contractor for undertakes a survey or make-ready work pursuant to § 1.1420(i) shall provide a utility with a reasonable opportunity for a utility representative to accompany and consult with ~~the authorized contractor~~ and the cable operator or telecommunications carrier during either of those activities.~~

~~(b) A cable operator or telecommunications carrier that undertakes make-ready work pursuant to § 1.1420(i) shall:~~

~~(1) Provide entities with existing attachments that may be affected by the make-ready with a reasonable opportunity to accompany and consult with the cable operator or telecommunications carrier during that work; and~~

(2) Ensure that any work it performs on existing attachments are in accordance with applicable federal, state, and local laws and regulations and applicable engineering and safety standards.

(cđ) The consulting representative of an electric utility may make final determinations, on a nondiscriminatory basis, where there is insufficient capacity and for reasons of safety, reliability, and generally applicable engineering purposes.

Fees and Rates Committee: Proposal #1

Hurdles: Commingled Services

Working Group Vote: **Pass** (20 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

Using the FCC's current definitions for telecommunications, cable, and broadband, no additional clarification of those rates beyond the cable rate and the telecommunications rate are justified or needed. As it stands today the telecommunications rate and the cable rate are equal.

Issue/Background:

The potential exists for future uncertainty about rates for commingled services. Access and rates for pole attachers depends on the FCC's classification of the provided services.

Application of Proposal:

In the event the FCC reclassifies broadband internet access services as non-Title II services, the FCC may need to take further action on the rates certain attachers pay for their services. However, as it stands today, only the telecommunications rate and the cable rate are needed.

Conclusion:

Using the current telecommunications, cable and broadband definitions set forth by the FCC, only the cable rate and the telecommunications rate are needed.

Fees and Rates Committee: Proposal #4

Hurdles: Rate Disclosure

Working Group Vote: **Pass** (20 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

Publishing contact information on the public website for the trade association representing electric cooperatives will facilitate an attacher's ability to determine pole attachment rates, terms and conditions.

Issue/Background:

On occasion, specifically with electric cooperatives, pole attachment rates and related information are not easily obtainable from the pole owner.

Application of Proposal:

To address the desire of pole attachers seeking to deploy broadband services to obtain pole attachment information from electric cooperatives, the National Rural Electric Cooperative Association (NRECA) should publish on its public website the name and contact information for the electric cooperative manager in each state. A provider then could contact the relevant statewide manager to receive information about an electric cooperative in the state of interest and ascertain its pole attachment rates, terms and conditions.

Conclusion:

NRECA shall publish on its public website contact information for statewide electric cooperative managers to facilitate a pole attacher's ability to determine pole attachment rates, terms and conditions.

Other Infrastructure and Transparency Committee: Proposal #1

Common Infrastructure Efficiencies

Working Group Vote: **Pass** (17 Yes, 0 No, 0 Abstain)

Executive Summary of Proposal:

There is a need to explore the means by which broadband infrastructure deployment is either hampered or encouraged through the creation of various efficiencies. The goal of this proposal is to uncover the proper incentives that the FCC can introduce into the process of building and maintaining infrastructure that will facilitate optimal broadband deployment.

Issue/Background:

An important part of this exercise will be developing means for reliably determining the ownership of existing infrastructure. Frequently, ownership of existing infrastructure is not clear. At a minimum, we should be able to ensure that firms wanting to do a new buildout should be able to determine a clearly identified owner through an easily accessible database, public records, or a similar resource.

In addition to examining the means by which governmental units can decrease the transaction costs of traditional siting (*e.g.*, on utility poles), there should be an examination of the means by which these governmental units can best incentivize private businesses to make portions of their buildings available for siting wireless equipment. This could take the form of, for instance, leasing agreements with the owners of commercial and nonprofit buildings to allow for the installation of various wireless facilities. The role of the governmental unit in this regard would be as facilitator to optimize the amount of private space used for wireless deployment.

Finally, we seek to promote the deployment and utilization of “creative” common infrastructure elements such as shared messenger wire, shared fiber sheath, shared duct, shared communications hut, and shared trench. Relatedly, if any government or corporation is building out new infrastructure it should be carrying some form of 5G-enabling technology through the aforementioned shared resources.

Application of Proposal:

In order to achieve the objective of encouraging infrastructure efficiencies, we propose that the FCC implement the following policies relating to infrastructure sharing and scheduling improvements that could be used to offset the costs associated with developing additional infrastructure.

General Challenges to Competition

There are a number of challenges involved in promoting competitive efficiencies.

- Ownership – See the proposal for a common infrastructure database.
- Siting considerations - *e.g.*, for wireless / 5G infrastructure.

Subject Facilities & Specific Challenges to Competition

The following list of structures represents the likely targets for the FCC to focus on when encouraging competitive access for this proposal. Each entry should contain any competitive challenges that arise as a specific feature of particular hardware.

Importantly, the goal of this proposal is to provide economic incentives that help to align the interests of various private parties so that they can voluntarily reach the most economically efficient results. By way of example, increased pole attachment rates could influence pole owners to install more capacity. Colocation on macro towers was very effective in many areas of the country, since equipment was installed on transmission towers that were not regulated, with the two parties agreeing to terms without government oversight. Lighting poles could work the same way. Other examples:

- Utility poles
- Messenger wires
- Trenches
- Sheaths
- Ducts
- Buildings used for antennas
 - Public buildings

- Private buildings
- Buildings used for signal regeneration
 - Space offered in public buildings
 - Private colocation/regeneration facilities
 - Private data centers
 - Space offered in private buildings
- Alternative public structures
 - Traffic lights
 - Lamp posts
 - Utility towers
 - Water towers
 - Bridges
 - Radio towers
 - Community centers

Conclusion:

We recommend the Commission find ways to encourage private and public entities interested or involved in the deployment of broadband Internet access service in a community to find ways to make such deployment plans known to others in the community, consistent with the interests of the parties to keep certain aspects of plans private for competitive reasons or for the public safety.

The purpose of such greater disclosure would be to facilitate opportunities for parties not involved in one entity's deployment plans to have the opportunity to talk with such entity to identify, prior to construction, mutually agreeable opportunities to share in the cost of such deployment or the use of the deployed broadband infrastructure. The benefits of such increased communication can result in a more timely and less costly deployment. It can lead to opportunities for both parties to share in the deployment costs for the installation of their own infrastructure, such as sharing the cost of trenching so each party can install its own conduit and/or fiber. It can promote the installation of infrastructure necessary for deployment (*e.g.*, poles, conduit, ducts, etc.) by one party that could be used by others in the future, such as the

installation of more ducts, more space in conduit, or poles taller than would otherwise have been installed. Furthermore, it could lead to the deployment of sufficient quantities of fiber that could be used by others in the future.

While the purpose of this proposal is to facilitate for opportunities for parties to work together, this proposal shall not be construed to require the Commission to directly or indirectly require any provider to spend money that it otherwise would not spend to install infrastructure for shared use, or to require a provider that has invested private money in its infrastructure to share such infrastructure with others (unless otherwise allowed or agreed).

Other Infrastructure and Transparency Committee, in Conjunction with the Methods and Practices Committee: Proposal #2

Common Database Proposal

Working Group Vote: **Pass** (13 Yes, 3 No, 2 Abstain)

Executive Summary of Proposal:

This proposal provides high-level information for the development of a common database to house data concerning infrastructure element projects. This document addresses the problem of a lack of knowledge regarding the ownership of current and planned infrastructure element projects, the lack of coordination by infrastructure builders, and a lack of cost efficiencies that is a possible byproduct of the first two problems. We will present one use case for the proposed database as an example of its intent.

1. A database should be built and populated to adequately represent the available common infrastructure elements, including routes, locations and rights-of-way.
2. This database would be commissioned by the FCC as a public resource, with its development to be funded by the user community in the form of usage fees or licenses. This database should be built and operated by industry experts but overseen by the FCC in the context of a public/private partnership.
3. This database could be developed as an aggregation of existing databases, or information from different databases, currently operated by owners as well as a new subset of databases covering those elements not currently recorded by the owner.
 - a. If an owner provides database access, that owner should be compensated by usage fees, upcharges in rental fees, or federal funds.
 - b. If an owner undertakes data entry in a new database, that owner should be compensated by usage fees or federal funds.
 - c. Operators of a public database should be compensated for their development efforts by usage fees or federal funds.

4. Population of this database would be encouraged by requiring Federal Program participants - those regulated as well as those receiving funding - to submit entries to the database.
5. The use of the database for efficient access to basic pole information, such as pole locations, specifications and attachments, would be balanced against respecting the need for security by the pole owners. This database would be a clearinghouse for all necessary information that a new attacher would need in order to efficiently plan for its attachment to another entity's poles.
6. Another use of this database would be to manage workflow and to track progress on approved attachment projects by incorporating workflow automation to improve the consistency, efficiency and speed of the pole attachment process.
7. It is recognized that the costs of this database will be substantial, and that implementation and operation may require federal funding or congressional allocation.
 - a. There are hundreds of millions of elements to be recorded and maintained, and the duration and interest in data entry can only be accomplished through incentives.
 - b. Until basic data is available, usage fees will be insufficient to fund development, so a development fund may be required to get the system to operating capacity. This may require a fund similar to the Highway Fund used to develop the Interstate Highway System.

Issue/Background:

The primary issue that this proposal addresses is the lack of knowledge of and coordination among infrastructure projects that often leads to a lack of efficiency and a possible significant waste of resources when deploying new infrastructure. Currently, there is simply no one place to go to determine infrastructure ownership or to get information about current and planned infrastructure projects. This lack of consolidated knowledge directly hinders one of the BDAC's stated goals: transparency. Since broadband access, mobile and otherwise, is becoming (or has already become) a critical utility, it is crucial that the government and corporate partners not only innovate regarding technical factors, such as spectrum wavelengths and how signals are transmitted across vast stretches of land, but also in the way that data is collected and

disseminated to make the deployment of infrastructure as cost- and schedule-efficient as possible.

As an example, there is a serious lack of quality information on poles as well as the processes and forms that pole owners require for new attachments to such poles. Current pole attachment and maintenance processes are antiquated, and necessary information is difficult to find. Processes often fail to take advantage of technological innovation, and even basic computer capabilities, to streamline and expedite broadband deployment.

Lack of Core Pole Data

Many utility pole owners, perhaps most, do not maintain a database of their own pole infrastructure that is readily accessible electronically. Some utilities also do not have accurate or complete basic information essential for attachers regarding any given pole:

- Who owns the pole?
- Is there a joint owner?
- Who is (are) the joint owner(s)?
- What is the height of the pole?
- What access to power is available?
- What are the current attachments and their configuration? (*i.e.*, height of attachment(s), type of equipment or cable attached, etc.)
- Who are the current attachers?
- What is the structural state of the pole (*e.g.*, age, type of material)
- What are the pole specifications and condition (based on last inspection)?

This lack of accessible, standardized pole data dramatically increases the uncertainty, cost, and time for any potential new attacher, which limits competition in the marketplace. This also increases the risk of accidents, failure of poles, and damage to any existing attacher's equipment.

Lack of Clear Information Regarding Attachment Processes and Forms

In addition to a lack of basic pole data, many utility pole owners do not have attachment process information that is readily accessible electronically. A multitude of pole owners can serve the

same geography: municipal owners, investor-owned utilities, and telecommunications companies, each having their own processes and data management approaches.

The processes often include many steps, each of which can take weeks or even months. A problem in communication or information can return an attacher to the very beginning of the application process, which can occur months into the process and only then to result in the determination that a pole is unavailable. The processes vary with each utility, and even within different departments of the same utility.

Some of the specific processes and related information that often are not available include:

- What design requirements does the pole owner have?
- What are the load study requirements by pole owner (to avoid multiple iterations incurring additional cost, time and delay)?
- What is the pole owner's application form?
- What is the pole owner's attachment process?
- What is the cost of attachment (recurring and non-recurring), and who are the contact points for the pole owner?
- What RF requirements does the pole owner have?
- What is each attacher's application form?
- What is each attacher's attachment process? (For wireless attachments, the process is often held up for months as the pole owner amends or rewrites its process to handle a new physical and technical format.)
- What are the contact points for each attacher?

The current written information given to prospective new attachers often is so opaque and varied (*i.e.*, not using standardized terminology) that many utilities require attachers to have their employees and contractors trained by the utility in how to manage the attachment process with that utility. This opacity includes information about which contractors are authorized to do which work in which space on the poles, and how to work with those contractors.

Having this information readily available and organized in an effective way would have an impact on all of the BDAC charges and deliverables by facilitating effective information sharing to enable actions and decisions within and among all key stakeholders. Depending on the model

for providing access, this database could be maintained at little to no net cost to the government and its value could be funded by the users under supervision of the Commission.

This proposal addresses a method for increasing competitive access to broadband infrastructure. The database application is a recommendation for faster and more efficient common/competitive access to broadband to promote transparency and information sharing to make actionable data available to the right parties at the right time. Additionally, it would likely promote fair and open negotiations around competitive use due to increased transparency. We will use some attachment process improvements to describe the advantages of the database and recognize that, once it exists, this database has substantially more uses.

Application of Proposal:

This proposal provides high-level information for a common database to be developed that would house data concerning infrastructure projects. This proposal addresses the problem of a lack of knowledge regarding the ownership of current and planned infrastructure projects, the lack of coordination between infrastructure owners and builders, and potential cost efficiencies by resolving the first two problems.

First and foremost, the ownership of the proposed database must be established. Since this database will consist of a combination of the data structure, access methods, and content, we propose that the development of the system (that is, the data structure and access methods) be a separate matter from that of populating the database, which would best be developed in a private setting under guidance of the FCC. We propose that population of the database be encouraged by schedule, funding, and regulatory incentives controlled by the FCC and will address these issues separately.

Development of a complex data system is an undertaking that will require a dedicated funding source. Since this data will be of great use to the “attacher”, the on-going costs of operating, maintaining and administering such a system could be covered by “use fees” imposed on data users, such as the “dip” fees charged to users of the Line Information Database. This commercial operation could be maintained by industry, but the initial investment of development would be made difficult by the likely slow adoption by the content holders. We propose that the initial

development be a publicly funded, privately developed system or systems that are grant-funded with very specific objectives and requirements.

Database content can only be derived from the owners of the content elements. These elements include routes, poles, vaults, buildings, manholes, rights of way, and the like, are recorded privately by industry, and can become “broadband common infrastructure elements”. The location of the elements on a map, and the nature, ownership, usage, and occupancy of such elements constitute information that developers need to efficiently plan and deploy. We propose that the FCC encourage industry to supply this data by using funding, schedule improvement, and regulatory incentives. Once the development has been created, no project should be funded unless the required data is supplied as specified.

Attachers can contribute efficiently to database development and maintenance as well. To the extent that new elements are employed for broadband – or existing elements are touched for upgrades, audits, enhancements, or other reasons – the inclusion of such information can be effectively and efficiently included in the database by ensuring that each infrastructure element built, visited, or worked on includes a closeout package in which the “constructor” is required to verify that the data elements that they used are in fact accurate and up-to-date in the database. In the case of utility poles, for example, the “constructor” could be the pole owner doing a standard audit visit, an existing attacher moving or adding equipment, or a new attacher installing new facilities. If the “constructor” is not the owner of the element, the owner would have the ability to review and confirm any entries. Quality audits may be suggested as an enforcement mechanism.

FCC Ownership

Data content, data control, and data access must be maintained by the FCC or its authorized agent. The applications and structures can be maintained by industry, and operationally funded by use fees, but the data content becomes a national interest and should be maintained as such.

Compensation

Once the database and access methods are determined, the system should be maintained by usage fees. The initial four years should be federally funded by a program intended to progress to a no-cost operation.

The Application

This section outlines the high-level details of the database. For the purpose of this document we will use the word “database” to mean an environment that encompasses a database (data management system), geographic information system and analysis capabilities, and a user-friendly interface to input, search and manage infrastructure element data.

Application Data

Multiple project types could be tracked in the application:

- Existing infrastructure elements
- Currently active infrastructure element projects
- Proposed and future infrastructure projects

There are databases in existence for towers and tower coverage, and this proposed database should not attempt to include tower data. Routes that are used to access towers could be contained here to facilitate tower utilization.

For all types the following valuable data would be tracked and catalogued:

- **Location** – This will likely be best accomplished by having a Geographic Information System (GIS) application within the application environment to ensure the location data is accurate.
- **Type** – Pole, box, bridge, building, etc.
- **Size/Dimensions** – The size and dimensions of the element
- **Features** – To include cabling, access features, etc.
- **Currently Deployed Utilities** – *E.g.*, fiber optic cable, electrical wiring, transformers, etc.

- **Possible Uses/Current Use** – Structural data to indicate what possible uses this element could accommodate and what it currently is being used for
- **Owner/Decision Maker** – Who owns and/or maintains this element
- **Owner/Decision Maker Contact Information** – The best way to contact the owner/decision maker about this element
- **Known Permitting or Licensing Constraints** – This would communicate currently known future/upcoming permit, licensing and other constraints as well as those that are currently in place for this element. Some other considerations:
 - When does the permit expire?
 - When is the next City Council meeting to discuss new projects?
 - When is the next architectural review Board meeting?
 - Notifications and reminders for expiring permits, licenses, etc.
- **Other Key Stakeholders** – This could include architectural review boards, homeowners associations, state and local entities, etc.
- **Environmental Factors** – Information such as:
 - What capabilities does this element have to protect against severe weather?
 - What is the typical environment (heat, cold, humidity, pressure, etc.)?
 - What are known severe weather factors (hurricane, floods, tornados, etc.)?
- **Community Concerns** – This section could take into account local data, to include the following:
 - Adoption rates
 - Current community concerns
 - Specific nuances and concerns of various communities of color, ethnic groups, federal trust/tribal land, etc.
 - Neighborhoods and communities of color and how projects will impact these neighborhoods (positively and negatively)
 - Other demographic considerations

Some key features of the application should include:

- Search and filter capabilities by data elements listed above and:
 - By Location

- By Type
- By Features
- And other criteria
- Data Management
- Reporting
- Analytics
- Basic Workflows (create, review, approve, notifications)
- Security/Access Control
- Ability for external entities to input data for review and population in the system
- A mechanism to advertise or disseminate information to interested stakeholders for them to take action
 - Perhaps a section of the FCC public website (or other websites) could publish this information for public consumption with a link to access the data system with a username/password
 - Custom notifications also can be set up by those with access to the system

Data Collection

There are three types of stakeholders that could provide valuable data to this database, and each would be represented in the category of past and existing infrastructure elements and future/point forward infrastructure elements:

- Government entities that have built or own infrastructure elements and are willing to supply information to the database (assuming this is all government entities)
- Corporations or individuals that have built or own infrastructure elements that are **willing** to supply information
- Corporations or individuals that have built or own infrastructure elements that are **unwilling** to supply information

One main concern or roadblock to ensuring a comprehensive common database is the collection of data from current infrastructure owners who are unwilling to supply information for the database. There are numerous benefits to having this information, including but perhaps not limited to:

- Cost savings
- Schedule efficiencies
- Space and land utilization efficiencies
- Planning efficiencies

Database content can only be derived from the owners of the content elements through encouraged participation. These elements include routes, poles, vaults, buildings, manholes, rights of way, and the like, are recorded privately by industry, and can become “broadband common infrastructure elements”. The location of the elements on a map, and the nature, ownership, usage and occupancy of such elements are information that developers need to efficiently plan and deploy. Owners of the subject data elements must be positively compensated for either entering their data or making their database available to constructors, and we propose that the FCC encourage industry to supply this data by implementing any or all of the following mechanisms:

- Fee Royalties - Current owners would receive some type of royalty or other monetary benefit from use of their infrastructure elements as determined by multi-party (*i.e.*, government, civic groups, corporations, and infrastructure owners) fair and mediated negotiations.
- Rental Upcharges – Allow owners that supply data and database access to charge a higher rental fee for their infrastructure elements by adding a data management surcharge.
- Schedule Improvement – Any permits or regulatory approvals required by participants would be expedited if the participant has entered their element data into this system. As a part of permitting and/or any necessary approvals, parties should be asked to approve the sharing and input of pertinent data into the proposed application. If they agree, the incentive will be an expedited initial and renewal permit/license process.

Funding Approaches

The quantity of owners, users, and database elements included in this discussion are substantial, to say the least, involving potentially thousands of owners, thousands of users, and hundreds of millions of elements. These numbers indicate that the database will be complex, ownership will be distributed, and content will be in a constant state of change. It is a significant undertaking

that, in the course of its lifetime, will consume considerable cost of development. The usefulness of such a database will be defined in the breadth of its content, and, to become useful, this database will need to be funded by the public. To reach operational stability, we recommend three possible approaches:

1. Fee-Based Approach – In the fee-based approach, any user of the database will be charged a fee, and those fees will be distributed to the database supplier and data content supplier. If an infrastructure owner offers to supply database access, that access will be charged at a regulated rate, and the fee will be returned to the owner. This may be done as a usage rate or as an increase in rental fees as determined by the developed regulation.
2. Fund-Based Approach – In the fund-based approach, the FCC petitions Congress for a fund with which to develop the database and compensate owners for their data. Initially, the fund will be used to pay for a database development by one or more providers, and those providers will be compensated from the fund for database development, database population, and database maintenance. Owners of data will be compensated from the fund to supply data in a usable format.
3. Combined Approach – In a combined approach, a fund will be petitioned by the FCC to develop a database and to compensate the developers and data owners for their content. The populated database will then be managed and maintained by the developer, who will be compensated for data access by usage fees. This method allows for private owners to offer their existing databases for public access at a rate consistent with the developed databases.

Actions to Be Tracked

The FCC will need to track certain events in any projects that are under its supervision to ensure that the database managers are aware of any new activity. By notifying the database operators, the FCC can ensure the database is maintained as a living entity. The following events should be tracked and notified by the FCC:

- Federal infrastructure procurements
- State and local infrastructure procurements
- State and local permitting (commercial and residential)
- Self-reported corporate projects

Security and Access

Regarding the other entities (government, enterprise and other willing parties), the database should be constructed in such a way that external parties can submit information for review and population within the system. Access to the data should be controlled by multiple security methods to ensure that no single entity can download or access the entire data set, and the data access is based on appropriate security validation, need-to-know, and other criteria, safeguards and requirements. This includes controlling access to layers of the data across different geographies in the system. As with any database, user access should be controlled by username and password, user credentials should be regularly reviewed, and encrypted data flows should be required.

Sample Workflows

1. Process Oversight. How to use the database to oversee the make-ready process.

The attachment process would be managed in the database. This could include elements, for example, of the Connecticut joint pole authority’s Notify system and any FCC-specified time periods. This also would allow all attachers to learn and use a single system for data entry and would make timing and process transparent and readily measurable. For example:

- Notice of a new attacher and their proposed work.
- Attachers can contract directly with approved contractors, including scheduling work.
- Notice by a contractor that make-ready work will be performed (and the specific work as necessary). The notice by the contractor would also allow the pole owner to track which contractor is doing the work.
- Notice that work has been performed, thereby allowing inspection.
- Each other step in the process, to include:
 - Load studies, if required.

- Design studies, if required. [Arguably these should be simplified, so that an attacher meeting a basic loading test or using a previously approved design would be able to proceed without waiting for concurrence.]
- Database tracking would also provide transparency in the steps each pole owner requires, and how long each step takes in the real-world setting, providing a factual basis easily researched for process and regulatory improvements.
- Complaints about work quality problems and any resolution of those complaints could be used to manage contractor quality control through programs such as “three-strikes”.

2. Contractor Qualification & Oversight: Contractor Qualification and Oversight could also be managed through the database.

In another proposal this committee recommends the adoption of one-touch make-ready is recommended, where the pole owner approves contractors to allow single-touch make-ready for all make-ready work. Ideally, a group of contractors would be common among attachers and pole owners, so that each stakeholder would be satisfied that their interests are addressed because each contractor is one of their contractors. This has to be administered either by the current administrator, the pole owner, or by a third party manager. This proposal recommends an unencumbered third party working in coordination with the pole owner.

Qualification Determined By Pole Owner (Per Contractor Qualification Subtopic)

- This would support the process outlined in the Contractor Qualification Proposal.
- Each pole owner enters into the database their approved contractors, identifying whether the contractor is approved for “simple” or “complex” work, so that a new attacher can identify which contractors can work on which projects in the power space, the communications space, and/or for wireless work. The contractor’s contact information would be readily available to attachers.
- Attachers review the approved contractor list and may use any contractor approved by the pole owner.
- Requirements for approval of contractors would reside on the database.

- The attacher could propose in the database any additional contractor for the pole owner to approve, and the pole owner would be given a timeline to respond to the request. After the time period expires, no response would be deemed an approval.
- Concerns about work performed, including indemnity requests, would be entered into the database.
- Contractor disqualification could be housed in the database as well.

3. The Commonwealth of Virginia is undertaking an infrastructure project within ZIP Code 20136, specifically:

- Program Resource identifies State RFP for infrastructure project
- Program Resource enters new record/case in system with all available information
- Program Resource requests additional information from the State agency
- Once the announcement is published, automated notifications would go out to stakeholders who have indicated that ZIP Code 20136 is of interest to their company.
- Corporate partner accesses system, searches for projects happening in Virginia within ZIP Code 20136, and finds this project, and possibly others
- Corporate partner is able to coordinate with State agency as well as potentially with contractor to explore joint infrastructure deployment and/or use of infrastructure being deployed for cost and schedule efficiencies.

Conclusion:

Creating a common database that contains a comprehensive set of information about existing and planned infrastructure element projects would create a collaborative environment to increase common use efficiency, facilitated by information sharing and transparency. A standardized, accessible database and automated workflow tools for pole and attacher asset and process information should be the foundation of a much more efficient and faster broadband deployment system. This should include a set of pole attachment and contractor qualification systems that are built into the database to provide a much clearer way for the whole attacher ecosystem to get work done in a safe, efficient and predictable manner. The proposal acknowledges that the database undertaking would be a massive and complex effort, for which

continued study and development would be essential, perhaps through other working and development groups with support and oversight from the FCC.

CATEGORY III PROPOSALS

Three proposals remaining in draft and under discussion by the Working Group and to be escalated to the BDAC for formal consideration at a future meeting:

1. Other Infrastructure and Transparency Committee (#3) – Simplifying Regulatory Delays
2. Other Infrastructure and Transparency Committee (#4) – Maximizing Use of Broadband Infrastructure Eligible for Subsidy (E-rate)
3. Other Infrastructure and Transparency Committee (#5) – Implementation Advisory Group

Other Infrastructure and Transparency Committee: Proposal #3

Simplifying Regulatory Delays

Under active discussion

Executive Summary of Proposal:

This proposal addresses the excessive delays and costs imposed by the various layers of government that typically are involved with deploying broadband infrastructure projects. Since crossing jurisdictional boundaries of municipalities, counties, states and tribal grounds often incurs differing layers of regulation, the intent is to organize the tiered regulators so that overlap is minimized. By using incentives and/or preemptive regulations a more efficient and transparent process can emerge, ideally reducing project and permitting complexity, streamlining the oversight of each level of government, and positively impacting constructors' and providers' project timelines and costs.

Issue/Background:

When a project is initiated through a federally funded program, particularly a broadband infrastructure project, it often covers a diverse geography that involves several tiers of government control and regulation. The U.S. Code on Pole Attachment states:

“(c) State regulatory authority over rates, terms, and conditions; preemption; certification; circumstances constituting State regulation

(1) Nothing in this section shall be construed to apply to, or to give the Commission jurisdiction with respect to rates, terms, and conditions, or access to poles, ducts, conduits, and rights-of-way as provided in subsection (f), for pole attachments in any case where such matters are regulated by a State.

(2) Each State which regulates the rates, terms, and conditions for pole attachments shall certify to the Commission that—

(A) it regulates such rates, terms, and conditions; and

(B) in so regulating such rates, terms, and conditions, the State has the authority to consider and does consider the interests of the subscribers of the services offered via such attachments, as well as the interests of the consumers of the utility services.

(3) For purposes of this subsection, a State shall not be considered to regulate the rates, terms, and conditions for pole attachments—

(A) unless the State has issued and made effective rules and regulations implementing the State’s regulatory authority over pole attachments; and

(B) with respect to any individual matter, unless the State takes final action on a complaint regarding such matter—

(i) within 180 days after the complaint is filed with the State, or

(ii) within the applicable period prescribed for such final action in such rules and regulations of the State, if the prescribed period does not extend beyond 360 days after the filing of such complaint.”

This clearly defines the boundaries between state and federal regulations yet leaves a void in defining the control mechanisms associated with tribal, municipal, and county governments. It would be an effective measure to require that this sort of “declared control” be implemented at all levels to ensure that only one governing agency has the authority to regulate the environment in which these constructions occur. Further, this declaration of authority requires that the appropriate regulator issue a written statement of rules and requirements with which the constructor shall comply.

Should a level of government apply unreasonable control in the absence of an issued regulation statement, the burdened party should have an ability to address this issue with the Commission. The Commission in turn should be able to influence the controlling government by invoking certain measures to ensure the jurisdiction’s compliance.

Application of Proposal:

The execution of this proposal would require that minimum standards be developed for filing a regulation statement, including: a) establishing a standard for documenting the regulations, specifying which portion of the federal regulations are being designated and the format and content to constitute a properly documented regulation; and b) a resource plan sufficient to administer the regulations, outlining proof of proper manpower required to administer the volume of requests and defining the application, approval, and appeals processes.

Conclusion:

The purpose of this proposal is to limit the amount of layered regulation that typically occurs in a federally funded project which causes the entire hierarchy of government to assert responsibility and thereby impede broadband deployment and incur unnecessary time and expense delays. This explicit claim of responsibility was originally defined in federal code, for state preemption, and it would make sense that the ability for all levels of government to override federal code should be made available and enforced as a formal process. The formality of the process would limit the impact of a preemptive government action by causing the action to be organized, documented, and staffed.

Simplifying the tiered regulations amongst multiple jurisdictions using incentives and or preemptive regulations to create a more efficient and transparent process would reduce project complexity and streamline both government's role and the constructors'/providers' effort.

Recommendation:

- a) Withhold federal funding for roads, bridges, sidewalks, etc. from any state, local, or municipal project unless the following conditions are met:
 - Conduit for fiber optic cabling is placed in any open trench for providers' use;
 - Simplified procedures are in place for providers/constructors' to gain access to the conduit; and
 - The physical location of the conduit is mapped in GIS format.
- b) Establish a "one-stop shop" for all federal land permitting, perhaps located within the Commission, to streamline the permitting process for constructors/providers that seek

to deploy within or across federal lands to build out fiber or microwave infrastructure. Consolidate permitting for federal departments and agencies, such as the Bureau of Land Management, US Forest Service, Environmental Protection Agency, and the Department of Defense (to include the US Army Corps of Engineers), into a single function and office, and require that permitting decisions be made within a specified length of time, e.g., no longer than 120 days.

- c) Require constructors/providers that receive any form of federal assistance (*e.g.*, USF funding, grant funding, permitting assistance, access to public rights of way, etc.), participate in granular mapping efforts/program.

Other Infrastructure and Transparency Committee: Proposal #4

Maximizing Use of Broadband Infrastructure Eligible for Subsidy (E-rate)

Under active discussion

Executive Summary of Proposal:

Review, clarify, and revise, as necessary, program rules focused on accelerating broadband deployment and lowering the cost of broadband to community anchor institutions, such as schools, libraries and hospitals, etc., to ensure that use of the resulting infrastructure is maximized.

Issue/Background:

The E-rate program¹ provides discounts to schools and libraries to obtain telecommunications and Internet access at affordable rates. Available data indicates that the program has been largely successful in improving classroom connectivity in schools across the country, including in rural areas, as well as in facilitating connectivity at public libraries nationwide. In addition, the Healthcare Connect Fund² provides subsidies that discount eligible expenses for high capacity broadband for eligible healthcare providers. To comply with statutory requirements, these programs limit the eligible use of broadband services funded by the subsidy. For example, services provided to schools must be used for “educational purposes.”

The E-rate program has enabled high capacity broadband capability for school facilities and libraries in communities that otherwise have limited broadband connectivity. Similarly, the Healthcare Connect Fund has accelerated deployment of broadband to a range of healthcare institutions, including in rural communities. While these deployments have improved access for

¹ <https://www.fcc.gov/general/e-rate-schools-libraries-usf-program>

² <https://www.fcc.gov/general/rural-health-care-program#HCF>

students during the school day in schools, medical staff at medical facilities, and communities at large in public libraries, in many localities – particularly in rural areas and on tribal lands – the population at large has limited access to broadband connectivity in the home.

In many cases, students remain without access at home where either broadband service is prohibitively expensive or is not available at all. Others in the community are likewise unable to access the Internet at home. In these situations, the students without access are at an educational disadvantage – hence the “homework gap” – and adults without access are similarly disadvantaged leaving them unable to pursue online education, take advantage of online news and entertainment, apply for a job, or otherwise participate in the 21st century digital world. Today, in the United States, there are an estimated 34 million Americans without access to broadband, including 24 million in rural areas.

Application of Proposal:

This policy recommendation is aimed at further maximizing the value that can be derived from the program subsidization of facilities and services in affected communities by enabling use of excess capacity of the provisioned service for additional uses. Important public interest objectives are served by ensuring that all citizens have access to affordable 21st century broadband Internet. Allowing available capacity to remain underutilized serves only to continue to further disadvantage these communities.

While the program-subsidized broadband facilities are heavily utilized during the day, they are largely idle otherwise. This results in underutilization of available – and paid-for -- broadband capacity that could be exploited to the benefit of the community. Peak broadband usage for residential households typically occurs in the early morning, late afternoon, and evening. Under this recommendation, subsidy program rules would be reviewed, clarified, and revised as necessary to allow program-subsidized broadband capacity at schools, libraries, and healthcare facilities to be extended beyond the school or library premises for commercial use in the surrounding communities under the control of the relevant school or institution.

Technologies now exist that can enable the broadband capacity of the anchor institution to be made available wirelessly to the surrounding community. Several wireless technologies could be

employed to enable this extension. Extending these networks in this way would reduce costs of providing broadband connectivity to the surrounding community as additional backhaul capacity in many cases would not be required. Leveraging the capacity of the schools would therefore lower the cost of deployment into the surrounding area. Indeed, in one example³, Mid-Atlantic Broadband Communities Corporation and Microsoft, with support from the Virginia Tobacco Region Revitalization Commission have recently launched just such a program in Southern Virginia, aiming to connect more than 3,000 students in 1,000 homes by the end of 2017.

Extending the schools' capacity to the community in this way raises the possibility that the connectivity could or would be used for non-educational purposes. Additionally, the program rules are unclear on the degree to which service must be bound to the physical premises of the school. For this reason, Microsoft, Mid-Atlantic Broadband Communities, and other participants in the Virginia program initiated a petition for clarification of existing E-rate program rules in June 2016 in WC Docket No. 13-184, "Modernizing the E-rate Program for Schools and Libraries"⁴, which remains open.

Likewise, for libraries, it is unclear whether extending the service beyond the library premises would render the service ineligible for subsidy, and there are similar questions regarding use of healthcare institutions' broadband facilities. A review and possible revision of the program rules could clarify qualification criteria for such additional purposes, considering the totality of factors inhibiting broadband rollout, affordability, and uptake within the community. Accordingly, this policy recommendation is to review, clarify, and revise if necessary *all subsidy program rules* that apply to the provision of broadband infrastructure and services, with the goal of ensuring that the resulting infrastructure is maximally utilized.

³ <https://news.microsoft.com/2017/05/23/mid-atlantic-broadband-communities-and-microsoft-launch-new-homework-network-to-bring-thousands-of-students-online-in-rural-virginia/>

⁴ <https://www.fcc.gov/ecfs/filing/60001990439>

Under this recommendation, these anchor institution facilities could be extended for *commercial* use in the community, which would result in a “shared use” of federally funded infrastructure. Enabling this “shared use” would bring down costs for an operator to serve the surrounding community (and, potentially, the rates charged to the school or library) and would be in the public interest.

Conclusion:

Review, clarify, and revise, as necessary, program rules focused on accelerating deployment and lowering the cost of broadband to community anchor institutions, such as schools, libraries, and hospitals, to ensure that use of the resulting infrastructure is maximized. This recommendation is not intended to impact subsidy eligibility and competitive bidding for services. The FCC should:

1. Determine that subsidy-funded broadband service can be used beyond the institution’s physical premises as long as:
 - a) Use off-premises is consistent with subsidized purposes;
 - b) Use does not negatively impact or interfere with use for subsidized purposes, and,
 - c) Ensure that subsidy-funded broadband service does not negatively impact competitive offerings that are fully funded through private investment, use being limited to areas where:
 - i. There are not two or more competitive alternative wireline broadband offers; or
 - ii. Where only one competitive alternative wireline broadband offer is available, such competitive offer is only made available at a price greater than 125% of the average price for similar service available within the nearest census tract where there are two or more competitive alternative wireline broadband offers available; and
 - iii. Where there are not two or more competitive alternative wireline broadband offers available, a one-year notice of intent to make subsidy-funded broadband service available in the community pursuant to this recommendation shall be provided to potential commercial providers, and subsidy-funded broadband service will not be made available if two or more competitive alternative wireline broadband offers are made available within that time.

- d) To ensure protection of infrastructure investments this service will not be made available to any household already taking service from any wireline ISP, including those receiving CAF funding, or to any household where such service is available 30 days from initial request.
2. Determine that an ancillary commercial broadband offering may be offered that leverages the federally funded infrastructure and that is not subject to filtering controls that may otherwise be applicable, as long as:
 - a) Use is constrained to ancillary use of excess capacity, and
 - b) Subsidized use (with required filtering) would take priority. [Note, logically separating the ancillary use from the primary use and prioritizing the primary use would not be a Net neutrality violation as long as traffic management within each service complies with the rules.]
 - c) No contract awarded by an anchor institution prior to the Commission’s adoption of rules to implement this provision shall enable such ancillary commercial use; and, in awarding any contract issued after adoption of rules, an anchor institution shall undertake a competitive bidding process to select a service provider.
 3. Determine, based on available evidence of broadband utilization, that a certain portion of all residential broadband use is deemed “qualifying purposes”. Such a finding would reduce the need for potentially cumbersome accounting between qualifying primary use and ancillary use of the subsidized infrastructure.
 4. Determine that overall administration of the subsidy programs need not change in order to facilitate ancillary use of subsidized infrastructure as contemplated here. Eligibility criteria for subsidy should not change under this recommendation; however, the FCC should enact additional transition rules in the event of a change of provider to ensure that ancillary service users are also successfully transitioned to the new provider.
 5. Seek public comment on appropriate rules to implement the proposed recommendations via a Public Notice process.
 6. Seek public comment on whether an institution that is the beneficiary of a subsidy could also financially participate in an ancillary commercial service leveraging the subsidy-funded

infrastructure, and, if so, under what conditions. Such participation may result in further lowering service costs overall for the institution but may also raise conflict issues.

Other Infrastructure and Transparency Committee: Proposal #5

Implementation Advisory Group

Under active discussion

CONCLUSION

Working Group Recommendation to BDAC

Upon consideration of the proposals developed by its various Committees, this Working Group hereby formally recommends their adoption by the Broadband Deployment Advisory Committee.

Final Statement

The members of this Working Group appreciate the privilege and opportunity to participate in this process in support of the broader initiative to facilitate streamlined deployment of, and broader access to, high-speed broadband as a national strategic priority.