

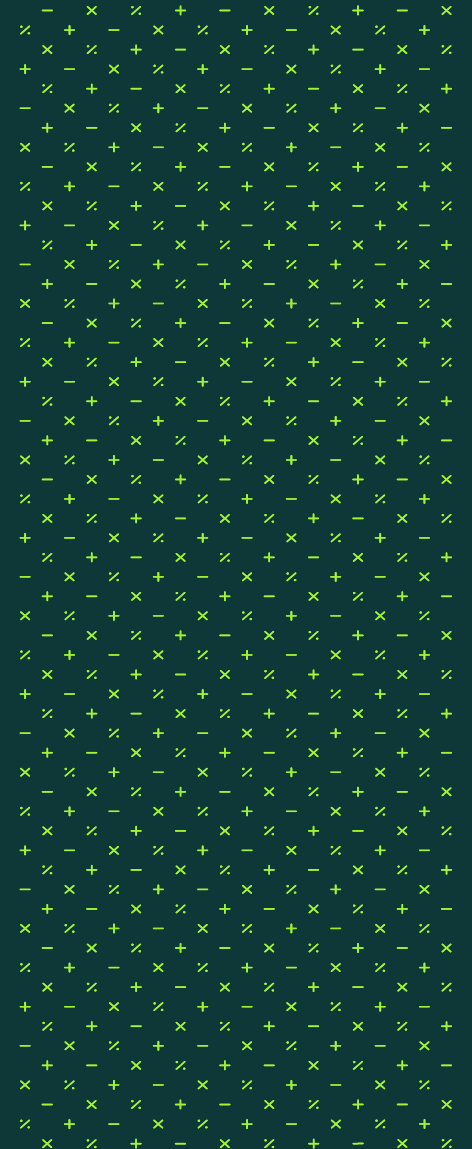


MOSSADAMS

# Business Continuity: From Funding to Sustaining Tribal ISP Networks

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Presented by: Moss Adams  
Rob Strait, Partner  
Doug Kitch, CPA, Partner  
Jennifer Hickerson, Senior Manager



# Agenda Items

## • The Broadband Continuum

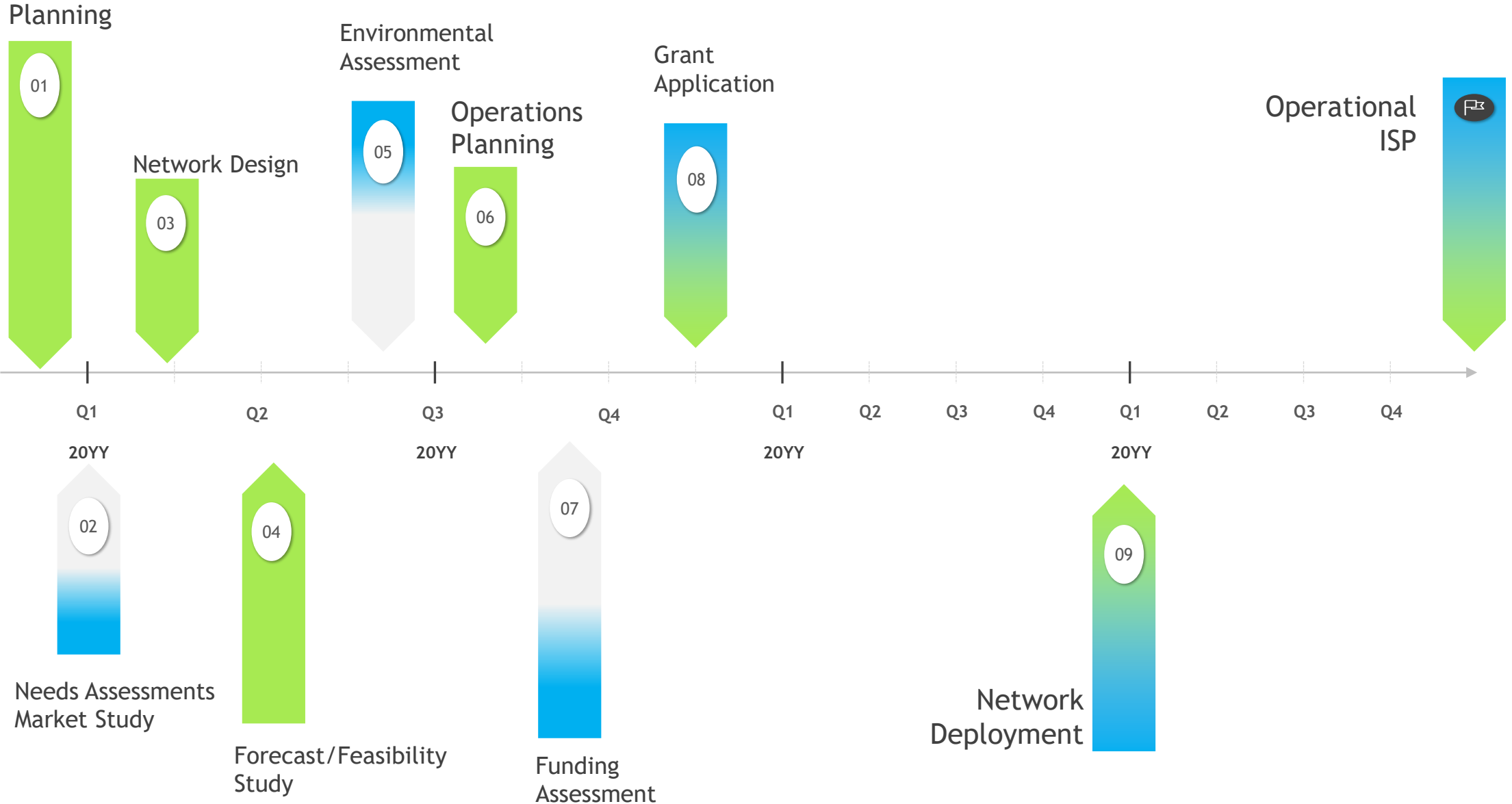
- ISP Planning
- Needs Assessment/Market Study
- Network Design
- Financial Forecasting & Feasibility
- Operational Assessment
- Funding Review
- Grant/Loan Application
- Deployment
- Operational ISP

# Realizing Potential

- Moss Adams is a fully integrated professional services firm dedicated to personally assisting Tribal clients with growing, managing, and protecting prosperity.
- With more than 4,200 professionals across more than 30 locations, we work with many Tribal Nations throughout the United States.



# Broadband Continuum



# Pre- Planning



# Pre-Planning

- Multi-Year Process



DEVELOP YOUR  
TEAM



ASSESS YOUR  
NEEDS?



OUTSIDE  
ASSISTANCE?



# Broadband Continuum

- **Funds for Planning**
  - Are there grants available for broadband planning?
  - BTA, TBCP, State Grants, BEAD, Reconnect
- **Pre-Planning**
  - Determine your identity
  - Develop your team
    - Key Tribal Advocates/Stakeholders
    - Find your Champion
    - Internal Resources
    - External Resources
      - Engineering
      - Legal
      - Financial



# Operations: “Type of Business” Designation

## Incumbent Local Exchange Carrier (ILEC)

- Requires Tribe to work with incumbent carrier
- Model-based support

## Internet Service Provider (ISP)

## Competitive Local Exchange Carrier (CLEC)

- Generally, an application must be filed with state

## Eligible Telecommunications Carrier (ETC)

- Lifeline





# Selecting Outside Consultants

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- Engineers, Consultants, Attorneys, Accountants, IT, etc.
- ✓ Request for Proposal (RFP) for Outside Vendors
- ✓ Qualifications
  - ✓ Telecommunications Background
  - ✓ Work for Tribal Organizations/Carriers
    - ✓ Familiar with Tribal Rules
    - ✓ Grant Development
    - ✓ Grant Application Success Rate



# Selecting Outside Consultants

- Engineers, Consultants, Attorneys, Accountants, IT, etc.
  - ✓ Understand the Regulatory Environment
    - Types of carriers (Price Cap, ILEC, CLEC, ISPs)
    - Funding Mechanisms Available for Tribal Broadband Providers.
    - HCL, CAF BLS, CAF ICC, BCM, Corporate Caps, Op Ex Caps, ACP, Lifeline, Schools and Libraries, Healthcare, etc.



# Selecting Outside Consultants

- Engineers, Consultants, Attorneys, Accountants, IT, etc.
  - ✓ Compliance Rules and Regulations
    - ✓ Mapping/GIS capabilities
    - ✓ Performance Measuring
    - ✓ Federal Form Filings
    - ✓ State Form Filings
    - ✓ Financial Reporting Requirements



# Market Assessment



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Moss Adams - Proprietary

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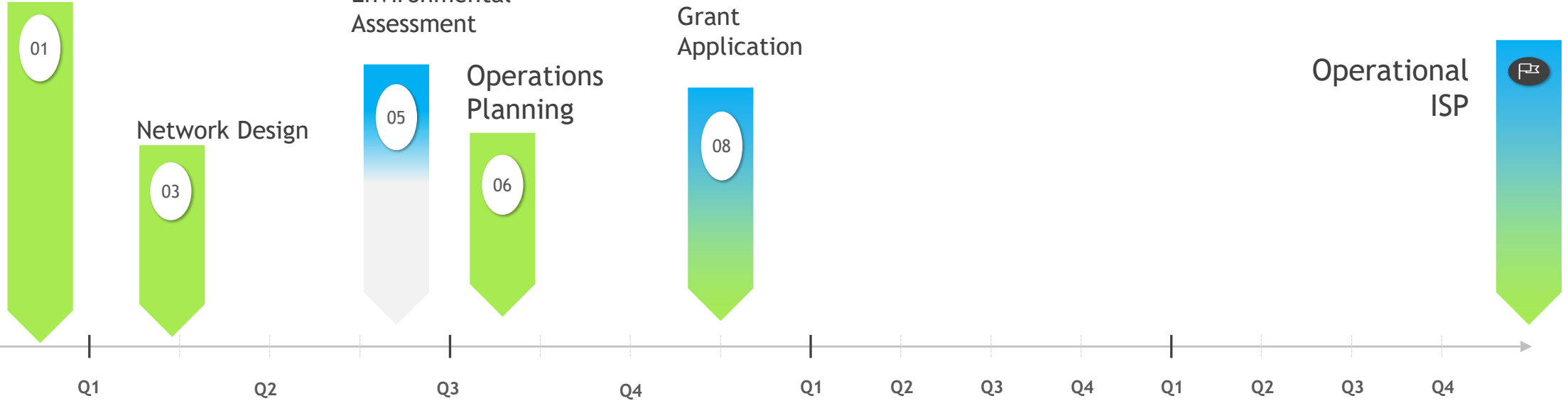
# Broadband Continuum

Planning

Environmental Assessment

Grant Application

Operational ISP



20YY

02

Needs Assessments  
Market Study

04

Forecast/Feasibility Study

07

Funding Assessment

09

Network Deployment



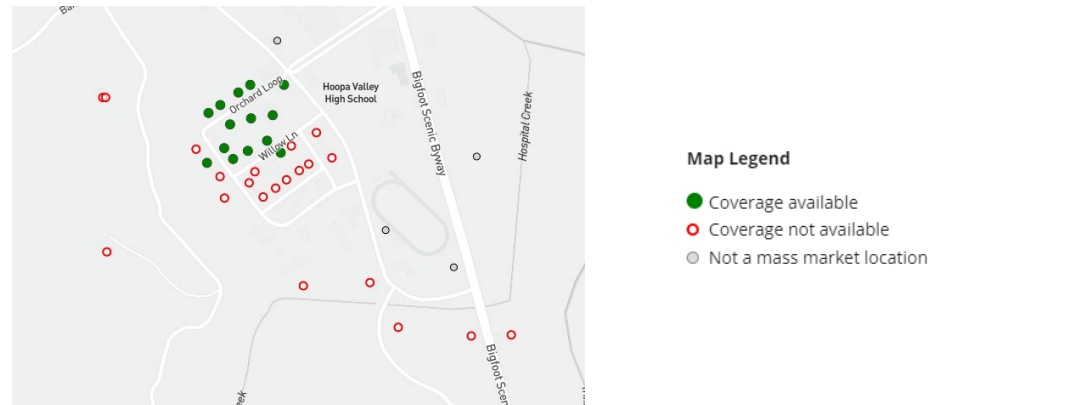
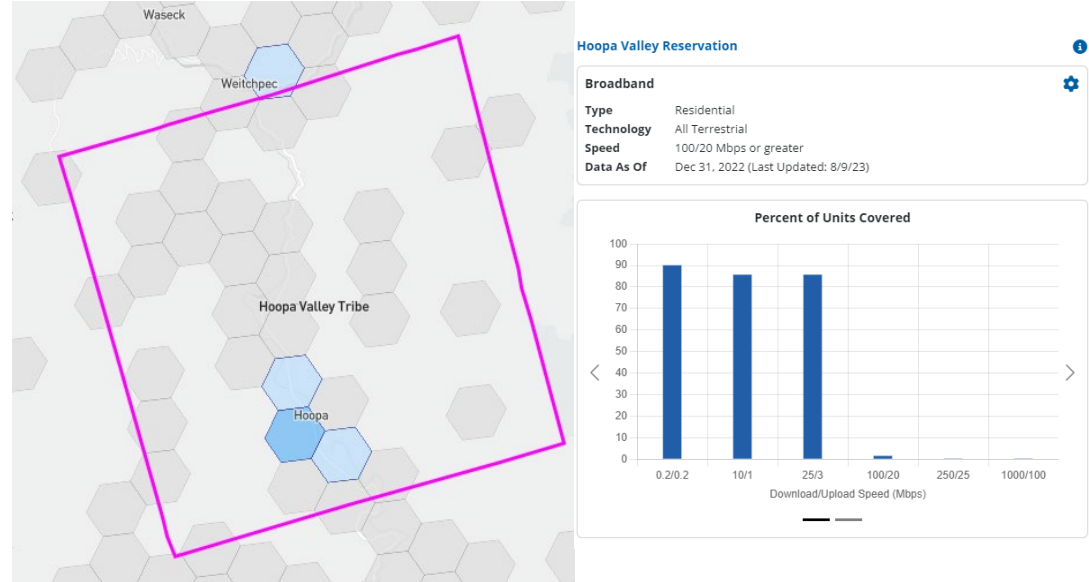
# Needs Assessment/Market Study

- Determine the market for broadband services
- Get to know your potential customers
- Results feed into planning and feasibility studies
- Key information to be gathered
  - Serviceable Locations (residence, business, community anchor institutions)
  - Assessment of existing broadband service providers (speeds, prices, packages)
  - Survey of households, businesses, CAIs to determine needs and expectations
  - Pricing analysis
  - Potential community and network anchor tenant commitments

# Needs Assessment/Market Study

- Serviceable Locations

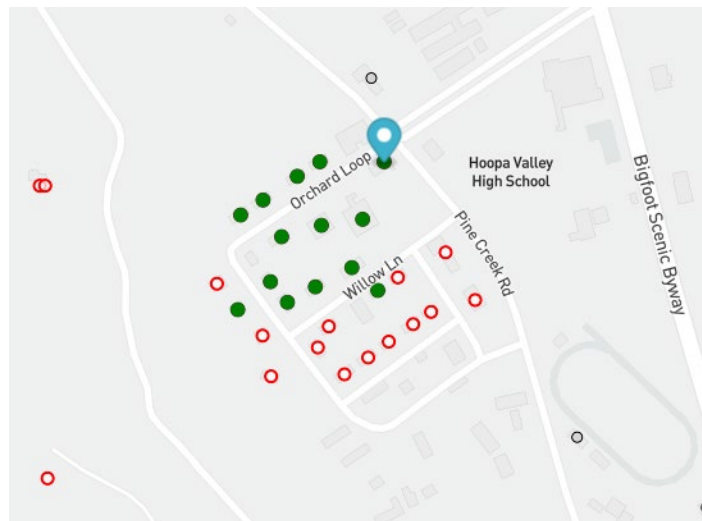
- GIS Intensive
- Sources include the FCC's National Broadband Map (NBM), NTIA's funding map, and state maps
- NBM allows no cost access to Broadband Serviceable Location Fabric (BSLF) data for Tribal governments
- Other sources: county parcel data, etc.



# Needs Assessment/Market Study

- Existing Service Providers

- FCC NBM contains provider information
- Name
- Technology
- Speeds



**284 ORCHARD LOOP** Location Challenge  
**HOOPA, CA 95546**

Status: **Served** | Business | Unit Count: 1

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**Broadband** ⚙️

**Type** Residential  
**Technology** All Terrestrial  
**Speed** 100/20 Mbps or greater  
**Data As Of** Dec 31, 2022 (Last Updated: 8/9/23)

**Residential** | Business Availability Challenge

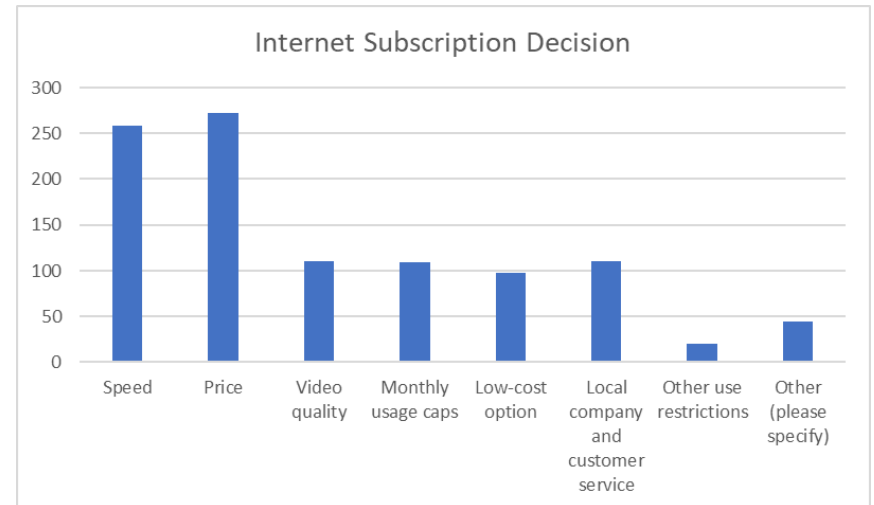
Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
▶ California Internet	Licensed Fixed Wireless	100	20	
▶ Hughes Network Systems, LLC	GSO Satellite	25	3	
▶ Space Exploration Technologies Corp.	NGSO Satellite	50	10	
▶ Velocity Communications, Inc.	Unlicensed Fixed Wireless	30	3	





# Needs Assessment/Market Study

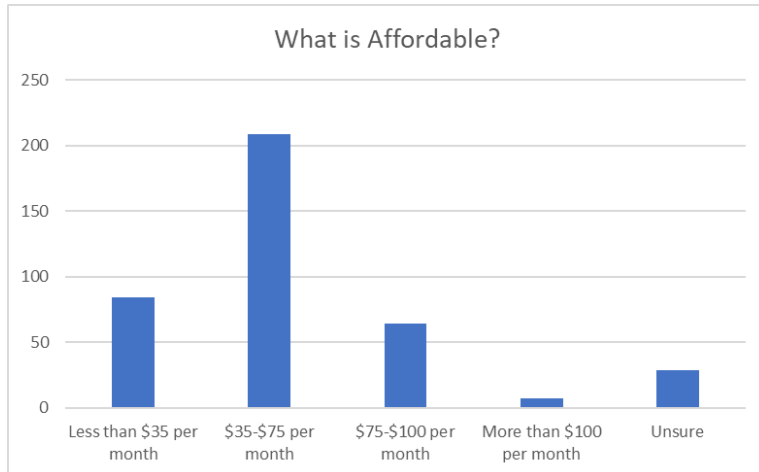
- Survey of Households, Businesses, Anchor Institutions
  - Determine goals of potential customer contact
  - Determine ultimate use(s) of information
  - Key information for needs assessment and market study
    - Current state of internet service (if any)
    - Current provider rating
    - Internet use
    - Prices for service
    - Affordability



# Needs Assessment/Market Study

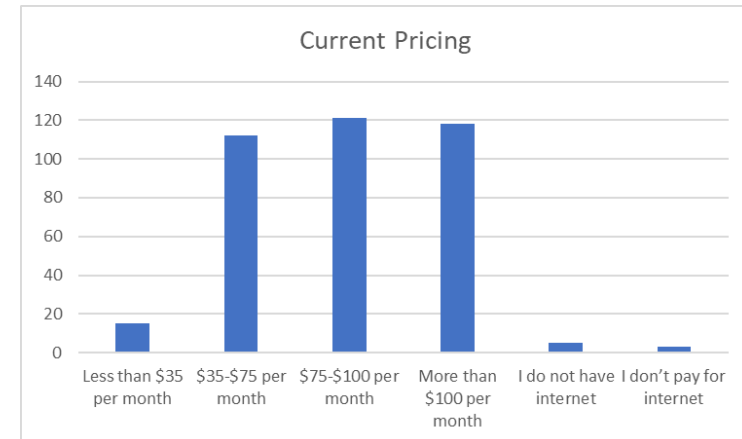
- Pricing Analysis


- Survey Results
- American Community Survey Data
- FCC Broadband Pricing Data



FCC Reasonably Comparable Rates

Download Bandwidth (Mbps)	Upload Bandwidth (Mbps)	Capacity Allowance (GB)	2023 U.S. Benchmark	2023 AK Benchmark
4	1	600	\$87.43	\$105.35
4	1	Unlimited	\$87.44	\$105.37
10	1	600	\$91.28	\$109.35
10	1	Unlimited	\$91.30	\$109.38
25	3	600	\$90.96	\$110.28
25	3	Unlimited	\$90.98	\$110.31
50	5	600	\$91.99	\$110.11
50	5	Unlimited	\$92.01	\$110.13
100	20	600	\$104.99	\$124.01
100	20	Unlimited	\$105.03	\$124.06
1000	500	600	\$142.71	\$167.57
1000	500	Unlimited	\$142.75	\$167.61
25	5	600	\$91.34	\$110.11
25	5	Unlimited	\$91.36	\$110.13
100	10	Unlimited	\$104.71	\$123.70
250	25	Unlimited	\$128.53	\$150.59
500	50	Unlimited	\$133.02	\$155.02
1000	100	Unlimited	\$144.96	\$169.84





# Needs Assessment/Market Study

- Potential community and network anchor tenant commitments
  - Community involvement and buy-in
  - Community Anchor Institutions
    - Examples: schools, libraries, medical and healthcare providers, public safety entities, public housing authorities, institutes of higher education
  - Broadband needs may differ from mass market services
  - Schools and libraries, including Tribal libraries and Tribal college and university libraries, may qualify for federal E-Rate support

# Market Study – Sample Survey Results

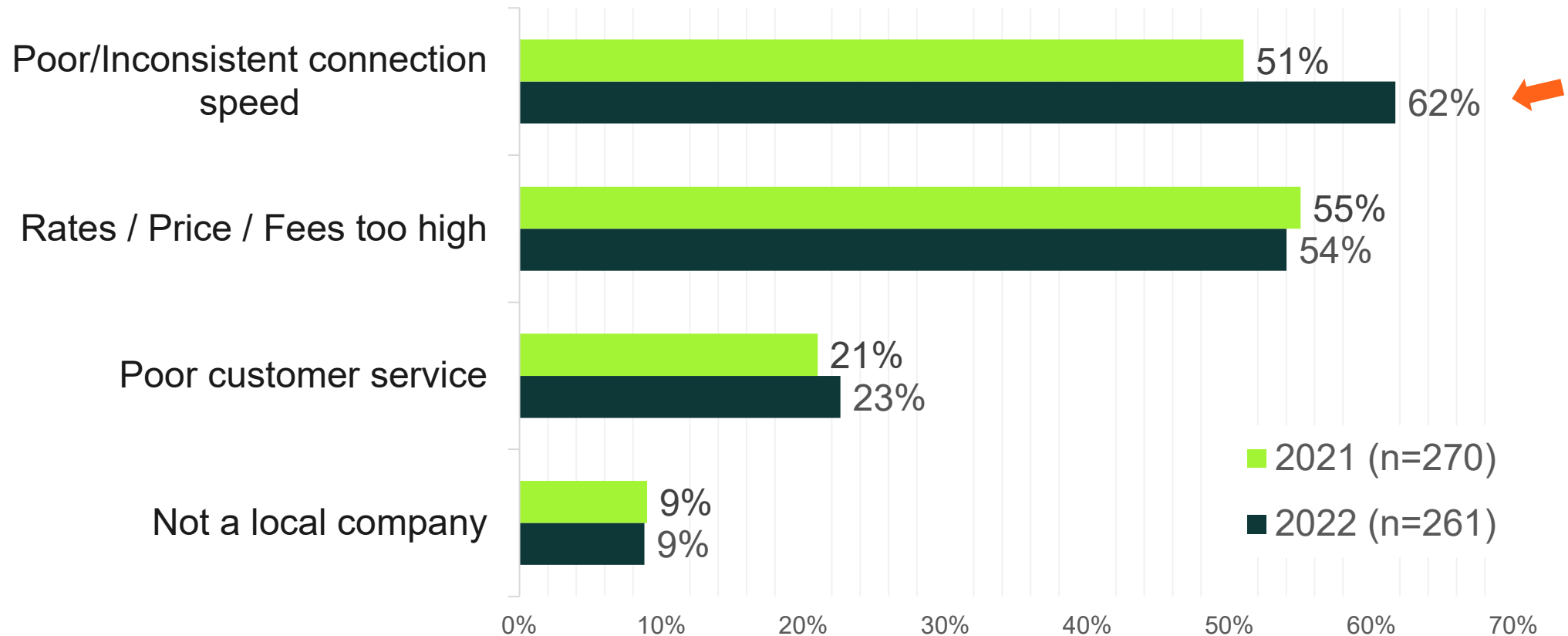
- **Market Assessment**

- Innovative Systems and Pivot
- Approx 850 Rural Residential
- Understand the satisfaction and usage trends of Rural Internet customers
  - Locations
  - Competition
  - Speed Packages
  - Pricing
  - Customer Satisfaction



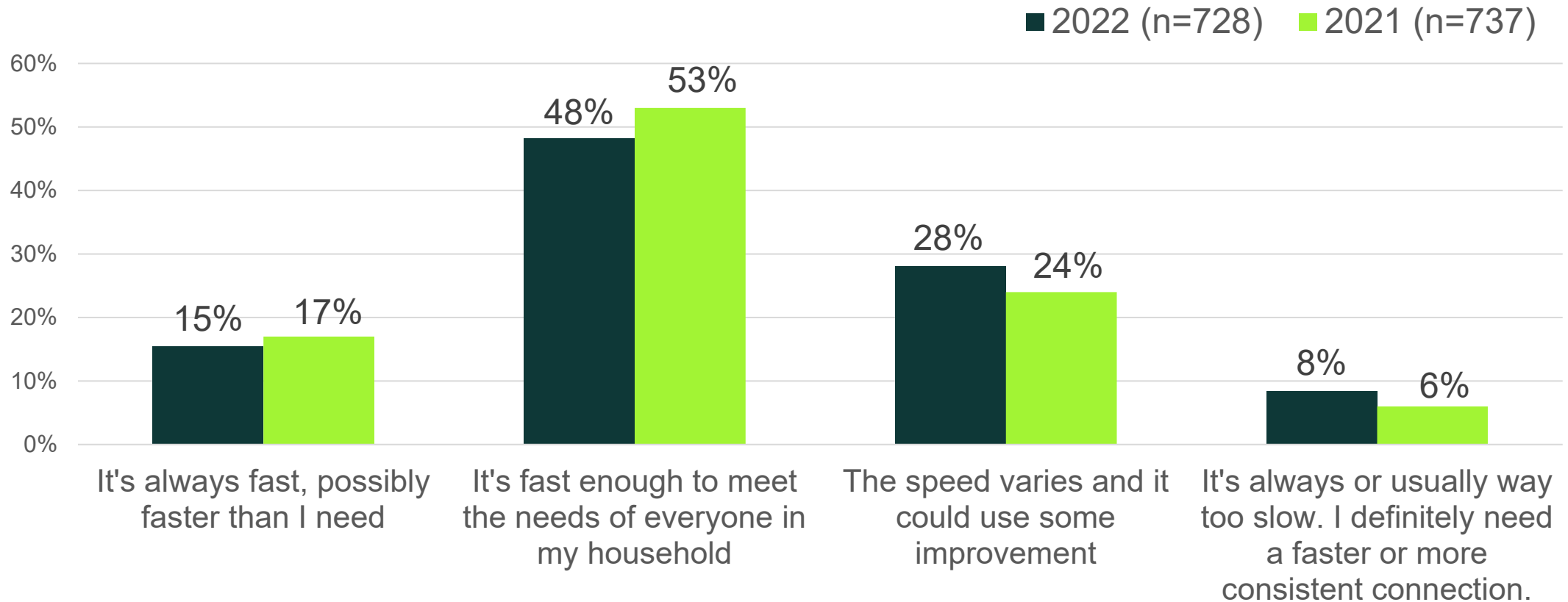
# Drivers of Low Internet Satisfaction

What keeps you from giving a higher rating? *Check all that apply*  
(Asked of those who gave a rating of 7 or lower on Internet Satisfaction.)



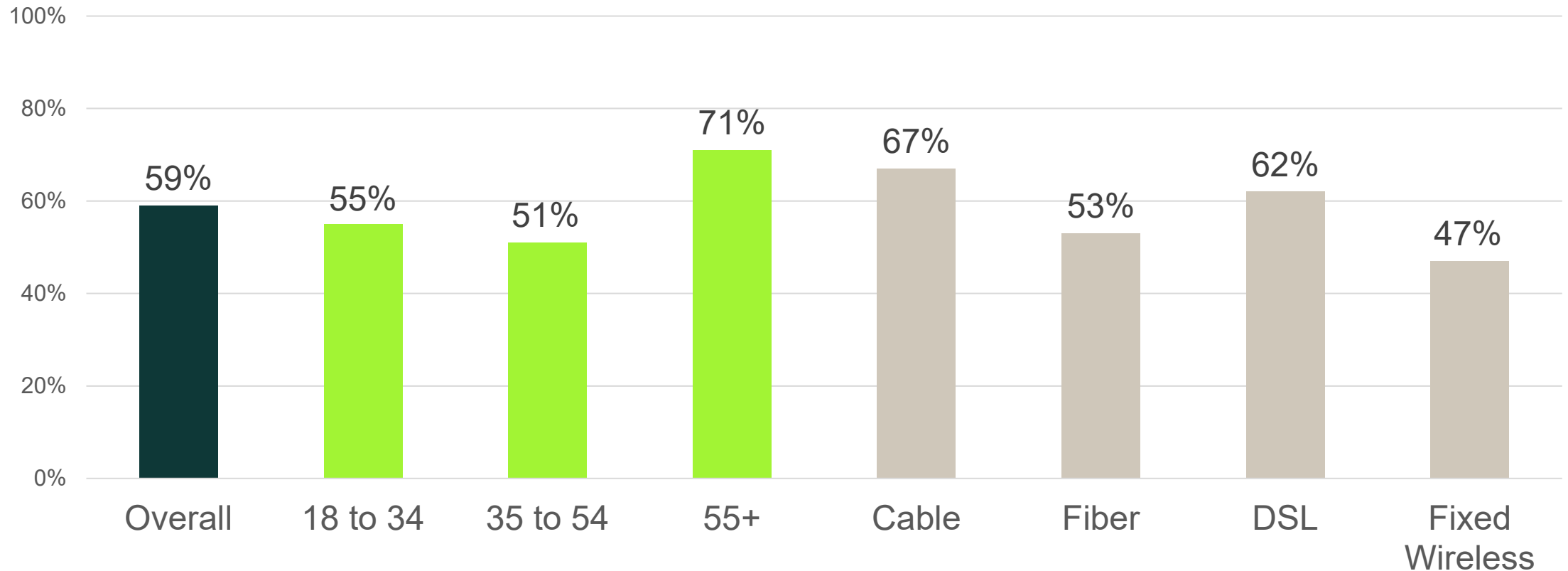
# Opinions of Home Internet Speed

Which one of the following best describes your opinion about your home internet speed?



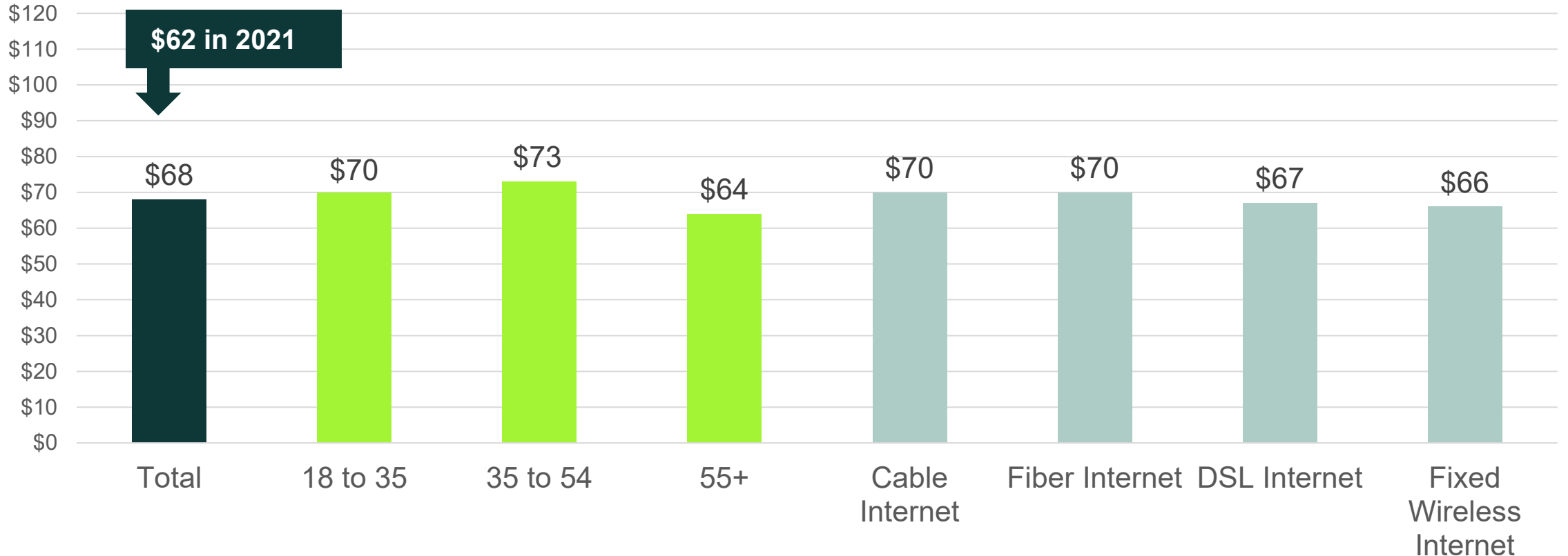
# Aware that Faster Speeds are Available

That you know of, are there internet speeds available to you that are faster than the speed you are getting now, whether from your current provider or a different one? *Percentage indicates those answering "Yes"*



# Average Current Spend on Internet Alone

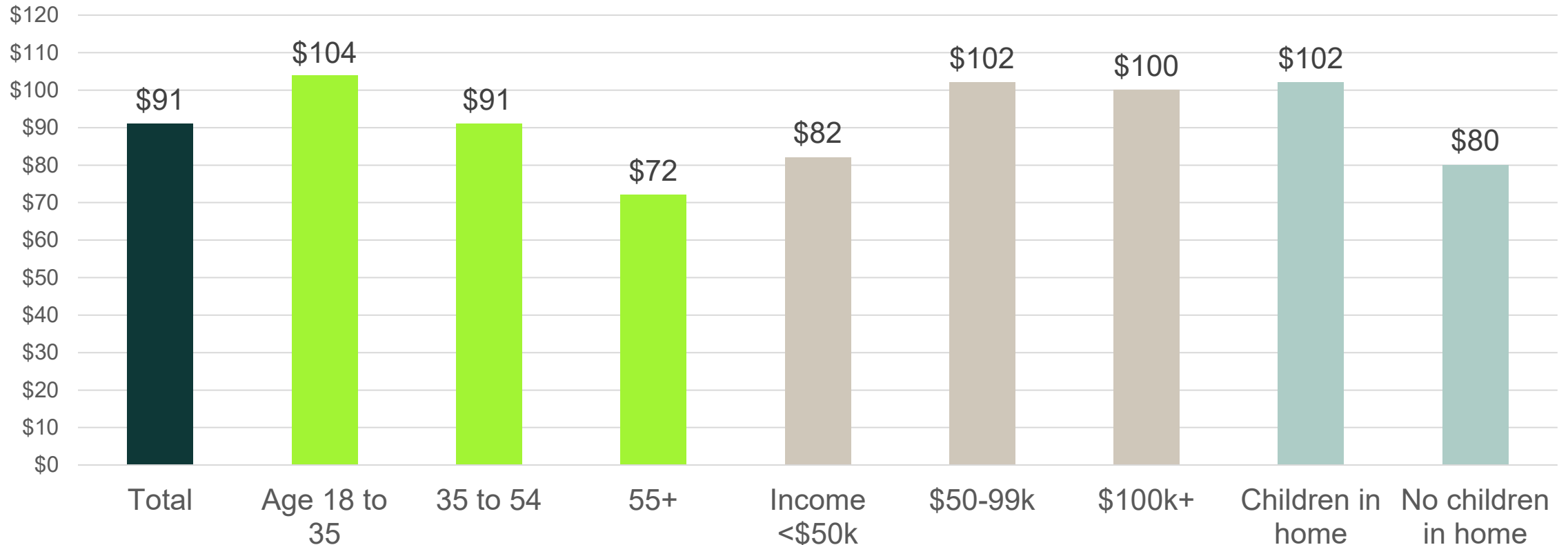
What is the approximate amount you're paying per month for just your internet service?





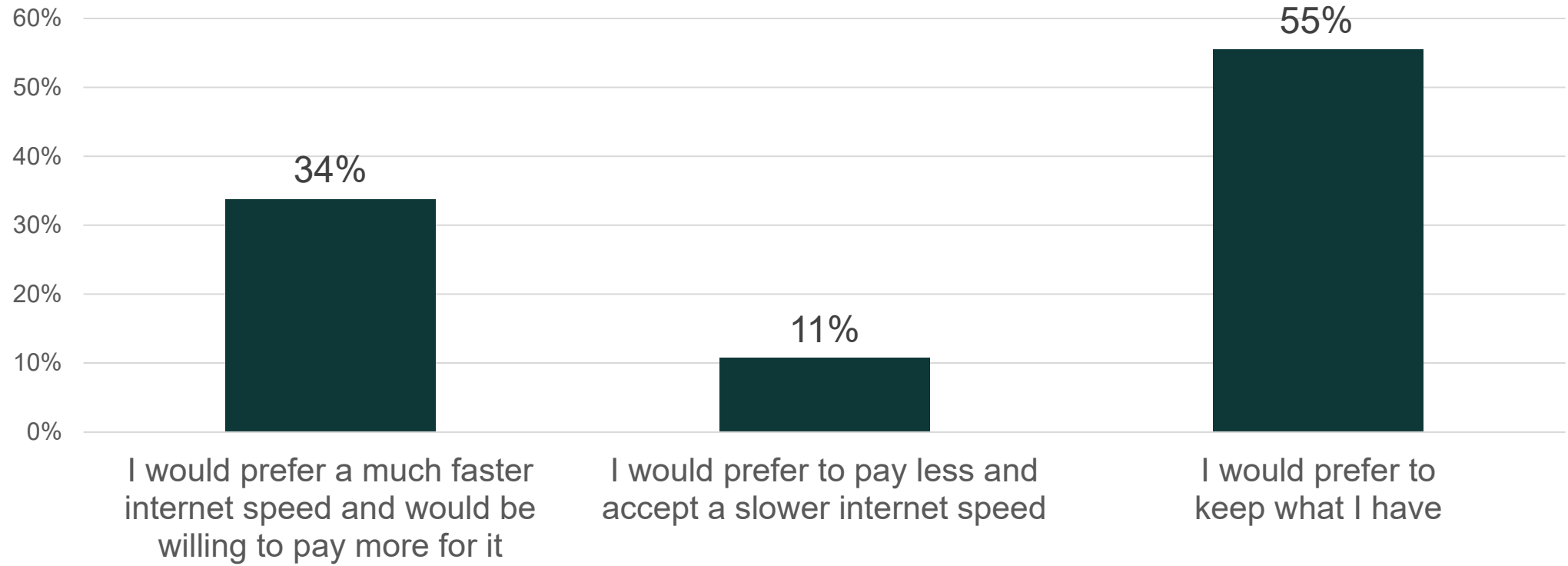
# Amount Willing to Spend for Faster Internet

How much are you willing to pay per month (in total) for internet service that is much faster than you're getting now?



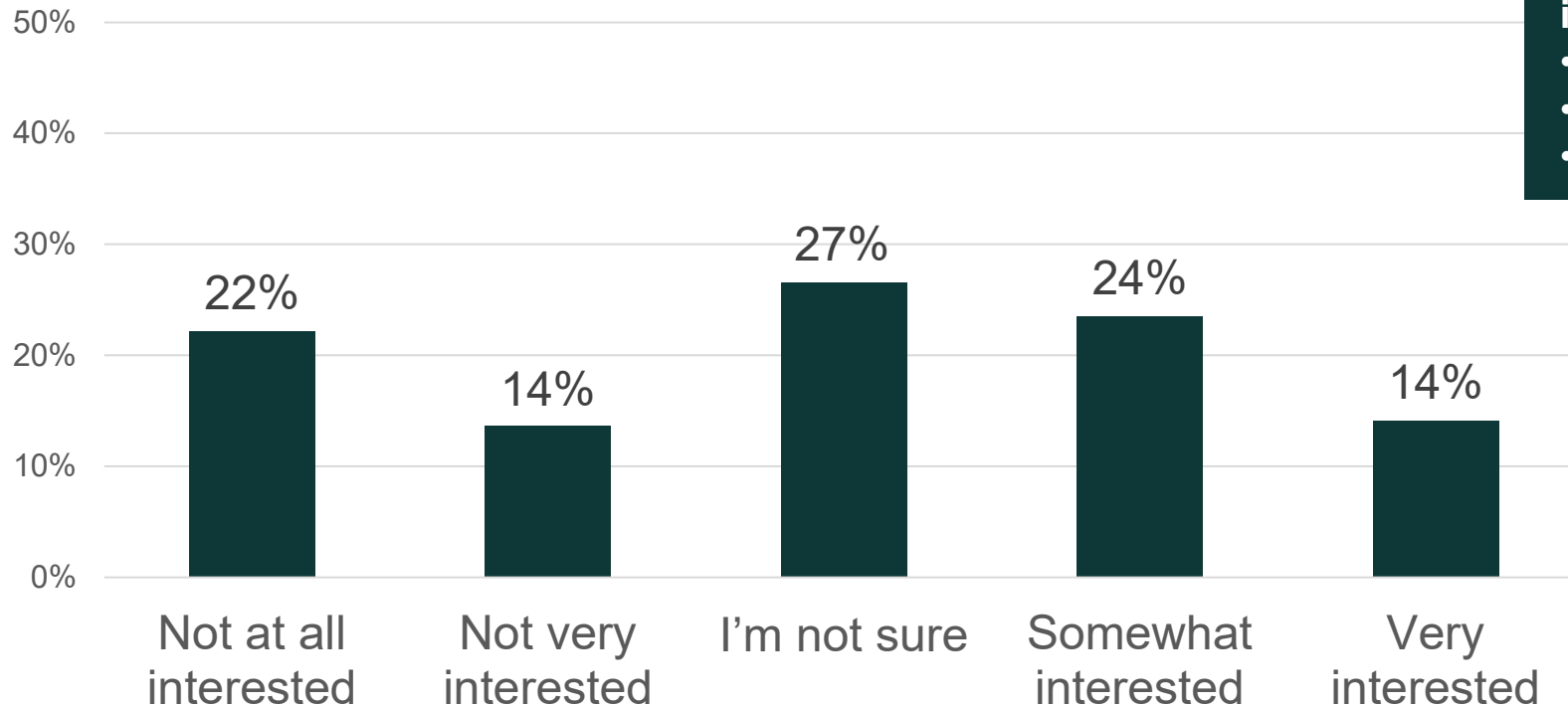
# Preference for Faster Speed or Lower Price

Compared to what you're paying for internet now, which of the following would you prefer for your household?



# Interest in a Free Trial

How interested would you be in a free trial of a faster internet speed for one month to see how it impacts your online experience?



**Somewhat + very interested by age:**

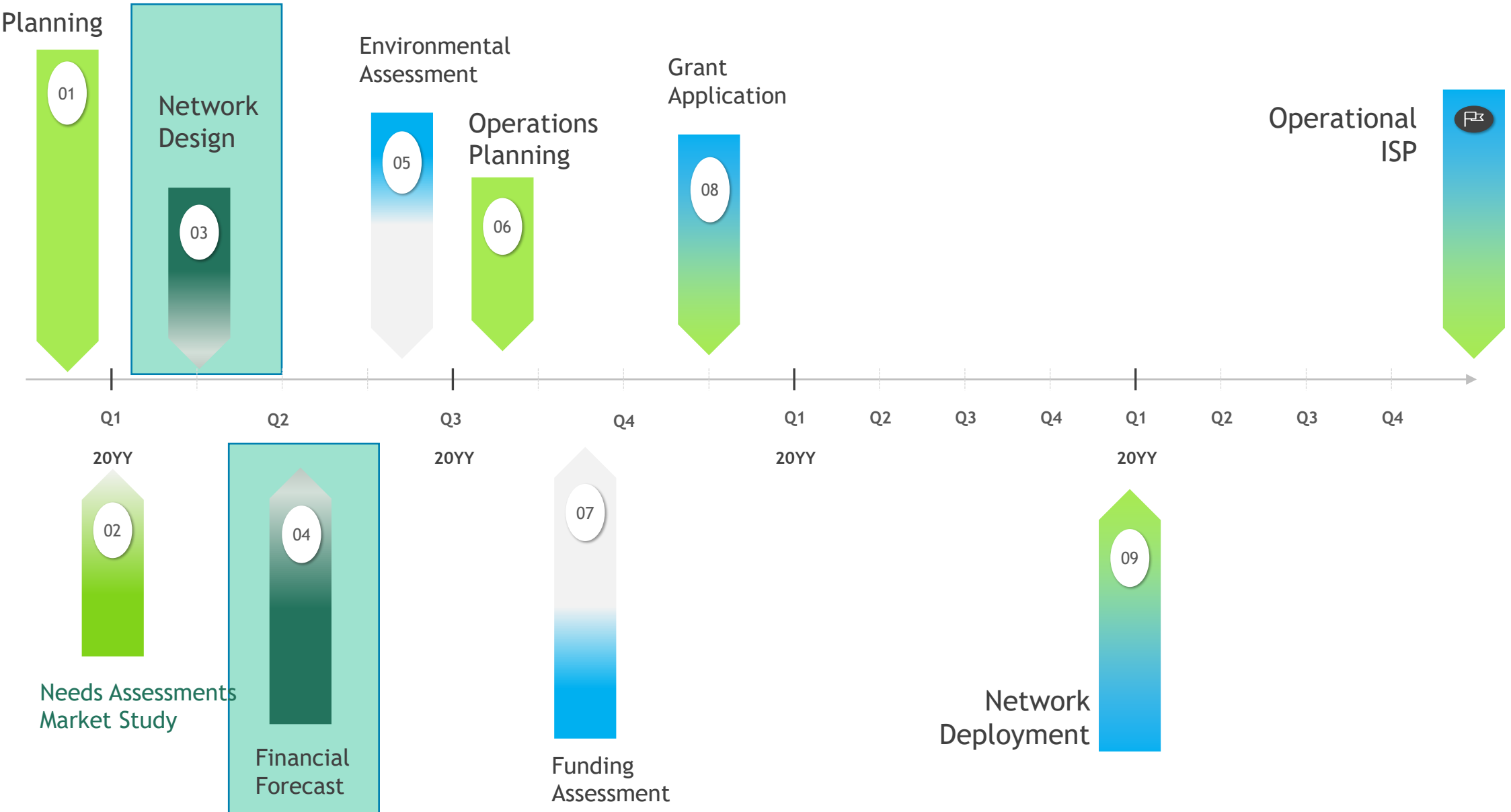
- 38% of 18 to 34
- 46% of 35 to 54
- 35% of 55+



A silhouette of a person's head and shoulders is shown in profile, pointing their right hand towards a complex network diagram. The diagram consists of numerous red nodes (circles) connected by a dense web of red lines. The background is a gradient of blue and cyan. The overall image conveys a sense of technical analysis or network management.

# Network Design & Financial Forecasting

# Broadband Continuum



# Network Design & Engineering

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## *Things to Think About:*

### Engineering for the Future

- Technology Transitions (i.e. TDM to IP; later slide shows trend of copper to fiber)
- Sources of revenues
- 5G will require fiber
- Cost aspect

### Public Interest

- The most efficient technologies to advance universal service
- Bringing current technologies to high-cost areas



# Network Design & Engineering

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## *Things to Think About:*

### Affordability

- The best way to provide service
- ACP & Lifeline

### Accountability

- Broadband mapping
- Performance Testing



# Network Design & Engineering

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Let's look at the following:

➤ Useful lives of technology

❖ **Fiber**

- 20+ years

❖ **Electronics**

- 8 to 12 years

Let's take the following comparison:

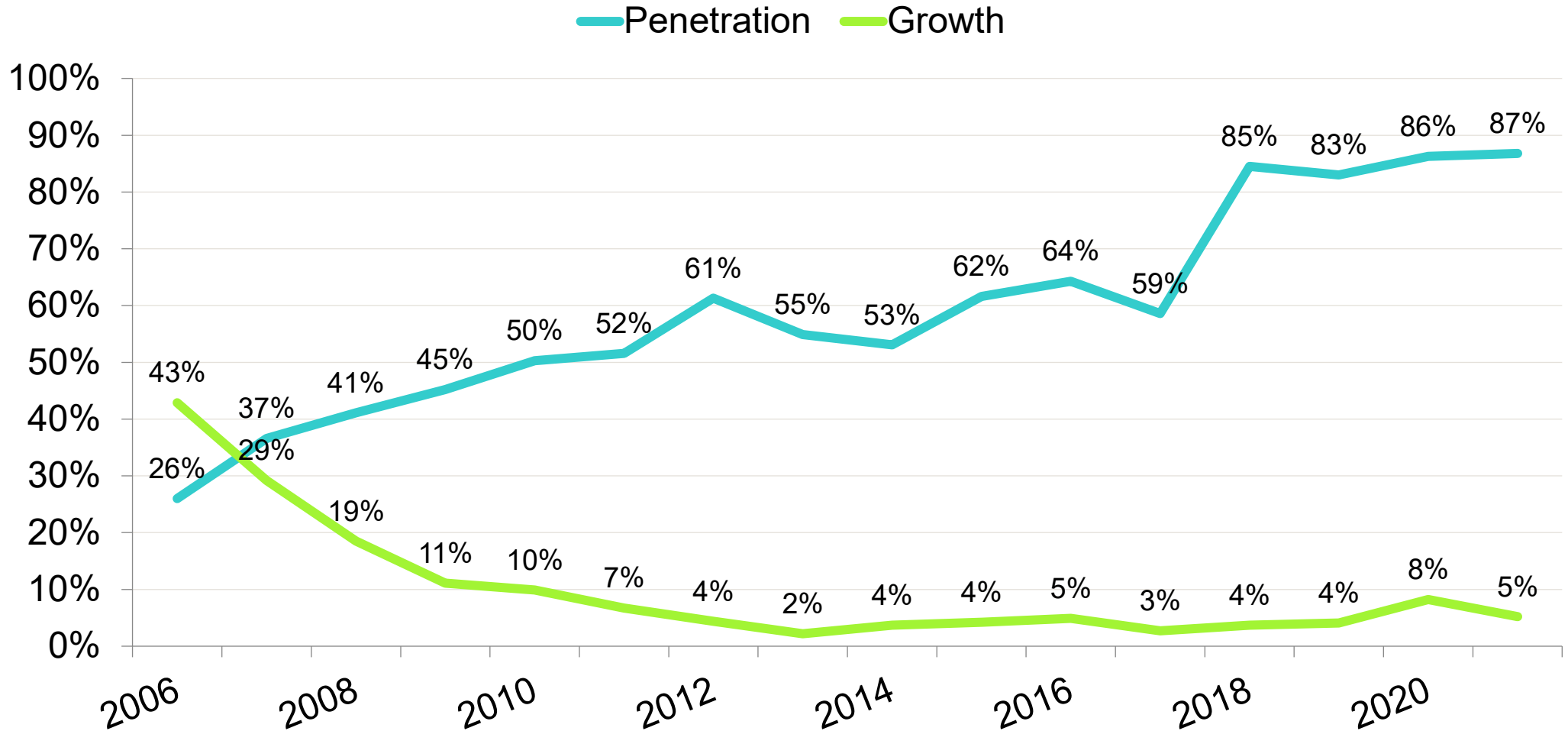
1. **Fiber.** Significant deployment costs; long useful life; incomparable transport medium; infinite capacity; ultimate quality
2. **Fixed Wireless.** Lessor deployment costs; shorter useful life; robust but finite service capacity (even with 5G...propagation limitations)



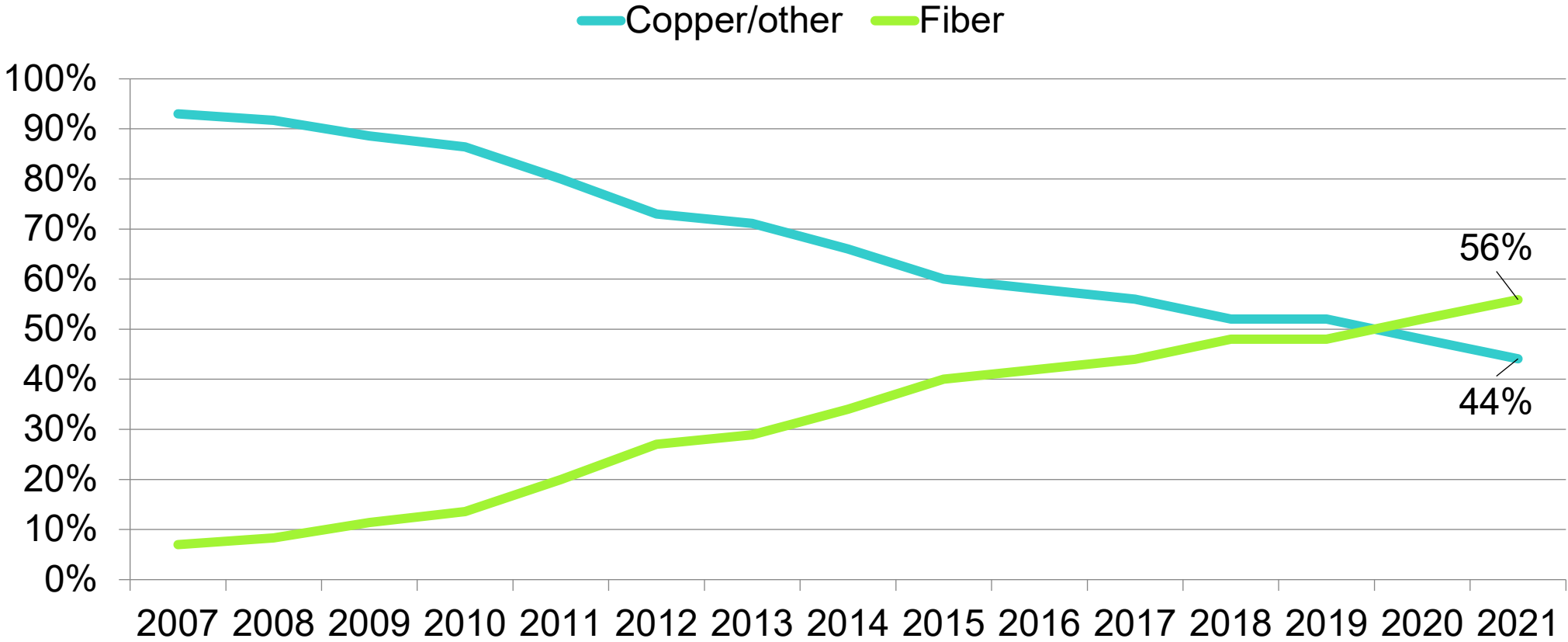


# Broadband Deployment

## Growth and Penetration



# Upgrading Network Facilities



# Financial Forecast/Analysis

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- Must be performed early in the process
- Complete set of financial statements is absolutely critical when developing a business plan
  - **Balance sheet**
  - **Income statement**
  - **Statement of cash flows**
- Five to ten-year forecast should always accompany a business plan
- Criteria exist that will guide you during the planning process (next slides)



# Financial Forecast/Analysis

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Metrics to think about when considering the viability of a financial forecast

- **Cost**
  - Public resources (FCC data, USAC data, Tribal-specific data, GAO)
  - Engineers, consultants
- **Demand**
  - Market surveys and analysis
- **Pricing**
  - Industry tariffs
  - Competition
  - Affordability
- **Funding opportunities**

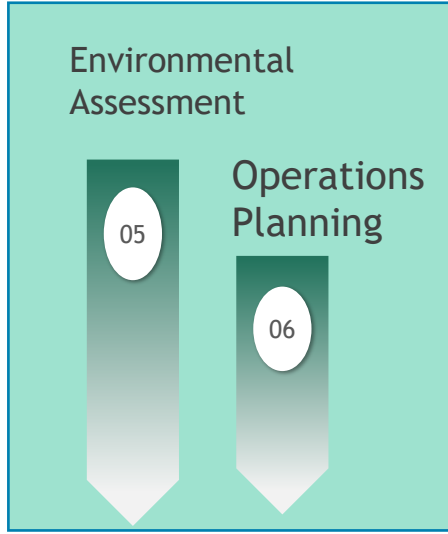


# Broadband Continuum

Planning



Network Design



Grant Application



Operational ISP



Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

20YY

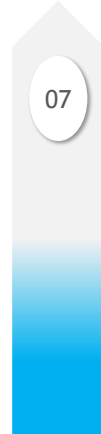


Needs Assessments  
Market Study



Financial  
Forecast

20YY



Funding  
Assessment

20YY



Network  
Deployment

20YY

# Broadband Continuum

- **Environmental Assessment**

- Impact Assessments
- Rights of Way
- DOT, County, State, BLM, Forest Service, FAA,

- **Operations**

- Determine employee need
- Budget considerations
- Sustaining operations



# Environmental Assessment

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- National Environmental Policy Act (NEPA) compliance
  - Environmental reviews are necessary under this Act
  - Shapefiles for service areas where fiber and tower site construction are proposed will likely be necessary for uploading to Information for Planning and Consultation's (IPAC) Environmental Conservation Online System to determine presence of threatened or endangered plants and species
- Environmental, historic preservation, and cultural requirements must be met
- Typically, the National Historical Preservation Act (NHPA) requires Tribal consultation in steps of a process when a project may affect historic properties that are on Tribal lands



# Operations Planning

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## Operations

- How do you forecast revenues & expenses for your company?
- How many employees will you need?
- What types of employees will I need?
- Do I need a detailed budget, including summary of assumptions?

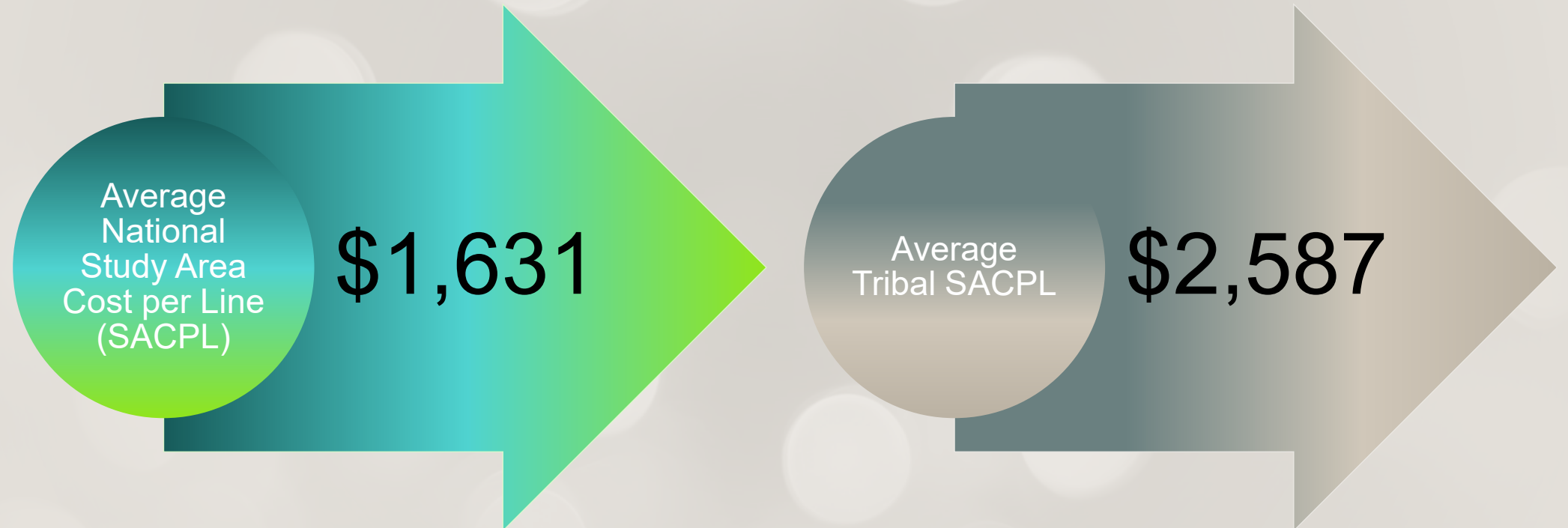




# Sustainability of Networks

- Defined: In the broadest sense, sustainability refers to the ability to maintain or support a process continuously over time. In the context of deploying voice & broadband networks while establishing affordable pricing for all consumers, sustainability refers to maintaining and keeping these networks viable for future generations
- The next few slides will take a look at insights and statistics related to both serving area and sustainability cost metrics

# Serving Area Annual Cost Metrics (for incumbent local exchange carriers based on publicly available information)



# Operating Annual Cost Metrics per line (for incumbent local exchange carriers, based on publicly available information)

## National Average

- \$1,386
- \$115.50/mo

## Average Tribal

- \$2,199
- \$183.25/mo

# Breakdown of Broadband Pricing

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- The 2024 national retail broadband benchmark for 100/20 service (unlimited capacity) is \$92.24/mo (\$134.23 for AK). Guesses on how much of this price is attributable to CapX versus Sustaining the network?
  - CapX: \$13.84 or ~ 15%
  - Opex/Sustainability: \$78.40 or ~85%



# Funding Assessment & Grant/Loan Application

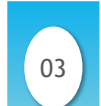


# Broadband Continuum

Planning



Network Design



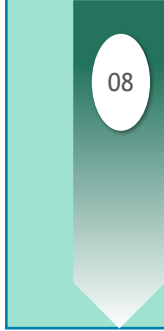
Environmental Assessment



Operations Planning



Grant Application



Operational ISP



Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

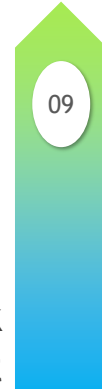
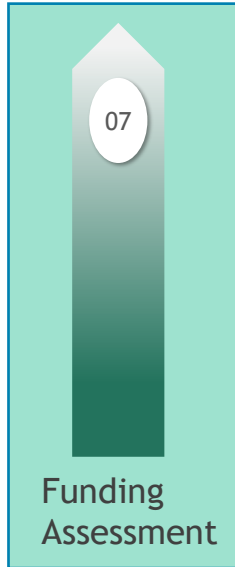
Q4

20YY

20YY

20YY

20YY



Needs Assessments  
Market Study

Financial  
Forecast

Funding  
Assessment

Network  
Deployment

# Funding Assessment/Grant Application

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- Deployment
  - **Reconnect**
  - **Broadband Equity, Access, & Deployment (BEAD)**
  - **State Grants**
- Affordability / Access
  - **RUS Distance Learning and Telemedicine**
  - **Digital Equity Grants**
  - **State Grants**



# ReConnect Program – Round 5

- Administered by USDA/RUS
- Funding categories
  - 100% loan
  - 50/50 loan/grant combination
  - 100% grant (25% match)
  - 100% grant for Tribal governments, Alaska Native Corporations, Colonias, persistent poverty areas, and socially vulnerable communities (no match)
- At least 90% of households in the PFSA must lack access to fixed, terrestrial broadband with speeds of 25/3 Mbps
- Eligible areas must also be rural (city, town, or incorporated area with 20,000 or fewer population, cannot be an urbanized area adjacent to a city or town with population of greater than 50,000)





# ReConnect Program (Cont.)

- **Tribal Provisions**
  - Tribal government funding category – includes projects on Tribal lands, lands subject to restrictions on alienation imposed by the United States on Indian Lands; or land that they own, provide services to, or administer
  - Tribal entities proposing broadband service on Tribal Lands may self-certify that sufficient access to broadband does not exist on the Tribal Lands covered under the PFSA (RUS will check, however)
  - For Tribal entities applying for 100 percent grants that are willing to guarantee that the proposed project will be constructed, these applicants –
    - Do not have to submit the five-year pro forma financial projections or maps of any Non-Funded Service Areas (NFSA)
    - Will not be required to provide an irrevocable letter of credit (ILOC); however an ILOC remains an option for Tribal entities that cannot provide the required lien on grant assets
  - Tribal Resolution of Consent – certification from Tribal official is required if service is being proposed over or on Tribal Lands. Any non-Tribal applicant that fails to provide a certification to provide service on the Tribal Lands identified in the PFSA will not be considered for funding.



# ReConnect Program (Cont.)

Criteria	Description	Points
Rurality of PFSA	Based on population density per square mile or distance from cities/towns with population >50,000	25
Economic Need	Utilizes the county poverty percentage from the US Census SAIPE Program	20
Affordability	Includes at least one low-cost internet option for households	20
Labor Standards	Incorporates strong labor standards and protections in project plans	20
Tribal Areas	For projects significantly serving Tribal Lands	15
Local Governments, Non-profits, and Cooperatives	Applications from these entities	15
Socially Vulnerable Communities	Serving communities defined as socially vulnerable	15
Net Neutrality	Commitment to principles of net neutrality	10
Most Unserved Locations Per Square Mile	Prioritizes states with high concentrations of unserved locations	Up to 10
Total Possible Points		150



# Tribal Broadband Connectivity Program

## HISTORY

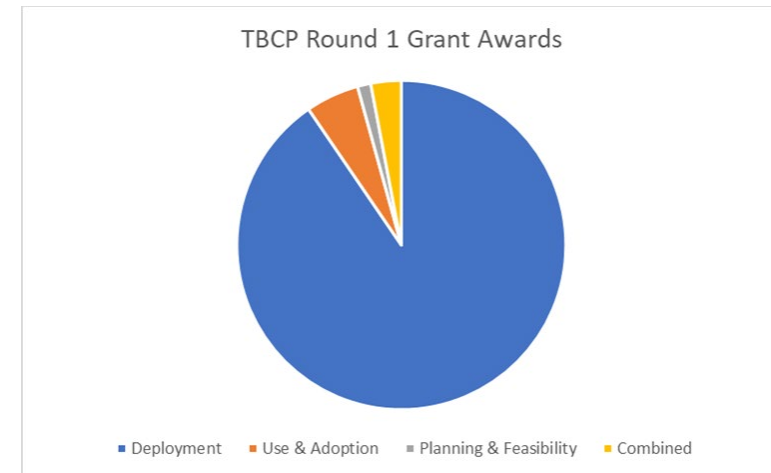
- Initially established by the 2021 Consolidated Appropriations Act
  - \$980 million
- Designed to expand access to broadband service on Tribal lands
- Eligible entities include Tribal governments and organizations, Tribal colleges or universities, and Alaska Native Corporations
- Grant funding for deployment, use and adoption, planning
- Prioritize unserved areas (lacking 25/3 Mbps)
  - Tribal self-certification of unserved areas
- No matching or cost sharing
- \$500,000 minimum allocation to applying Tribes



# Tribal Broadband Connectivity Program (Cont.)

## ROUND 1

- IIJA added \$1 billion (total funding \$1.980b)
- ~300 applications received, \$5 billion in requested funding
- Total awarded \$1,862,042,626
  - 226 projects funded
- Project awards
  - 130 deployment
  - 46 use and adoption
  - 33 planning and feasibility
  - 17 combination



# Tribal Broadband Connectivity Program (Cont.)

## ROUND 2

- NOFO released July 28, 2023
- \$980 million total funding available
- Projects limited to infrastructure deployment and use & adoption
- \$500,000 minimum for applying Tribes that did not receive Round 1 funding
- Application window closed on March 22, 2024
- Expected funding ranges
  - Infrastructure Deployment: \$1 million - \$50 million
  - Use & Adoption: \$100,000 - \$2.5 million
- Funding targeted to unserved (no 25/3 Mbps) locations
- Tribal self-certification of unserved areas still available, with additional conditions



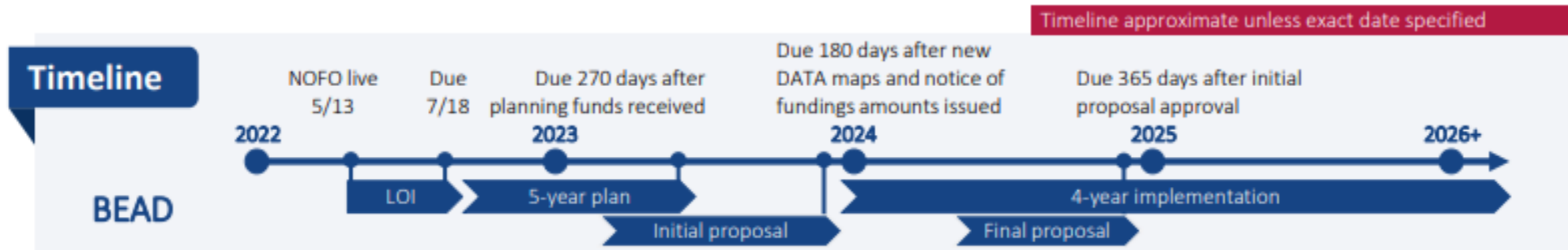
# Broadband Equity, Access and Deployment

- Administered by NTIA
- \$42.45 billion from IIJA
- Eligible Entities: States, Washington, D.C., Puerto Rico, and U.S. Territories
  - Tribal governments not directly eligible, but can be subgrantees
- Eligible Areas
  - Unserved locations: no access to 25/3 Mbps
  - Underserved locations: no access to 100/20 Mbps
  - Locations must be served with reliable broadband service to be counted as served—excludes satellite and unlicensed fixed wireless



# Broadband Equity, Access and Deployment

- Allowable costs include construction, improvement, acquisition of facilities to provide broadband service, digital literacy, implementation of digital equity plans, etc.
- Allocations to states announced on June 26, 2023



# Broadband Equity, Access and Deployment

## BEAD/Eligible Entity Process

- **Submit Initial proposals to NTIA**
  - Volume I – Process to determine eligible locations, challenge process
  - Volume II – Process to award funding, program requirements
- **Key Points**
  - Challenge process is important
  - BEAD enforceable commitment on Tribal lands must include binding agreement with Tribal government
  - Tribal governments are eligible to apply
- **Status – eligible entities are implementing challenge processes**
  - 12 states are finished with challenges
  - 7 have currently open challenge windows





# Broadband Equity, Access and Deployment

Eligible Entity	Challenge Process Portal Opens	Challenge Process Portal Closes	Link to State Challenge Submission Portal
Arizona	03/15/2024	05/14/2024	<a href="#">The Challenge Process</a>
Arkansas	03/20/2024	TBA	<a href="#">Arkansas BEAD Mapping Challenge Process</a>
Connecticut	04/01/2024	04/30/2024	<a href="#">Connecticut BEAD Challenge Portal</a>
Michigan	03/25/2024	04/23/2024	<a href="#">BEAD Challenge Process</a>
Missouri	03/25/2024	04/23/2024	<a href="#">Office of Broadband: Broadband Availability Challenge</a>
Nebraska	03/15/2024	04/14/2024	<a href="#">Challenge - Nebraska Broadband</a>
New York	03/19/2024	04/18/2024	<a href="#">New York State Broadband Challenge Process</a>   <a href="#">ConnectALL Office</a>

Source: [State and Territory Challenge Process Tracker](#) | [Internet for All](#)



# RUS Distance Learning and Telemedicine Grants

- RUS DLT Notice of Funding Opportunity released February 29
  - \$60 million in estimated funding
  - Applications are due April 29
- Eligible areas – rural communities with populations of 20,000 or less
- Eligible entities include federally-recognized Tribes
- Use of DLT funds include:
  - Audio, video, and interactive video equipment
  - Broadband facilities used for distance learning or telemedicine (up to a certain percentage)
  - Computer hardware, network components, and software
  - Instructional programming
  - Limited technical assistance and instruction on how to use distance learning and telemedicine equipment
  - 15% Match Required



# Digital Equity Capacity Grant Program

- Part of the Infrastructure Investment and Jobs Act
- \$1.44 billion in total funding
- Notice of Funding Opportunity released March 29, 2024
- For states, funding to implement Digital Equity Plans
- Funding to address
  - The availability and affordability of access to broadband technology
  - Online accessibility and inclusivity of public resources and services
  - Digital literacy
  - Awareness of online privacy and cybersecurity
  - The availability and affordability of consumer devices and technical support for those devices
- Separate competitive grant funding opportunity for Native Entities (Tribes, Alaska Native entities, Native Hawaiian organizations)
  - \$42,000,000 for Digital Equity Capacity grants
  - \$3,300,000 for Digital Equity Planning grants (must be combined with Capacity grants)
- Application window for Native entities opens September 25, 2024 and closes February 7, 2025



# The Broadband Grant/Loan Application Considerations

How much time to allot for the Application?

Develop the Merit Score for your Application

What is Needed for the Application?

Award Notification

Release of Funds

Prepare for Audits



# Broadband Loan/Grant Application

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## Outside Assistance

Engineers- Plant Design  
Consultants – Financial, Compliance, GIS/Mapping, IT/Cybersecurity  
Attorney  
Vendor Relationships  
Contractual Relationships



## Standard Forms / Certifications / Disclosures

Tribal Approval Resolutions  
Certification of unserved status



# The Broadband Grant/Loan Application

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Award Notification



Release of Funds



Deployment and  
Timeline Adherence



*Prepare for Audits*



# Broadband Continuum

Planning



Network Design



Environmental Assessment



Operations Planning

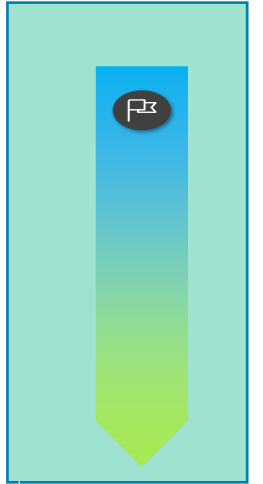


Grant Application



Operational ISP

Advocating



Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

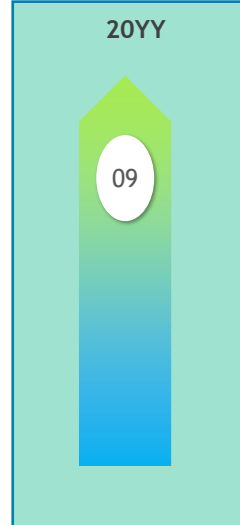
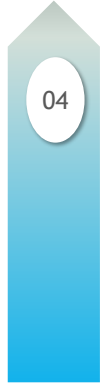
Q4

20YY

20YY

20YY

20YY



Needs Assessments  
Market Study

Financial  
Forecast

Funding  
Assessment

Network  
Deployment

# Advocacy

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Advocacy is critical to the success of Tribal Nations' broadband deployment and adoption. NTTA continues to be highly involved in “everything Tribal telecommunications” and has a high success rate in helping to shape regulatory policy for tribal telecommunications providers. A few items that NTTA has been involved with:

For ILECs:

- Incorporating a Tribal Broadband Factor into the Universal Service Program;
- Creating an additional allowance of regulated cost recovery for unique operating expenses incurred on tribal lands;





# Advocacy cont.

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For all Tribes (CLECs, ISP's)

- Extending the timeline for buildout obligations pertaining to the 2.5 Ghz proceeding;
- Creating more flexible policy for broadband usage in the Affordable Connectivity Program;
- Assisting with policy for tribal libraries and boys and girls programs to partake in the E-Rate program;



# Advocacy cont.

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For all Tribes (CLECs, ISP's)

- Sponsoring webinars
- Staying apprised of FCC rules impacting Indian Country
- Assisting with current ongoing proposed legislation



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# Question & Answers

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**THANK  
YOU**

