

AGENDA

Broadband Advisory Council Meeting

August 28, 2023

10:00 a.m. to 12:00 p.m.

In-Person Option:

Virginia, Maryland & Delaware Association of Electric Cooperatives Training Center
1293 Salem Church Rd
Palmyra, VA 22963

Virtual Option (via Microsoft Teams):

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 245 003 516 652

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|------|---|--|
| I. | Opening | |
| | a. Call to Order | Chairman |
| | b. Roll Call | DHCD Staff |
| II. | Consent Agenda | Chairman |
| | a. Approval of Minutes: June 9, 2023 Meeting | |
| III. | Office of Broadband Updates | Tamarah Holmes, Ph.D,
Director, Office of Broadband and Staff |
| | a. Virginia Telecommunication Initiative FY24 Proposed Guidelines and Criteria Overview | |
| | b. Broadband Equity, Access and Deployment 5-Year Plan Overview | |
| | c. Broadband Equity, Access and Deployment Volume 2 Overview | |
| | d. Line Extension Customer Assistance Program Updates | |
| | e. Other Updates | |
| IV. | Make-Ready Discussion | Council Members |
| V. | Public Comment | Chairman |
| VI. | New Business | Council Members |
| VII. | Adjournment | Chairman |

BROADBAND ADVISORY COUNCIL
UNAPPROVED MINUTES

June 9, 2023

10:00 AM

Virginia Housing Center

4224 Cox Road

Glen Allen, VA 23060

Virtual Option provided via Microsoft Teams

Members Present

Delegate Kathy Byron, Chair
Senator Ghazala Hashmi
Senator Lynwood W. Lewis
Delegate David Reid
Delegate Thomas Wright, Jr.
Delegate James Leftwich
Secretary Matt Lohr
James Carr
Mike Culp
Kristie Proctor
Casey Logan
Steve Sandy
Richard Schollman

Members Absent

Senator Jennifer Boysko, Vice Chair
Ray LaMura
Secretary Caren Merrick

Call to Order	Delegate Kathy Byron, Chair of the Broadband Advisory Council, called the meeting to order at 10:05 a.m.
Roll Call	Chandler Vaughan, Senior Policy Analyst at the Office of Broadband, called the roll and stated that a quorum was present.
Approval of Minutes: January 20, 2023 Meeting	A motion was made and properly seconded to approve the minutes of the January 20, 2023 meeting of the Broadband Advisory Council. The vote was unanimous to adopt the minutes as presented.
Office of Broadband Updates	Dr. Tamarah Holmes and Office of Broadband staff presented an update, including: the announcement of FY2023 Virginia Telecommunication Initiative awards, and the Office's activities under the Broadband Equity, Access, and Deployment (BEAD) Program, including common themes from listening sessions hosted by the Office and an overview of the components of Volume 1 of Virginia's Initial Proposal under the BEAD program, which includes the challenge process to identify all remaining unserved locations in the Commonwealth.

State Digital Opportunity Plan Work Session	Office of Broadband contracted support provided an overview of ongoing and upcoming efforts under the federal Infrastructure Investments and Jobs Act's State Digital Equity Planning Grant Program. This presentation included an overview of research and preliminary findings regarding gaps in broadband affordability and adoption for specific populations in the Commonwealth. The presentation also outlined upcoming stakeholder engagement activities, all of which play a critical role into understanding the entirety of the digital divide. These efforts will inform the development of Virginia's Digital Opportunity Plan.
Public Comment	Bob Nichols of Declaration Networks discussed challenges faced by his company on the Eastern Shore of Virginia. These challenges noted in expanding broadband access includes access to backhaul service and the cost prohibitive nature of connecting to existing fiber optic networks to build last mile broadband networks, especially when only one backhaul option is present.
New Business	<p>Delegate Byron offered the Broadband Advisory Council explore some of the challenges faced in broadband deployment. Mr. Carr offered to convene other council members to offer a presentation on the make-ready process at the next council meeting.</p> <p>Mr. Sandy requested an update on the Line Extension Customer Assistance Program. Delegate Byron noted the importance of this request also requested an update at the upcoming meeting.</p>
Adjournment	Upon a motion made and properly seconded, the meeting was adjourned.



Broadband Advisory Council

August 2023 Meeting

Department of Housing and Community Development

August 28, 2023



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
Partners for Better Communities



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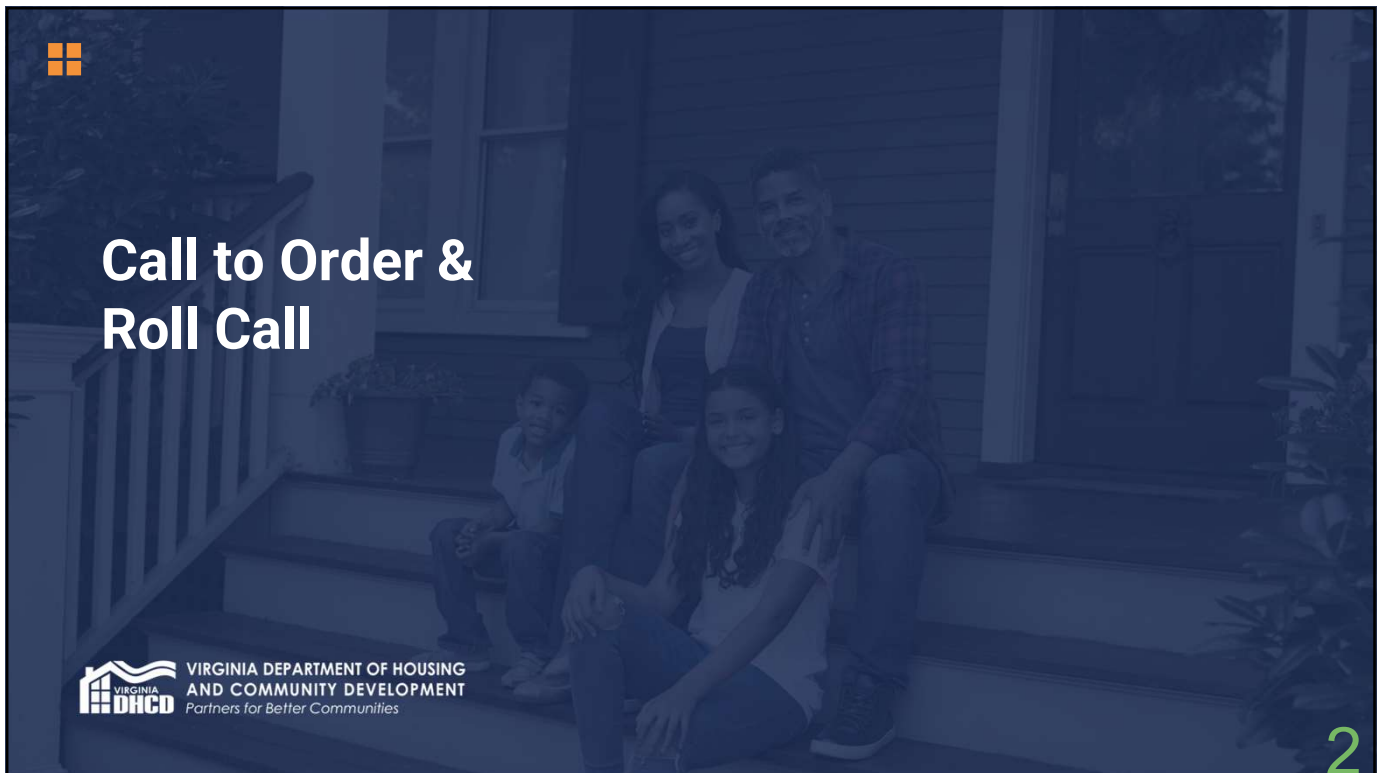
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Call to Order & Roll Call



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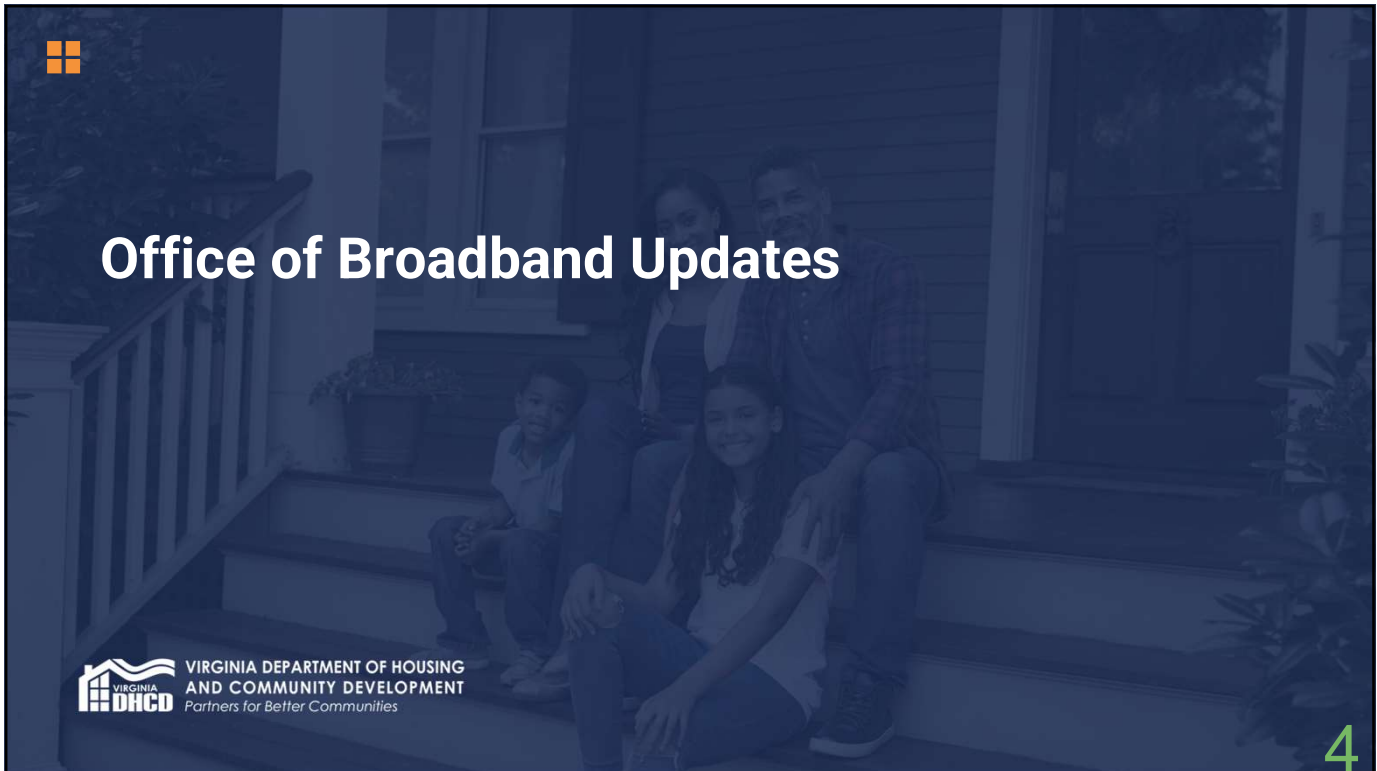



Approval of Minutes June 9, 2023 Meeting

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Office of Broadband Updates

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Virginia Telecommunication Initiative FY24 Proposed Guidelines and Criteria Overview



Virginia Telecommunication Initiative

The Virginia Telecommunication Initiative (VATI) extends broadband service to currently unserved areas. VATI prepares communities to build, utilize, and capitalize on telecommunications infrastructure with the goal of creating strong, competitive communities.



FY2017 – FY2023

235 Applications
Over \$1.2 billion requested

\$935 million awarded
\$1.2 billion million leveraged
Over 388,000 Locations in Project Areas
87 projects awarded across 80 localities



FY2023 VATI

35 Applications from 50 localities
\$302.1 million requested

\$59.5 million awarded (including letter of intent)
\$118.6 Million leveraged
5 Localities with No Previous VATI
27,771 connections



VATI Funding Availability & Sources

FY2017 – FY2021

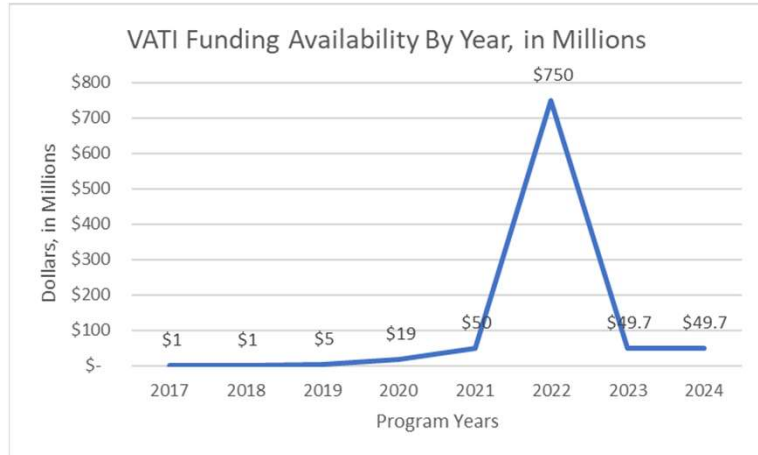
- State General Funds

FY2022

- State General Funds
- American Rescue Plan Act
 - State Fiscal Recovery Fund
 - Capital Projects Fund

FY2023 and FY2024

- State General Funds



Virginia Telecommunication Initiative Draft Guidelines and Criteria Input Sessions

Broadband Equity, Access, and Deployment (BEAD) Program Funding

The Department of Housing and Community Development's Office of Broadband has been designated by Governor Youngkin to serve as the recipient of, and administering agent for, any BEAD Program funding for the Commonwealth of Virginia. Both BEAD funding utilized for broadband deployment and state general funds will be regarded as under the umbrella of the Virginia Telecommunication Initiative; however, the Office of Broadband will invite proposals for funding under the BEAD program separate of those proposals for state general funds. Proposals received for BEAD funding will be scored, governed, and administered via BEAD and subsequent federal guidance. Proposals received for state general funding will be scored, governed, and administered via FY24 VATI Guidelines and Criteria.

Eligible applicants to each program are encouraged to apply for both funding sources. DHCD reserves the right to make administrative determinations and recommendations on VATI awards of state general funds based on capacity of the internet service provider to accommodate federal requirements of BEAD funds, the funding feasibility of the technology type under BEAD, as well as funding eligibility of areas for state general funding when compared to BEAD, among other factors. DHCD reserves the right to partially award any application and may request applicants provide information for a subset of an area within their original application area during the application process for state general funding.

Applicants are strongly encouraged to contact DHCD prior to submitting applications for BEAD or state general funds to discuss alignment, as well as incongruence, between each program.



Virginia Telecommunication Initiative Draft Guidelines and Criteria Input Sessions

Broadband Equity, Access, and Deployment (BEAD) Program Funding

Key Points

- Proposals received for BEAD funding will be scored, governed, and administered via BEAD and subsequent federal guidance. Proposals received for state general funding will be scored, governed, and administered via FY24 VATI Guidelines and Criteria.
- Eligible applicants to each program are encouraged to apply for both funding sources.
- DHCD reserves the right to partially award any application and may request applicants provide information for a subset of an area within their original application area during the application process for state general funding.
- Applicants are strongly encouraged to contact DHCD prior to submitting applications for BEAD or state general funds to discuss alignment, as well as incongruence, between each program.



Virginia Telecommunication Initiative Draft Guidelines and Criteria Input Sessions

VATI State General Fund and BEAD General Guidance

Key Points

- Local governments should apply for VATI funding with their preferred ISP partner
- ISPs should also seek BEAD funding in the same areas, if they are able
 - Note: ISPs are the only eligible applicants under BEAD
 - Note: Multiple ISPs can apply for the same area under BEAD
- Local governments should meet with and issue letters of support to their preferred ISP partners under BEAD
 - See Volume 2 of BEAD Initial Proposal
- (If prior guidance is adopted) The Office of Broadband will channel the appropriate funding to specific locations based on BEAD eligibility, technology type, and ISPs ability to meet federal BEAD requirements.



Virginia Telecommunication Initiative Draft Guidelines and Criteria Input Sessions

Evaluation Criteria

- **Commonwealth Priorities**
 - Added additional criterion to Commonwealth Priorities section:
 - "F. The co-applicant's efforts to mitigate make-ready and other permitting requirements anticipated for network deployment."



Virginia Telecommunication Initiative Draft Guidelines and Criteria Input Sessions

Evaluation Criteria – Totals Unchanged

Category	2023 Points	2024 Points
Project Description and Need	75	75
Project Readiness	40	40
Budget and Cost Appropriateness	135	135
Commonwealth Priorities	50	50
Total	300	300

Broadband Equity, Access, and Deployment Program (BEAD) 5-Year Plan Overview



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■ BEAD 5-Year Plan Goals and Objectives

- **Goal: Invest BEAD funding to achieve functionally universal broadband access, by the end of 2024 to all unserved and underserved locations in the Commonwealth that lack a funded solution for broadband access.**
 - Objective: Continue to work with local government and internet service providers to plan shovel-ready, universal broadband projects ready for funding
 - Objective: Remove the barrier of special construction costs for broadband access to locations through line extension programs.
- **Goal: Complete construction of BEAD funded projects by 2027-2028.**
 - Objective: Support development of broadband and other industry -related workforce to meet the ongoing construction and long-term operation and maintenance needs of broadband networks and associated infrastructure.

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■ BEAD 5-Year Plan Goals and Objectives

- *Goal: To the extent funding is available, promote federal resources for broadband affordability by **increasing ACP utilization by more than 5%** through existing and future efforts.*
 - *Objective: Fully utilize the Affordable Connectivity Program to lower the cost of broadband services for those that need it most.*
- *Goal: To the extent funding is available, conduct state-wide needs assessments and **develop programs to reach full broadband adoption.***
 - *Objective: Development and implement programs that support smart farming, building a business online, and telehealth, among others*
 - *Objective: Support sustainable, long-term programs to provide devices, including computers and tablets, to those in need*
 - *Objective: Develop and promote digital literacy and navigator programs in partnership with multiple institutions across the Commonwealth*

Broadband Equity, Access, and Deployment Program (BEAD) Volume 2 Overview



How to Read Volume 2

State Broadband Offices are bound to the requirements of the BEAD Notice of Funding Opportunity (NOFO). A summary of these requirements is below:

2 – Completely Discretionary
 12 – Mandatory With Some Flexibility
+ 17 – Completely Mandatory
 31 Requirements in the NOFO

State Broadband Offices have the most flexibility & Discretion in Subgrantee Program Design and in Scoring Criteria of Subgrantee Proposals.

Source: US Telecom



How to Read Volume 2

Completely Discretionary Requirements:

Open Access Last Mile Infrastructure
 Subgrantee Local and Tribal Coordination

Mandatory Requirements, with Some Flexibility:

Low-Cost Broadband Service Option
 Middle Class Affordability Plan
 Commitment to Provide Affordable Prices for 1/1 Gbps Service
 Fair Labor and Employment Laws
 Highly Skilled Workforce and Workforce Development
 Buy American Requirements
 Cost-Sharing / Matching
 Net Neutrality / Network Management Practices
 Interconnection – Middle Mile Infrastructure
 Conduit Access and Excess Capacity (Fiber Projects Only)
 Equitable and Nondiscriminatory Distribution of Funds
 Public Awareness Campaigns

Mandatory Requirements:

Managerial Capability
 Technical Capability
 Financial Capability, Including Letter of Credit and Legal Opinion Letter
 Deployment Deadlines
 Climate Resilience
 Cybersecurity Risk Management
 Supply Chain Risk Management
 Operational Capability
 Prohibition on Data Caps
 Prohibition on Chinese Fiber and Optical Transmission Equipment
 Customer Access to Service
 Quality of Service (Speed, Latency, Outages)
 Civil Rights and Non-Discrimination Laws
 Eligible and Ineligible Use of Program Funds
 Property Trust Relationships
 Environmental and Historic Preservation
 Reporting and Accountability

Source: US Telecom

BEAD Application Process

Stage 1 – Pre-Application

1. Office of Broadband publishes final list of BEAD-eligible locations
2. Internet Providers have 60 days to submit a pre-application, including a letter of interest and shapefiles of where they plan to bid under BEAD
3. The Office of Broadband analyzes where overlap exists and forms defined application areas across Virginia
 - This process allows for an apples-to-apples comparison

Stage 2 – Full Application

1. Office of Broadband publishes application area boundaries.
2. Internet providers have 90 days to submit full applications
3. Office of Broadband reviews applications, selects recommended awardees
4. Recommendations made to Youngkin Administration
5. Approved Awards and Process sent to Federal Government for Final Review and Approval
6. Awards Announced

BEAD Scoring Criteria

- 75% is federally mandated to be divided across three criteria: Minimal BEAD Outlay, Affordability, and Fair Labor Practices
- < 25% is discretionary, but must be selected from a list of optional criteria

	Proposed Scoring Category	Weight
Primary Criteria: Must Comprise a Total of at least 75%	Minimal BEAD Program Outlay	45%
	Affordability	20%
	Fair Labor Practices	10%
Must be Given Some Weight	Speed to Deployment	5%
Optional Criteria (Weight Cannot Exceed Any of Primary Criteria)	Broadband Provider has Consulted Local Government	10%
	Broadband Provider has Received Letter of Support from Local Government	10%

BEAD FAQs

- **What is the maximum we'll pay for a location to be served with fiber?**
 - This threshold will be set once applications are received and we can see the direct impacts of a specific threshold (2.4.10)
- **What if we don't receive a proposal to serve an area under BEAD?**
 - The Office of Broadband can engage directly with broadband providers (of any technology type) to solicit proposals. (2.4.7)
- **What is the timeline of projects once awarded?**
 - The federal deadline is 4 years after a project's award is announced. (BEAD NOFO)
- **Do providers have to submit all information for every application area?**
 - No, the Office of Broadband will require only narrative per applicant, with only specific information required for each application area. (2.4.1)

Low-Cost Service Option

As required in the BEAD Notice of Funding Opportunity, subgrantees receiving BEAD funds to deploy broadband infrastructure are required to offer a "low-cost broadband service option" that is available to customers for the useful life of the network assets.

The Office of Broadband defines a low-cost service option as one that meets, at a minimum, the following criteria:

1. Costs \$30 per month, inclusive of all fees, taxes, and charges billed to the customer.
2. Allows end user to apply for and use ACP and Lifeline subsidies. Demonstrable efforts to inform prospective customers of these programs and the necessary steps to enroll.
3. Consistently and reliably provides download speeds of at least 100 Mbps and typical upload speeds of at least 20 Mbps.
4. Provides typical latency measurements of no more than 100 milliseconds.
5. Not subject to data caps, surcharges, or usage-based throttling. Subject only to same use policies as other subscribers.
6. In the event the applicant later offers a low-cost plan with higher speeds downstream and/or upstream, permits Eligible Subscribers that are subscribed to a low-cost broadband service option to upgrade to the new low-cost offering at little to no cost.

■ Low-Cost Service Option, Continued

- The applicant is required to participate in the Affordable Connectivity Program, and encouraged to ensure that prospective customers are aware of their participation in the ACP. The applicant is encouraged to participate in any successor broadband subsidy programs should funding for the Affordable Connectivity Program be depleted and the Program not renewed.
- The low-cost broadband service option must be made available to those who qualify for the FCC's Affordable Connectivity Program. Eligibility criteria for the Affordable Connectivity Program are located at <https://www.affordableconnectivity.gov/do-i-qualify/>. Subgrantees may not impose additional eligibility restrictions beyond those applicable to the Affordable Connectivity Program.
- The Office of Broadband strongly encourages the low-cost broadband service option made available to all eligible prospective customers across the subgrantee's service territory; however, this service option must at least be available to locations within the awarded project areas under the BEAD program.
- Applicants may seek a waiver from the Office of Broadband to increase the maximum cost of the service plan to \$50, holding all other above-listed requirements of the low-cost service option constant. The waiver must clearly demonstrate that offering a \$30 low-cost service option is cost-prohibitive or not reasonably possible. The Office of Broadband will evaluate waivers on a case-by-case basis and reserves the right to decline an applicant's waiver should it not clearly demonstrate the need for an increase in the service cost from \$30 to \$50.

■ Non-Deployment: Eligible Uses of BEAD Funds

The Office of Broadband will prioritize the following considerations in the selection of non-deployment initiatives using funds from Virginia's BEAD allocation:

- **Return on investment for the Commonwealth and its residents:** the initiative will have a generational impact on residents of the Commonwealth and will address the digital divide in a sustainable manner.
- **Addresses identified component of the digital divide:** the non-deployment initiative addresses a component of the digital divide beyond access to broadband infrastructure that is supported by data from the Virginia Digital Opportunity Survey and consistent with the findings of the Virginia Digital Opportunity Plan and/or locality and Tribal Broadband Affordability and Adoption plans.
- **Innovative solutions:** the non-deployment initiative addresses an aspect of the digital divide without a current solution or supplements an existing solution in an innovative manner.
- **Capacity and experience:** organizations in the prospective pool of applicants generally have the experience and organizational capacity necessary to administer a potentially significant program.

■ Non-Deployment: Eligible Uses of BEAD Funds

In line with the BEAD Notice of Funding Opportunity, the Office of Broadband will consider supporting non-deployment activities related to the following:

- User training with respect to cybersecurity, privacy, and other digital safety matters.
- Remote learning or telehealth services/facilities.
- Digital literacy/upskilling (from beginner-level to advanced).
- Computer science, coding and cybersecurity education programs.
- Implementation of Eligible Entity digital equity plans (to supplement, but not to duplicate or supplant, Planning Grant funds received by the Eligible Entity in connection with the Digital Equity Act of 2021).
- Broadband sign-up assistance and programs that provide technology support.
- Multi-lingual outreach to support adoption and digital literacy.
- Prisoner education to promote pre-release digital literacy, job skills, online job acquisition skills, etc.
- Digital navigators.
- Costs associated with stakeholder engagement, including travel, capacity-building, or contract support.
- Other allowable costs necessary to carrying out programmatic activities of an award, not to include ineligible costs described in Section V.H.2 of the NOFO.
- Activities related to the incorporation of “smart” technologies and capabilities into farming practices.
- Broadband adoption initiatives or programs.
- Other activities related to non-deployment.

Line Extension Customer Assistance Program Updates

LECAP Update

As of 8/17/2023, the Line Extension Customer Assistance Program (LECAP) has received nearly 500 applications for cost assistance.

- 166 have qualified via program income requirements
- 165 applicants have not submitted income documentation
- 120 projects are ongoing/complete
 - 89 of those projects are active
 - 31 projects are complete
- 41.7 Miles of Line Extensions
- Average Line Extension: 1,914 feet

LECAP Update

17 providers have submitted required materials, been approved to participate in LECAP

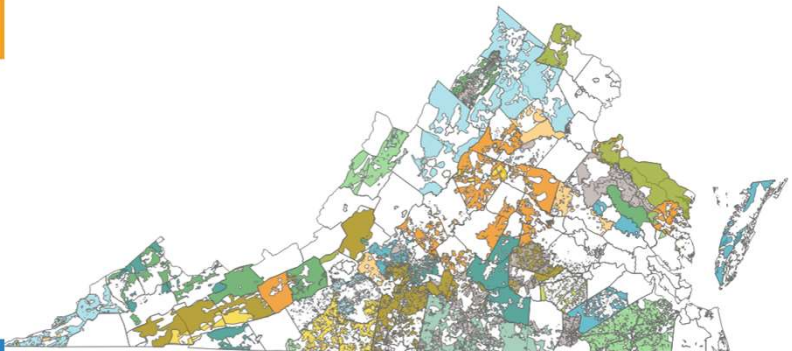
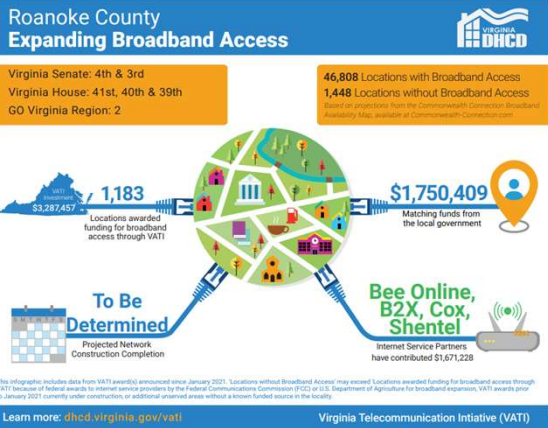
Broadband Provider	Number of Projects
Citizens Telephone Cooperative	76
Comcast	11
Breezeline	9
Shentel	6
Cox	4
Point Broadband	4
ESVBA	3
Virginia Technology Services	1


Other Updates



Other Updates


- County and City Broadband Profiles are Now Published
- Broadband Dashboard is up to Date with FY23 Project Areas Displayed






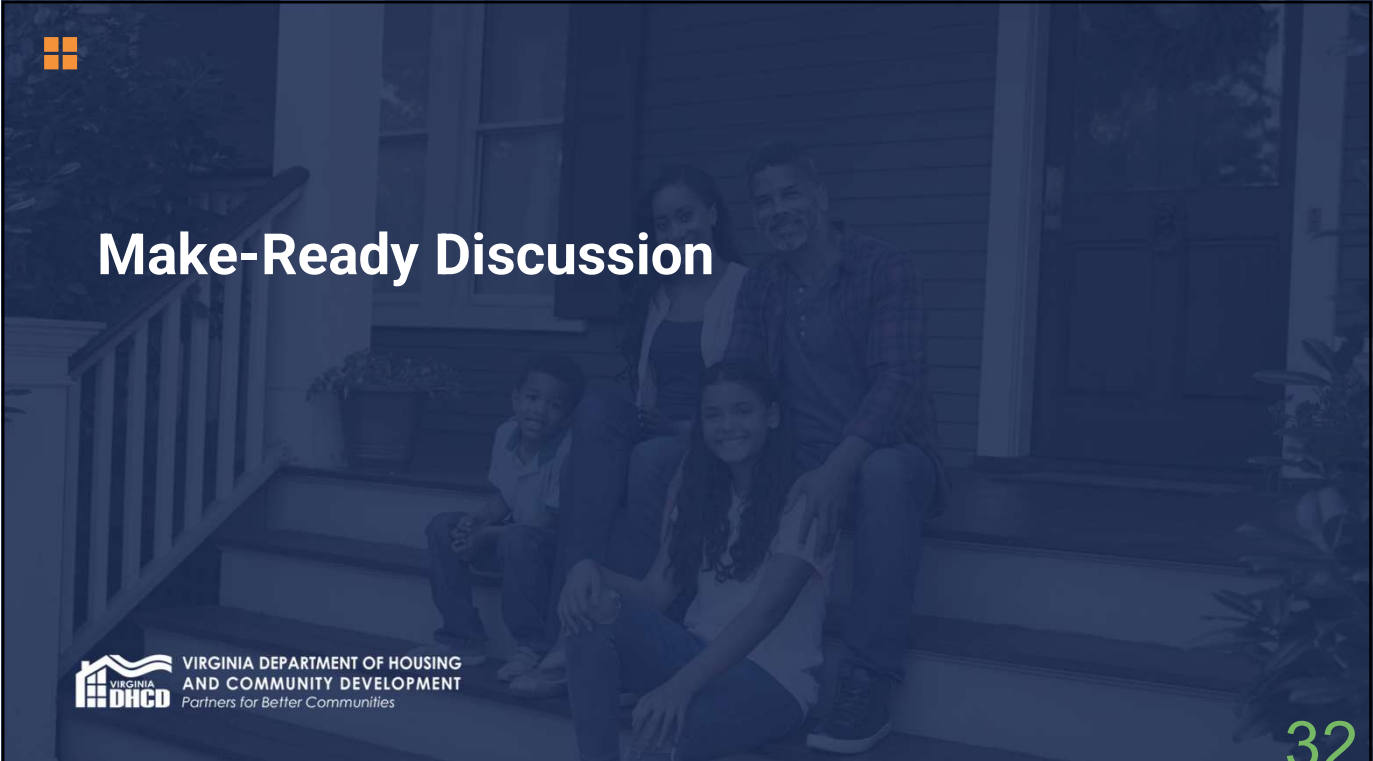
Questions & Answers

Contact Us
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Richmond, VA 23219
804-371-7000
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Email: vati@dhcd.virginia.gov




VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
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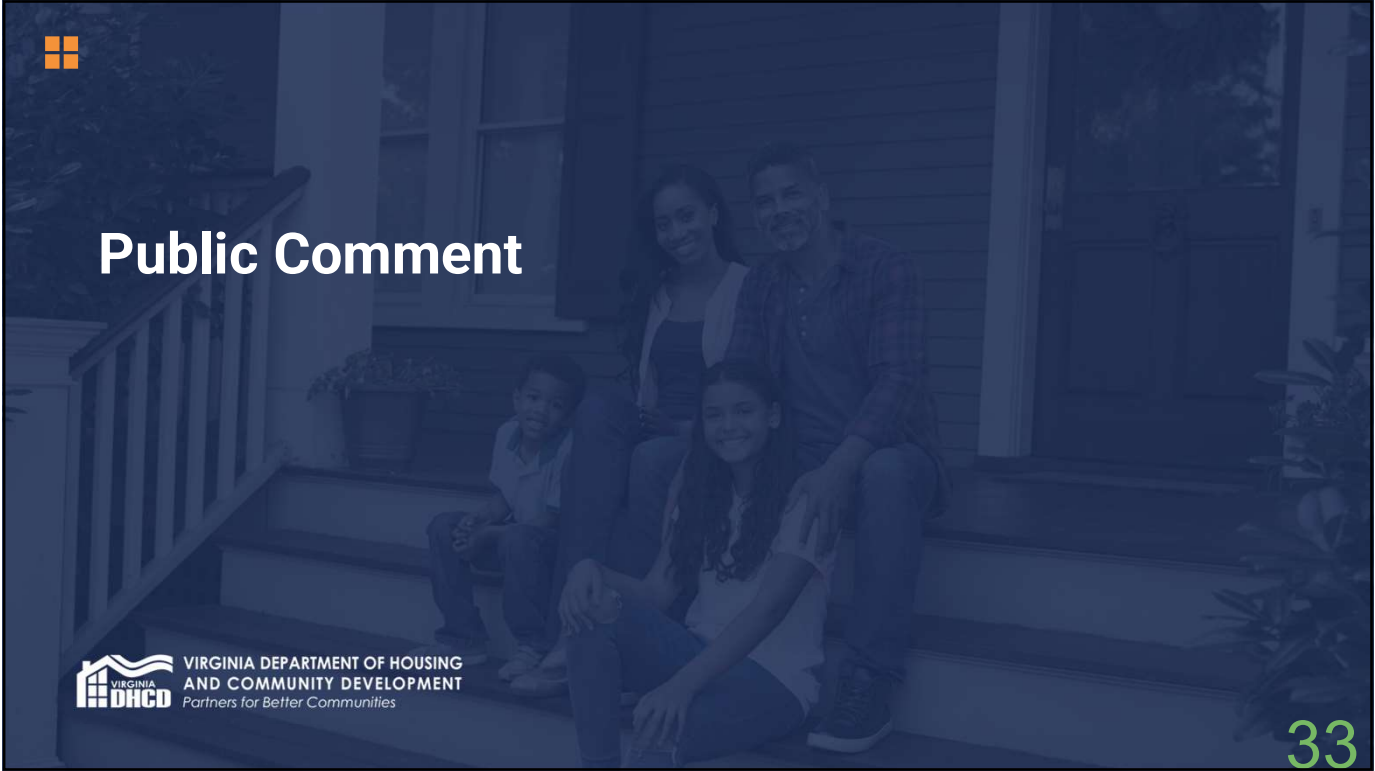
Make-Ready Discussion



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Public Comment



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New Business



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Adjournment



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Overview of Joint Use and Make Ready

**August 28, 2023
Virginia Broadband
Advisory Council**

Pole Attachments: Legal Framework

- To promote deployment and competition, federal law requires pole owners (electric utilities and incumbent phone companies) to grant telecommunications providers access to their poles:
 - Access must be made available on a neutral and non-discriminatory basis
 - Access may be denied only on a non-discriminatory basis where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering reasons
 - Rates, terms and conditions offered to telecommunications providers must be just and reasonable rates
- Specific requirements and procedures are typically set forth in “pole attachment agreements” negotiated between pole owners and individual providers
- FCC regulations and rulings are the primary guide for determining which practices are reasonable (or not) and for determining just and reasonable rates
- ISPs generally prefer aerial deployments due to ~50% reduction in cost/mile

What is on a Typical Pole?

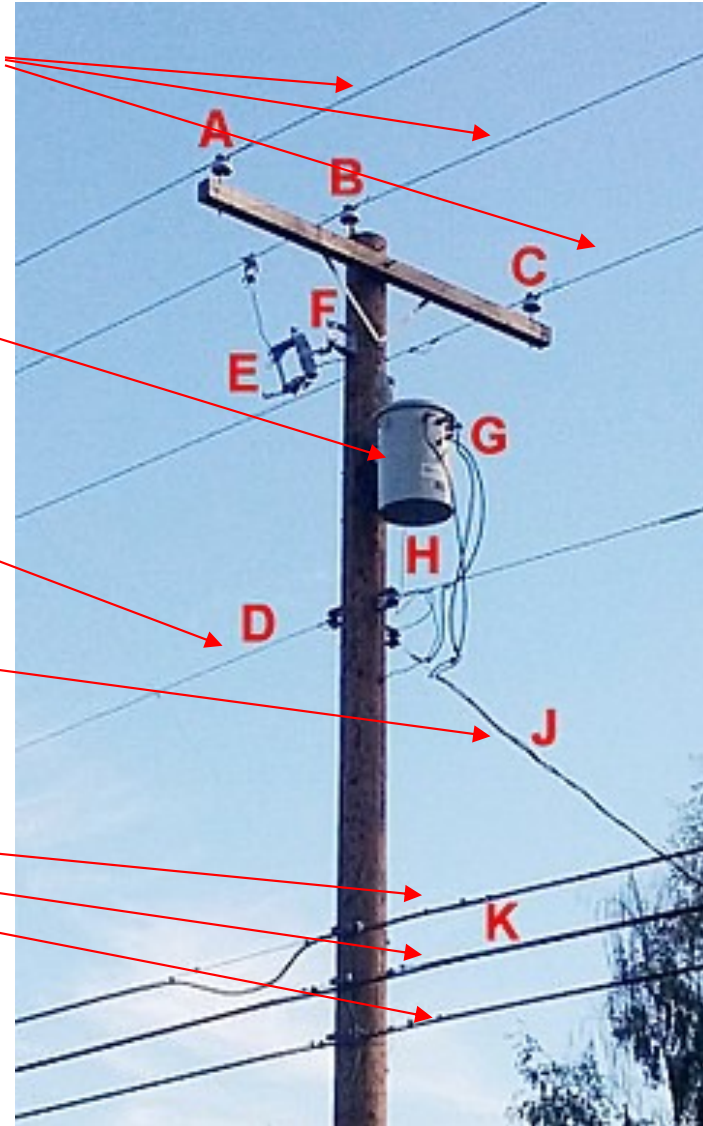
A/B/C: 3-phase primary distribution wires
(higher voltage, carrying power from substation)

G: transformer
(converts high voltage to lower voltage power for use by customers)

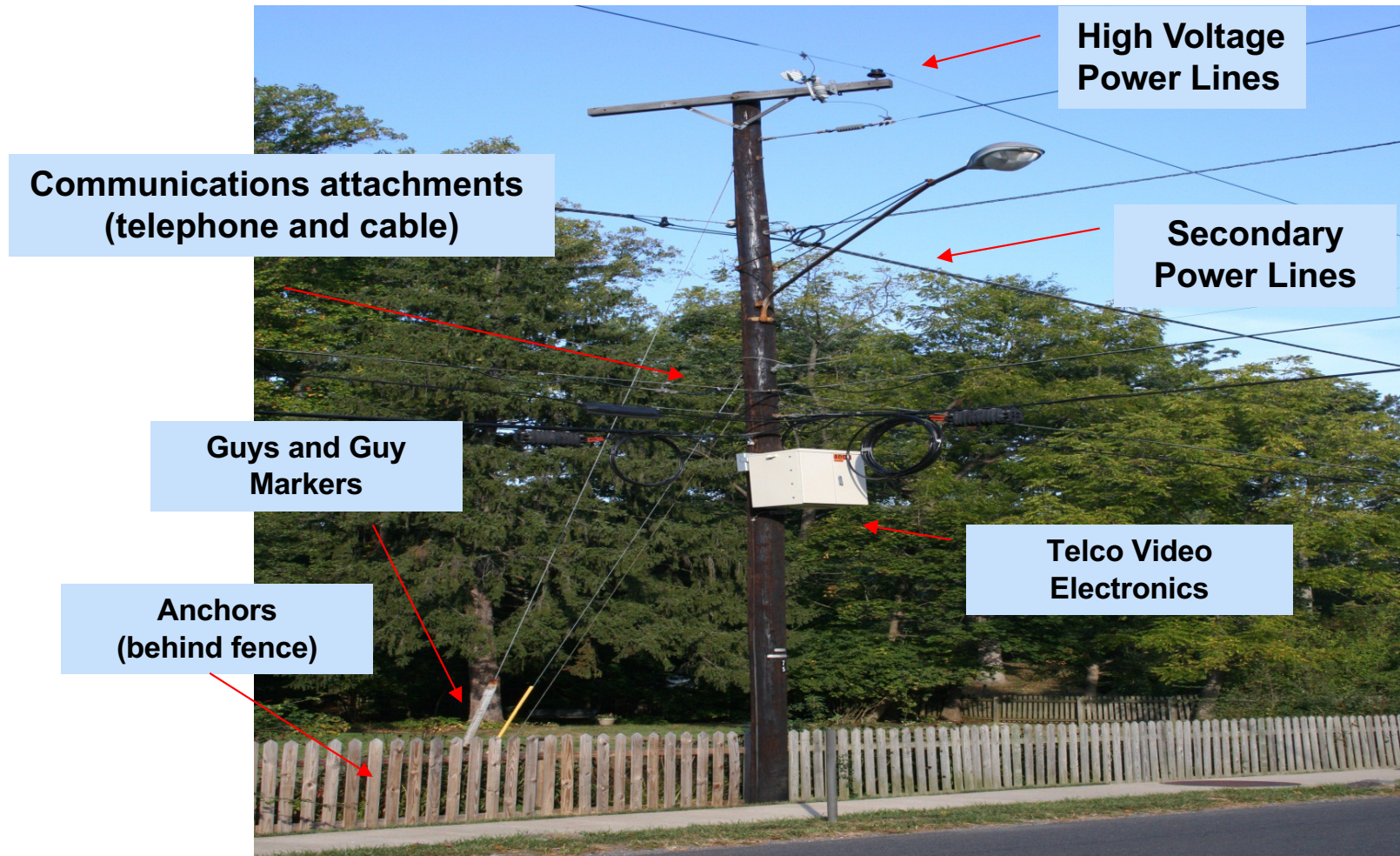
D: power neutral wire
(balances load on electrical system)

J: power service drop
(delivers power to end users)

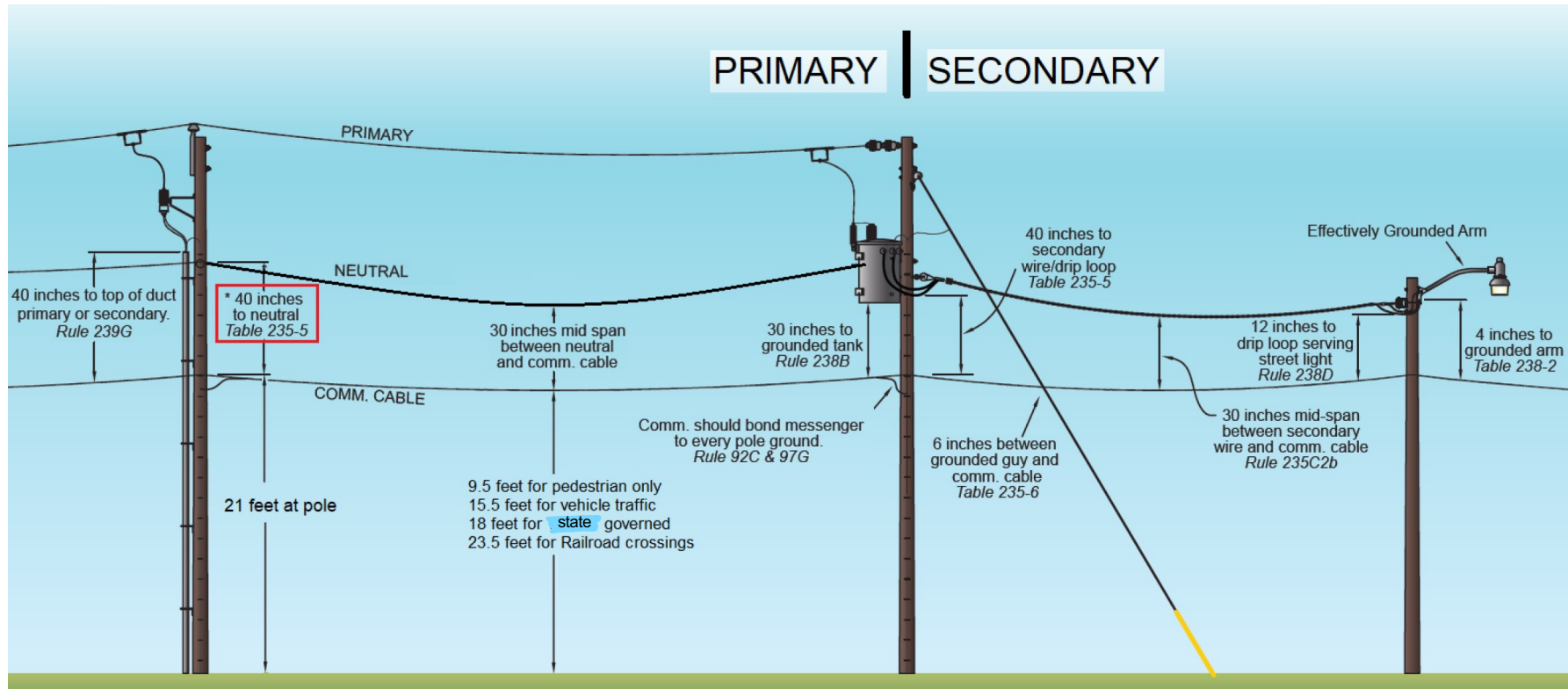
K: Communications Attachments
(phone, cable and/or fiber)



What is on a Typical Pole?



Why is Make Ready Required?



- The National Electric Safety Code (NESC) establishes certain minimum clearances that must be maintained between various components of the electric grid, telecommunications infrastructure, and the ground
- Some utilities condition access to their poles on compliance with requirements in addition to the NESC, such as the requirement to conduct Pole Loading Analysis (PLA) when certain conditions are present (span length, angle change, etc.)

What Does “Make Ready” Mean?

- Make ready is the process of preparing utility poles to accommodate new communications attachments
- Make ready generally consists of increasing clearances between lines and/or the ground through one or more of the following:
 - 1) relocating communications lines
 - 2) relocating electric equipment
 - 3) adding additional “mid-span” poles
 - 4) replacing existing poles with taller poles

Step 1: Fielding

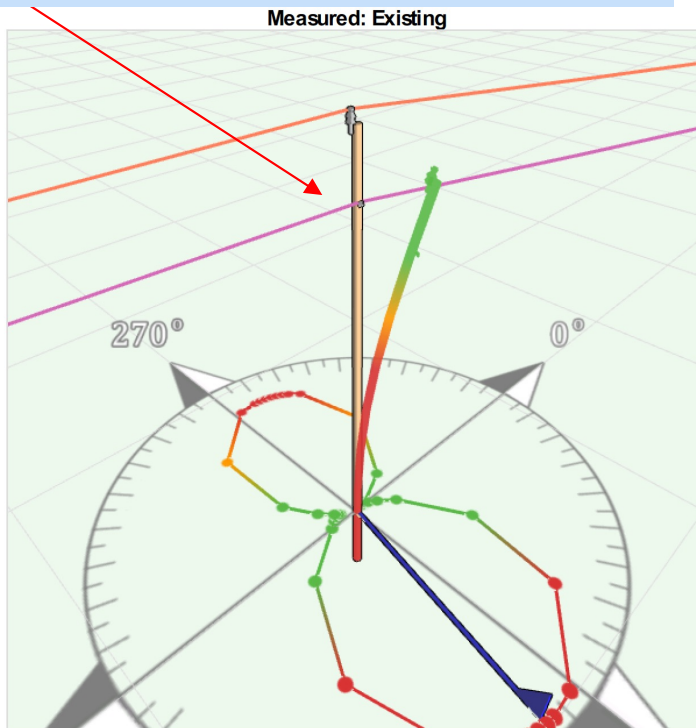
- The first step in the make ready process is pole “fielding”, during which data about current conditions is collected in the field to inform subsequent engineering and analysis



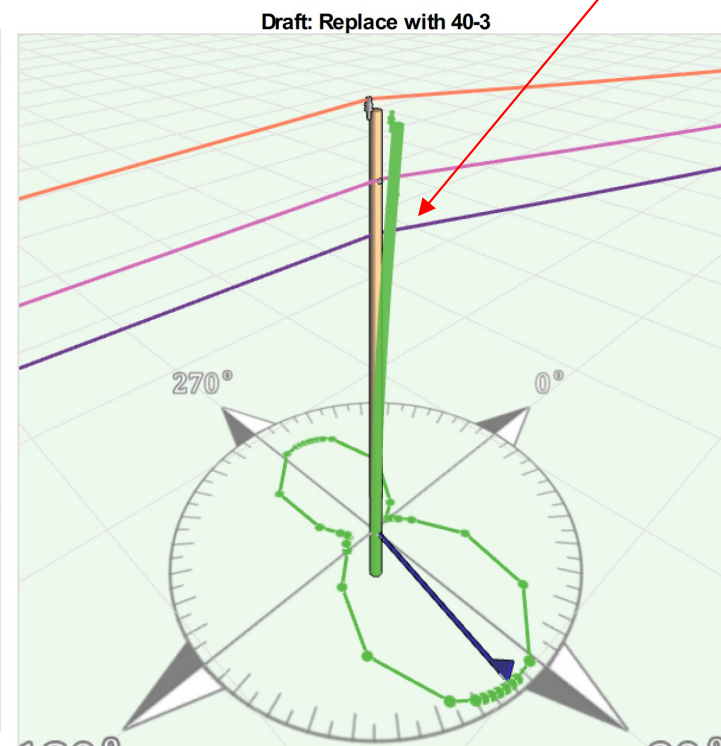
Make Ready Engineering (Pole Loading Analysis)

- Pole loading analysis (PLA) is typically required for ~10% of poles, though requirements vary significantly between pole owners
- PLA is an expensive, time consuming process, usually reserved for significant crossings, sharp angle changes, etc.

This pole fails as it stands (prior to fiber attachment), and is therefore the responsibility of the pole owner



The new pole can safely accommodate existing electric equipment and a fiber attachment



Make Ready Process Overview (oversimplified)

Stage	Responsible Party	Activity	(1) FCC Timelines for "Large Jobs"
Fielding	(2) ISP (including contractors)	Field survey each pole along route to document existing conditions	
Make Ready Engineering (MRE)	(2) ISP (including contractors)	Vendor/ISP review fielding results, confirm poles for attachment; prepare/submit application to pole owner	
Pole Owner's Evaluation	(2) Pole owner (frequently outsourced)	Review pole attachment applications. Identify make ready scope of work for electric, existing attachers, and ISP. Prepare cost estimates for electric MRC	60 days
Electric Make Ready Construction (MRC)	(2) Pole owner (frequently outsourced)	Pole owner performs make ready construction / pole replacement for its owned assets; at which point an "NTP" is issued	105 days
Communications Make Ready Construction (MRC)	(2) 3rd party attachers (frequently outsourced)	3rd party attachers relocate their attachments per approved application. Can be performed by ISP through "one touch make ready" (OTMR) process with common approved vendor	30 days (3)
Fiber Attachment	(2) ISP (outsourced to contractors)	ISP releases installation contractor to hang fiber	

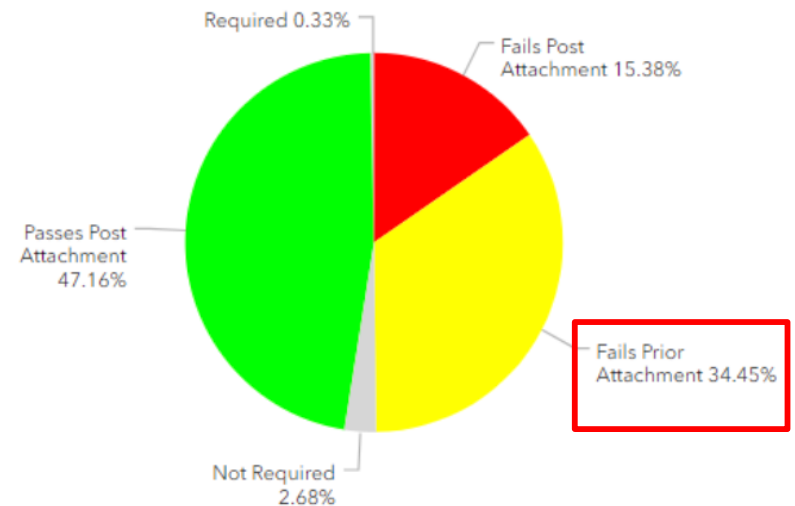
1) FCC's make-ready timelines apply to investor-owned utilities (DEV & AEP) and are the baseline for other pole owners (cooperatives, etc.)

2) Backdrop of unprecedented demand for materials, engineering and construction labor, trends which will accelerate as BEAD funds flow through individual states

3) FCC's OTMR rules intended to reduce delays caused by incumbent attachers

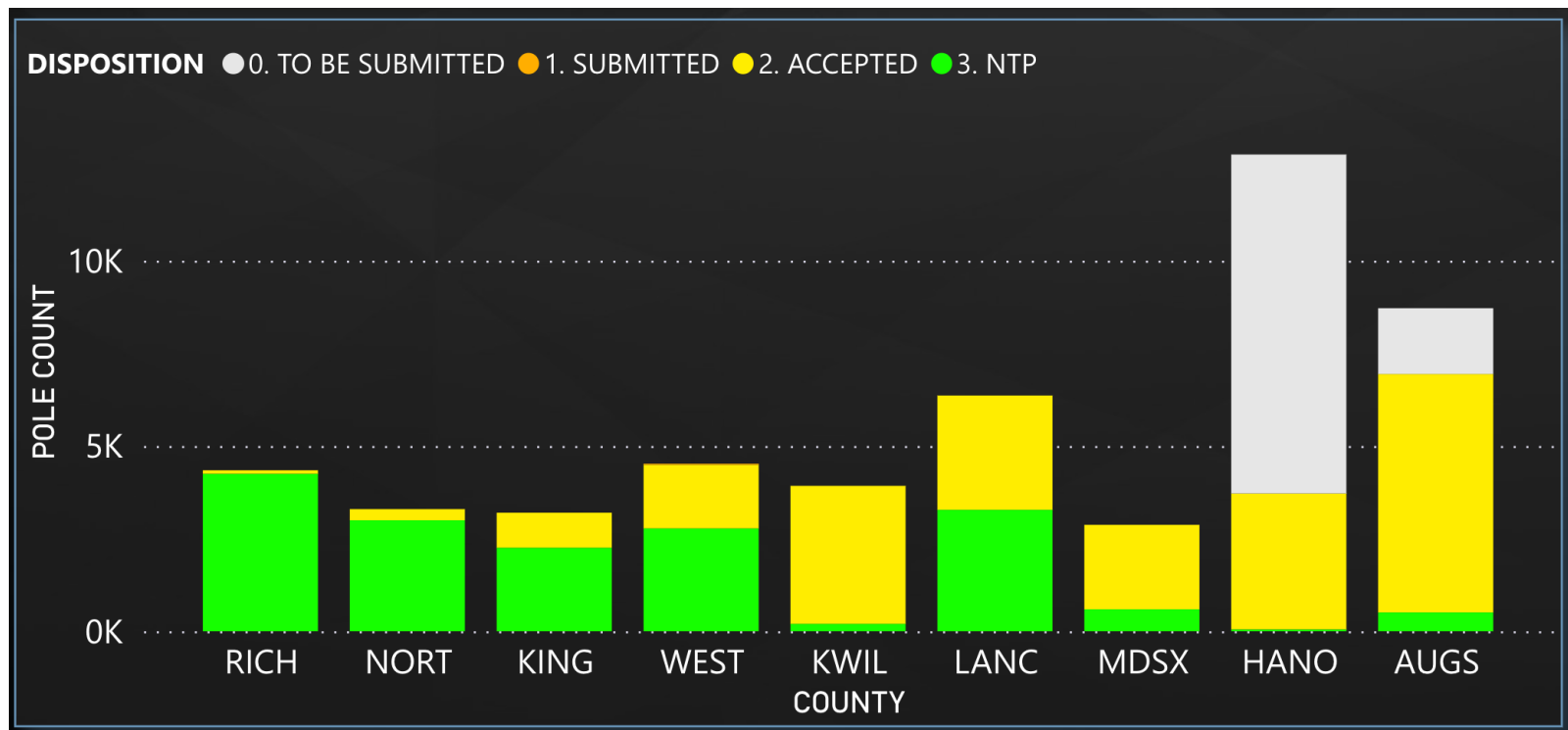
Make Ready Cost Principles

- Make ready charges must reflect **actual and reasonable** costs
 - Reimbursement, not profit, for pole owner
- Make ready costs are borne by the **cost-causer** – generally the new attacher, but:
 - Costs of existing violations are born by the party in violation (including pole owner)
- In this example from Hanover County, ~35% of poles fail **prior to attachment**
- Regardless of who is responsible for the costs, these poles still have to be replaced before broadband can be delivered
- These are real costs in addition to the VATI project budget
- The timing of this work determines the timing of the VATI project



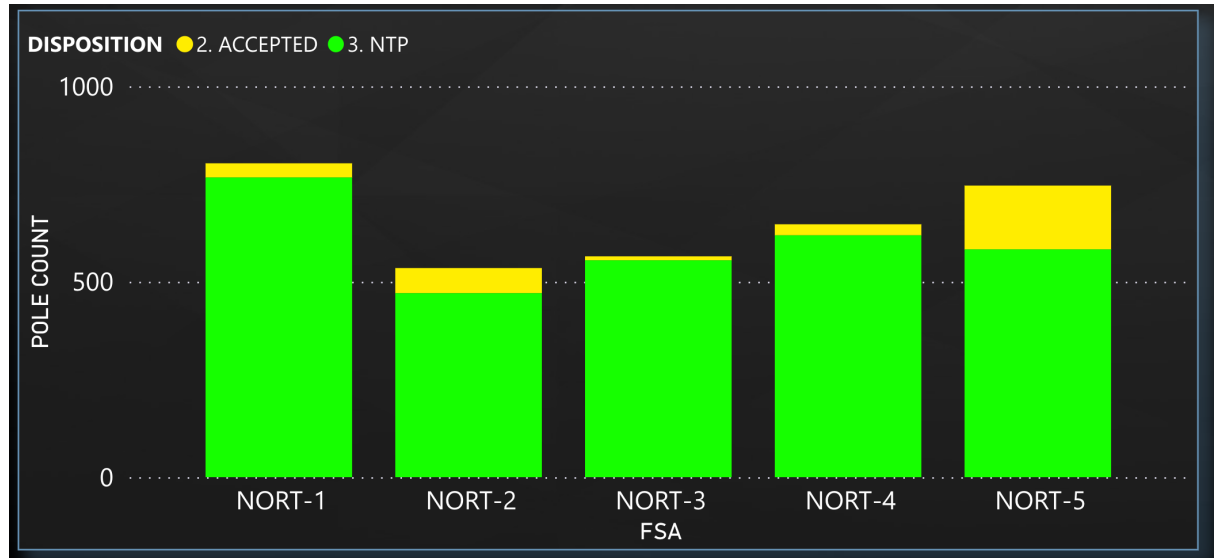
Make Ready is the #1 Issue for Rural Broadband

- Make ready cadence – # of poles NTP'd per month – is what determines the pace of construction for rural, greenfield fiber deployments
- **Make ready is the bottleneck**
- The scope of the work to be done is **unprecedented** – for a universal project, assume that ~75% of all poles in the county that don't yet have an attachment will have one before build-out is complete



Make Ready Examples: Northumberland

- Service isn't available until the entire FSA is ready (when the whole bar is green)
- APB is waiting for notice to proceed (NTP) on 252 poles across all five FSAs
- The pending applications have been in DEV's queue an average of 234 days
- 234 days is 69 days past FCC rules of 165 days
- This is why last-mile fiber construction is ~60 days behind schedule



Time Outstanding Outliers

SUBMITTED
286 Days

ACCEPTED
234 Days

MRC COMPLETE
138 Days

ACCEPTED
9
POLES
252

ACCEPTED
9
POLES
252

APPLIED
39
POLES
1099

COUNTY	PART	Ticket Number	Owner	Outstanding Submitted	Outstanding Accepted	Outstanding NTP	Disposition	Pole Count
VA-NORT	VA-NORT-1 5	5264660	DOM	353	253	0	2. ACCEPTED	36
VA-NORT	VA-NORT-2 3	5299667	DOM	326	253	0	2. ACCEPTED	25
VA-NORT	VA-NORT-4 19	5308610	DOM	318	253	0	2. ACCEPTED	28
VA-NORT	VA-NORT-5 6	5330809	DOM	301	253	0	2. ACCEPTED	30
VA-NORT	VA-NORT-5 14	5351361	DOM	288	226	0	2. ACCEPTED	31
VA-NORT	VA-NORT-5 15	5351642	DOM	287	226	0	2. ACCEPTED	27
VA-NORT	VA-NORT-5 18	5351900	DOM	287	226	0	2. ACCEPTED	39
VA-NORT	VA-NORT-5 24	5444056	DOM	204	204	0	2. ACCEPTED	10
VA-NORT	VA-NORT-5 27	5444306	DOM	204	204	0	2. ACCEPTED	26
VA-NORT	VA-NORT-1 1	5263403	DOM	0	0	152	3. NTP	33
Total				54	44	112		1351

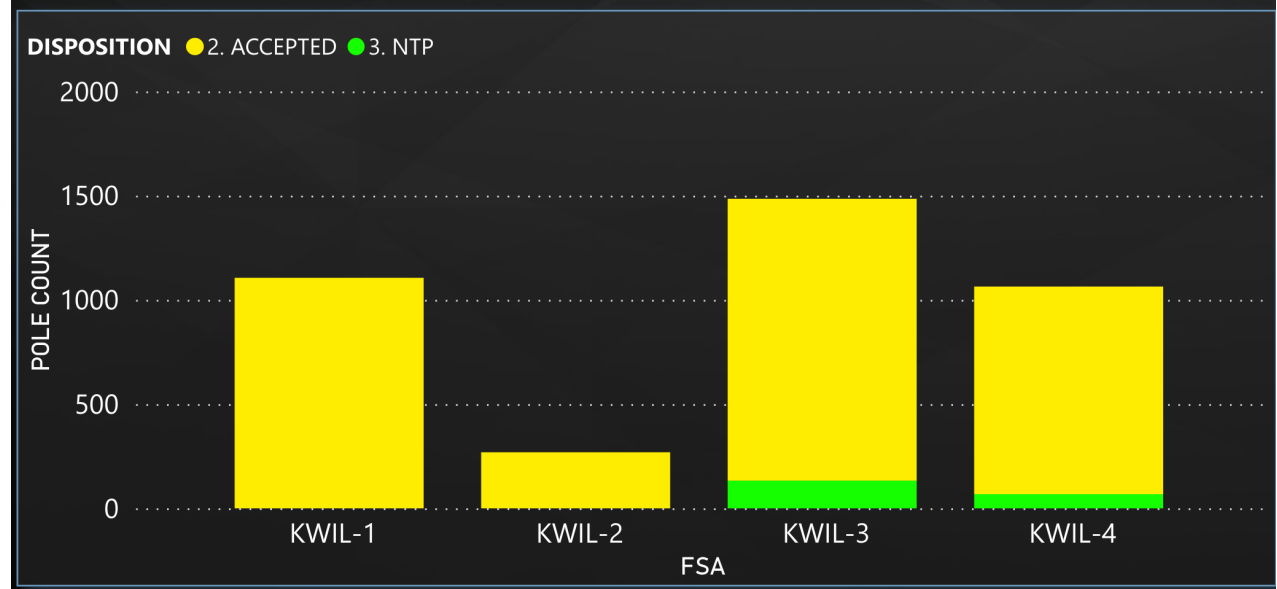
ACCEPTED: 0, NTP: 581

OWNER: Multiple select...
DISPOSITION: All
PRIORITY: All

PROJECT | COUNTY: Northern Neck (PROJECT...)
PART: FSA

Make Ready Examples: King William

- Construction begins when the entire FSA is ready (when the whole bar is green)
- 3,723 poles have yet to be NTPd
- The oldest applications have been in the pole owner's queue for 183/179 days (DEV/REC)
- The average application has been in the pole owner's queue for 142 days
- ISPs do not have insight into remaining timeline – which frustrates scheduling



Time Outstanding Outliers

SUBMITTED
143 Days

ACCEPTED
142 Days

MRC COMPLETE
98 Days

ACCEPTED APPLICATIONS
140

POLES
3723

ACCEPTED APPLICATIONS
140

POLES
3723

ACCEPTED APPLICATIONS
9

POLES
201

COUNTY	PART	Ticket Number	Owner	Outstanding Submitted	Outstanding Accepted	Outstanding NTP	Disposition	Pole Count
VA-KWIL	VA-KWIL-2 1	5462579	DOM	190	183	0	2. ACCEPTED	15
VA-KWIL	VA-KWIL-3 1	5462797	DOM	190	183	0	2. ACCEPTED	29
VA-KWIL	VA-KWIL-3 1-1	5463269	DOM	190	183	0	2. ACCEPTED	15
VA-KWIL	VA-KWIL-3 2	5463720	DOM	190	183	0	2. ACCEPTED	38
VA-KWIL	VA-KWIL-3 3-1	5463982	DOM	190	183	0	2. ACCEPTED	11
VA-KWIL	VA-KWIL-3 3	5464274	DOM	189	183	0	2. ACCEPTED	32
VA-KWIL	VA-KWIL-3 4	5464785	DOM	189	183	0	2. ACCEPTED	39
VA-KWIL	VA-KWIL-3 5	5464881	DOM	189	183	0	2. ACCEPTED	26
VA-KWIL	VA-KWIL-2 2	5478668	RECBG	179	179	0	2. ACCEPTED	20
VA-KWIL	VA-KWIL-2 3	5479501	RECBG	178	178	0	2. ACCEPTED	25
Total				134	133	6		3924

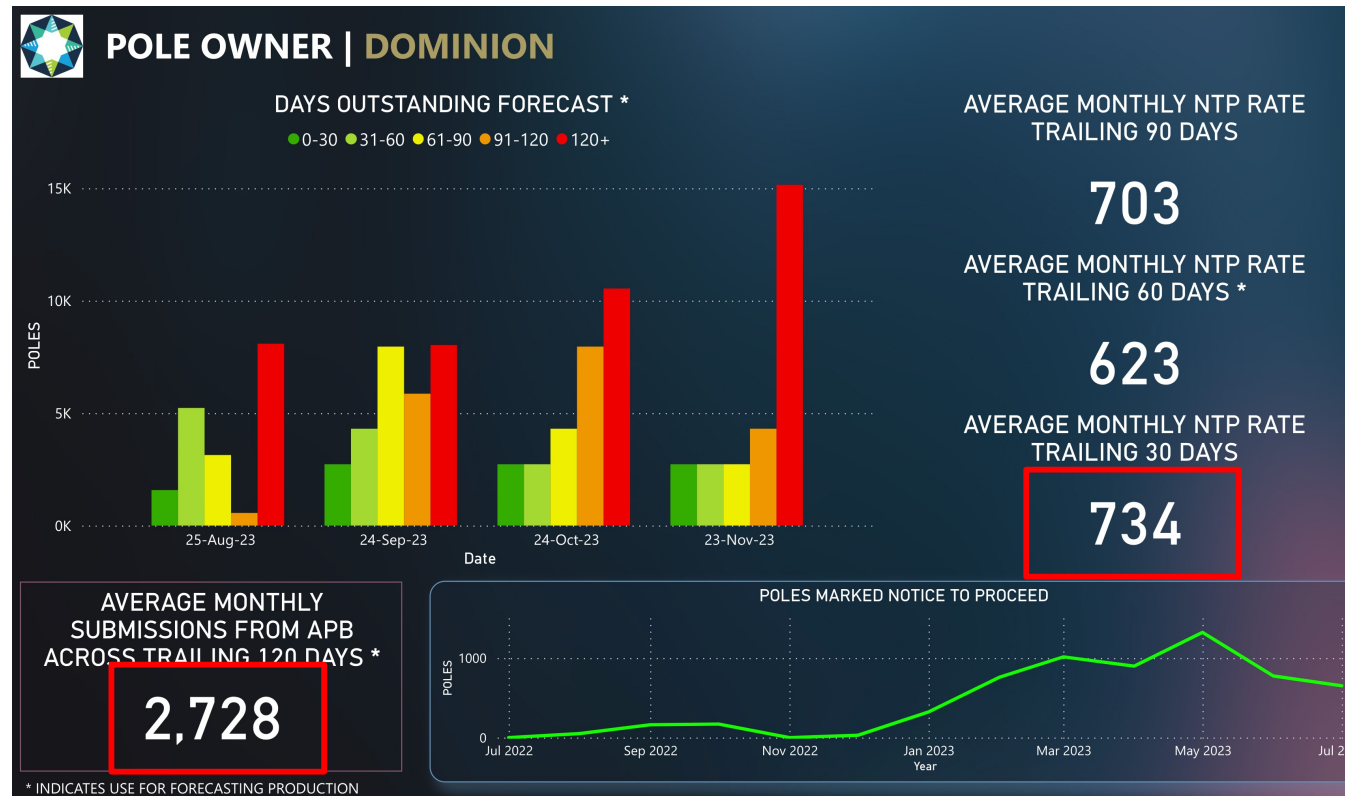
ACCEPTED: 0, NTP: 581

OWNER: All, DISPOSITION: All, PRIORITY: All

PROJECT | COUNTY: Northern Neck (PROJECT...), FSA: All, PART: All

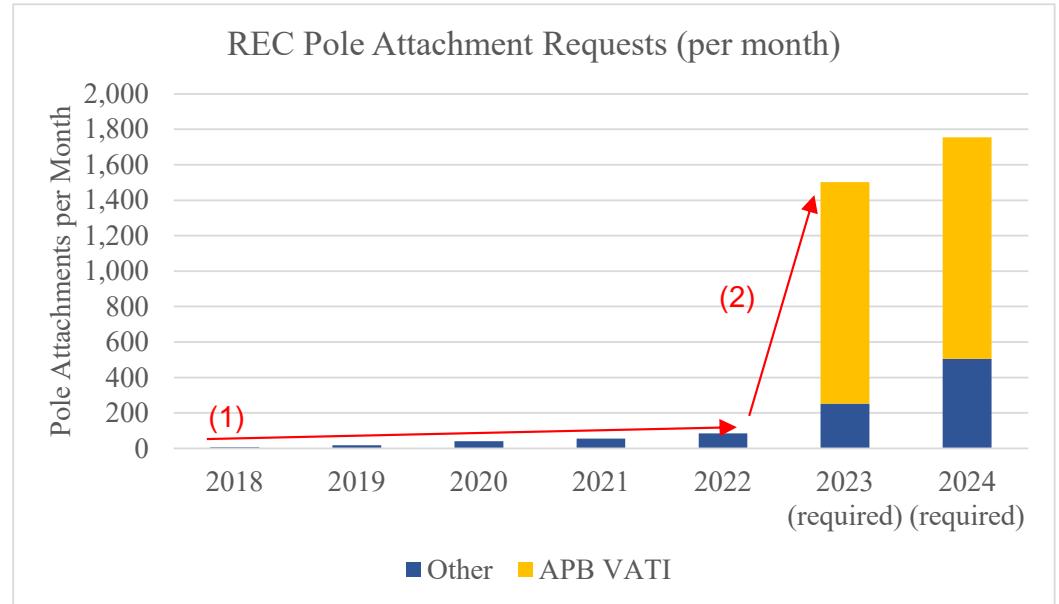
The Make Ready Backlog is Growing Every Day

- 1) APB is submitting ~2,700 poles/month to Dominion
- 2) Dominion is averaging ~700 poles/month NPT
- 3) Every month, the backlog is growing by ~2,000 poles
- 4) This is a snapshot of only one utility (DEV) and only one ISP (APB)
- 5) This is the situation **before** BEAD-funding more than doubles Virginia's investment in broadband



Make Ready Trends: Rappahannock Electric Cooperative

- 1) From 2018 to 2022, REC's average monthly attachment requests increased from 6 poles/month to 85 poles/month
- 2) By Q3 2023, REC will need to be processing an additional 1,250 poles per month, just to keep APB's projects on schedule



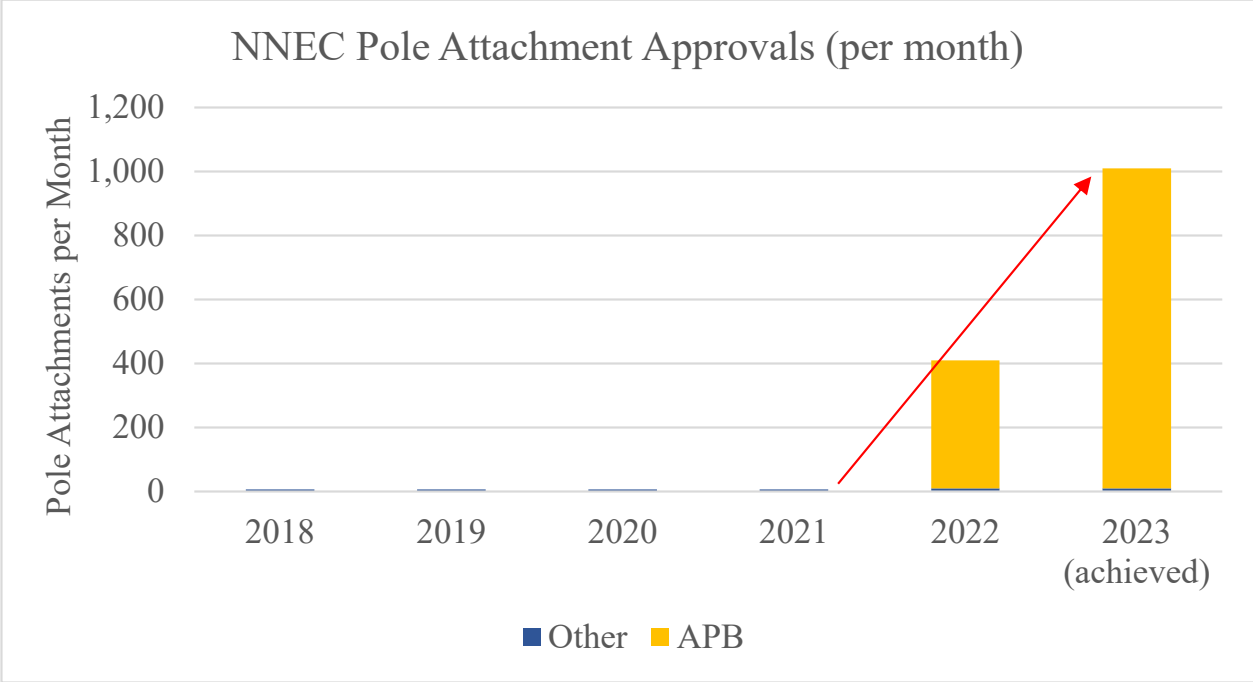
- REC is also working with other partners and will see additional attachment requests in the future from existing and future VATI / BEAD Projects
- REC is also building an 800+ mile fiber network of its own (~600 poles replaced)
- REC expects to replace another ~3,000 poles as part of its Firefly partnership

Success Stories: Northern Neck Electric Cooperative

- Prior to working with APB, NNEC processed an average of 6.25 poles/month
- NNEC and APB collaborated to completely overhaul NNEC’s make-ready processes to achieve our joint project schedule
 - Automation and visibility
 - Joint procurement / common vendors
 - Unified forecasting, supply chain and procurement
 - Shared commitment to 1,000 poles/month to support broadband construction schedule

- In 2023, NNEC has averaged 1,000+ poles/month

- **16,000% increase in make ready cadence**



Make Ready is the #1 Issue for Rural Broadband

- Make ready cadence – # of poles NTP'd per month – is what determines the pace of construction for rural, greenfield fiber deployments
- **Make ready is the bottleneck**
- The scope of the work to be done is **unprecedented**
- All stakeholders must collaborate, coordinate and innovate to timely deliver broadband
- It can be done, but will require continued resources and focus



Thank You