ConnectMT & BEAD Implementation

ETIC September 28th

Agenda

1 Overview: Broadband in Montana

2 BEAD Implementation

3 Affordability Plans

4 Digital Opportunity

2 Overview of the current state of broadband in Montana

Montana trails peers on key measures of broadband access and digital equity.	**50th in BroadbandNow's ranking of high-speed internet availability (2023),[1] and 44th in high-speed internet adoption,[2]** Montana is farther behind on key measures of internet availability and adoption.
18% of Montana locations are unserved or underserved and it could cost up to $830M in subsidies to serve them all.[3]	Based on an estimated allocation of BEAD funding, **~72% of unserved and underserved locations will be able to be served if only fiber optic cable is deployed.**
67% of Montanan households have adopted terrestrial broadband.[2]	**Variation in terrestrial broadband adoption exists between larger metropolitan areas and more rural parts of Montana**. However, after layering in cellular and satellite technologies, **internet adoption is 85% statewide.**
79% of eligible Montana households have not enrolled in ACP.[4]	Compared to other US states, **Montana is 41st in ACP enrollment** and uptake based on eligibility and **12% lower than the nationwide average**. **A survey of Montana residents suggests only ~30% of the population knows ACP exists.**
5.8% of Montana households do not have any kind of computing device.[2]	**12.3% of Montana households with internet access only have access through a cellular data plan.** Furthermore**,** 5.8% of Montana households do not have any kind of computing device (e.g., laptop, smartphone, tablet).

1 BroadbandNow; https://broadbandnow.com/Montana
2 U.S. Census Bureau, American Communities Survey (ACS), 2021; https://data.census.gov/cedsci/table?q=internet&g=0400000US30&tid=ACSST1Y2021.S2801
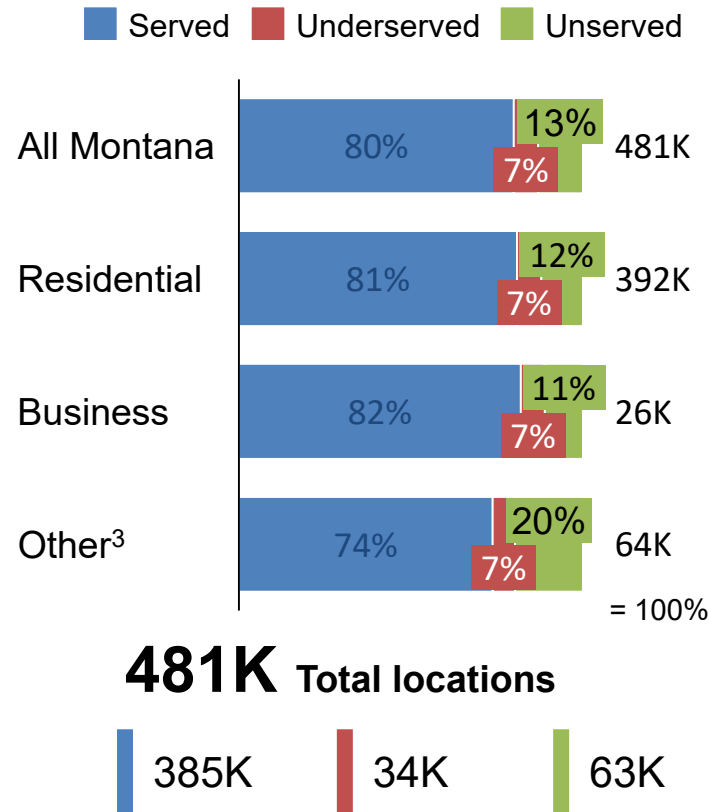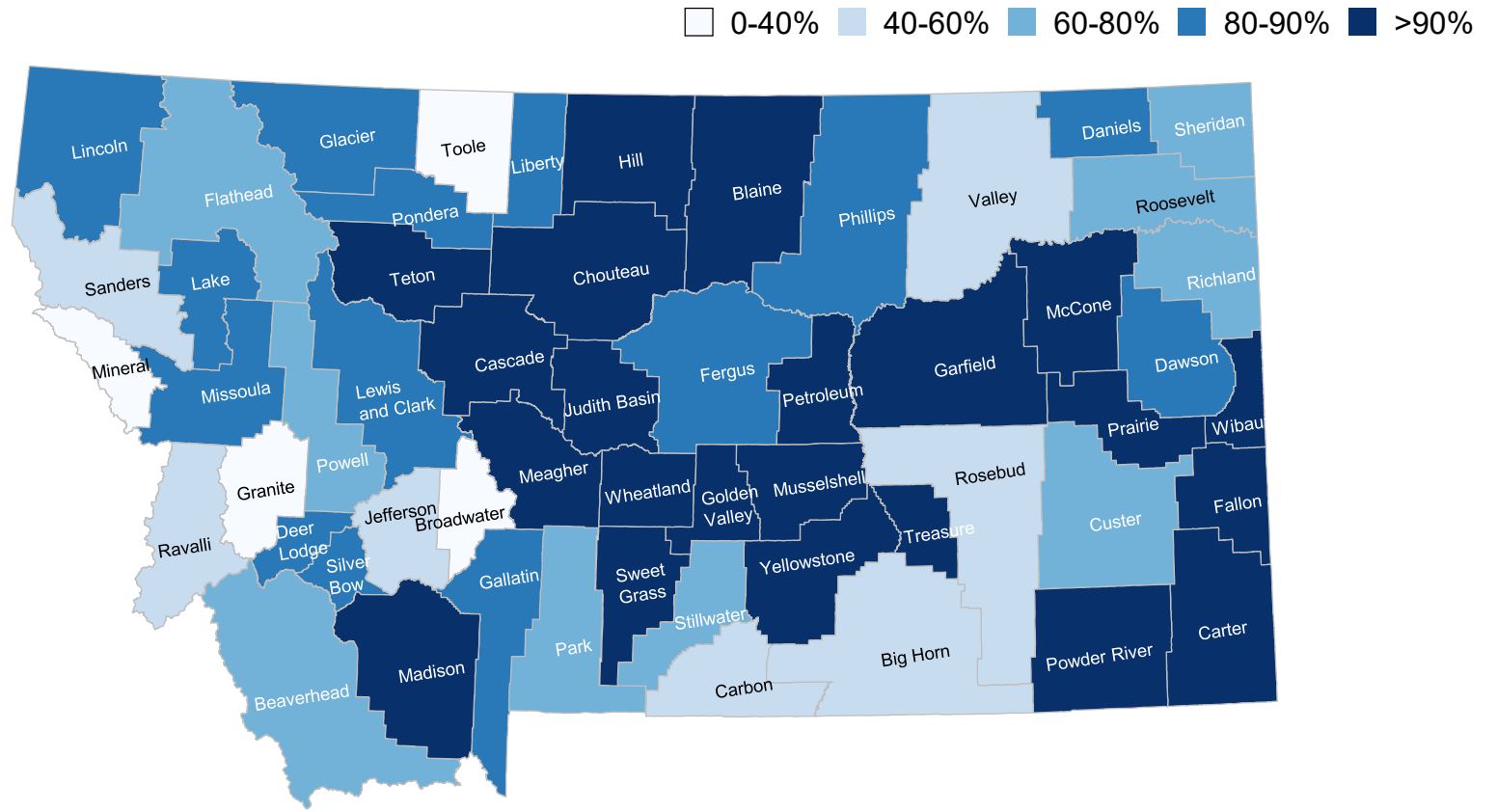3 FCC DATA Maps as of 18 November 2022
4 Education Superhighway. https://www.educationsuperhighway.org/no-home-left-offline/acp-data/#dashboard

According to the FCC Broadband Map, 20% of Montana locations are unserved or underserved[1]

By the numbers: Montana broadband deployment[1]

Legend: ■ Served ■ Underserved ■ Unserved

	Served	Underserved	Unserved	Total
All Montana	80%	7%	13%	481K
Residential	81%	7%	12%	392K
Business	82%	7%	11%	26K
Other[3]	74%	7%	20%	64K

= 100%

481K Total locations

■ 385K ■ 34K ■ 63K

Percentage of served locations in Montana counties

Legend: ☐ 0-40% ☐ 40-60% ☐ 60-80% ■ 80-90% ■ >90%

1. Values for served, underserved, and unserved locations reflect location totals when project areas / locations to be served by RDOF, CAFII, NTIABIP, RUS and Reconnect (up until May 2023) are considered served
2. 'Business' includes the land use designations as estimated by the local county assessor information: BUSINESS, INDUSTRIAL, RECREATION
3. 'Other' includes the land use designations as estimated by local county assessor information: LAND, AGRICULTURE, COMMUNITY, TRANSPORTATION, COMMUNICATION, UNKNOWN, OTHER

Source: Service availability based on FCC Broadband Map as of June 2023

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Overview of potential BEAD deployment scenarios

5

Overview of deployment scenarios

What are they?

Deployment scenarios are potential options that the State of Montana could pursue to deploy BEAD funding taking into account BEAD NOFO requirements, various technologies, estimated cost, and overall priorities.

Why they matter?

Deployment scenarios are important to maximize the impact of federal investment in broadband that accomplishes the following:

1. Achieves the broadband connectivity goals for the state of Montana

2. Meets the requirements of the BEAD program

3. Efficiently utilizes public funds by maximizing private investment

Key considerations

The deployment scenarios laid out in this document are based on available data at the time of analysis.

The deployment scenarios are subject to change based on updated data from the FCC and the Notice of Available Amounts which will determine how much funding is available to the State of Montana.

The deployment scenarios are anticipated to be directionally accurate for the purposes of collecting input on Montana's potential path forward.

Potential deployment scenarios to close the broadband access gap in Montana

Base Scenario

1

Scenario 1

Fiber access to as many unserved as possible

In keeping with the BEAD NOFO, Montana has analyzed the total cost to provide fiber to all Montana residents

Even when considering the total allocations from BEAD and other funding sources (e.g., RDOF, ARPA, etc.), Montana will likely have a shortfall to provide fiber for all

Thus, Montana will explore other scenarios to achieve BEAD program goals

Alternative Scenarios

2

Scenario 2

Broadband access for all unserved (mix of technologies)

3

Scenario 3

Broadband access for all unserved + all underserved (mix of technologies)

Considerations

Achieves BEAD program goals of high-speed internet for all unserved

Maximizes fiber deployment, while optimizing use of other technologies

Provides service to locations where fiber is not economically feasible

Achieves BEAD program goals of high-speed internet for all unserved

Extends federal dollars furthest by employing alternative technologies to maximize benefits for Montanans

Provides universal coverage to all, even where fiber is not feasible

Implications

Underserved will not be upgraded

May be less efficient use of funding than upgrading underserved

Alternative technologies (fixed wireless, satellite) are less scalable and may require maintenance investment in the future

Fewer unserved and underserved locations will receive fiber

Alternative technologies (fixed wireless, satellite) are less scalable and may require maintenance investment in the future

Next steps

In developing the initial proposal Montana will do the following:

Weigh the various considerations and implications associated with the deployment scenario archetypes to best meet the needs of its constituents

Outline the detailed deployment plan and associated grant process

Summary of the potential impact of various deployment scenarios on broadband access in Montana[1]

(5)

Legend: (X) Locations connected with broadband   ■ Fiber   ■ Fixed Wireless   ■ Satellite

Scenario	EHCT, $K	Estimated cost by technology mix, $M[2]	Estimated technology mix for unserved locations	Estimated technology mix for underserved locations	Summary of potential impact[2]
① Scenario 1 Fiber to as many unserved as possible	**N/A**	635 — 635	100.0% (63.1K)	0% (N/A)	**360** locations remain **unserved** **~24K** locations remain **underserved**
② Scenario 2 Broadband for all unserved (mix of technologies)	**$206K**	626 | 8 — 634	99.4% | 0.5% | 0.1% (63.4K)	0% (N/A)	Enables all **~63K unserved** locations to receive **broadband** (~400 receive alternative technologies) **~24K** locations remain **underserved**
③ Scenario 3 Broadband for all unserved + underserved (mix of technologies)	**$151K**	624 | 1 | 10 — 634	98.7% | 1.1% | 0.2% (63.4K)	99.8% | 0.1% | 0% (24.0K)	Enables all **~87K un- & underserved** locations to receive **broadband** **~800 unserved** and **~40 underserved** locations will receive **alternative technologies**

1. Based on estimated greenfield costs; Assumes potential BEAD allocation of $635M. Locations to be served by RDOF, CAFII, NTIABIP, and RUS / Reconnect are considered served for this analysis
2. Satellite cost is estimated at $881 per location

Source: Service availability per FCC DATA Maps as of 18 November 2022; Cost estimates per CostQuest v5 cost model

Agenda

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① IIJA BROADBAND FUNDING STREAMS

BEAD

$42.45B

Broadband Equity, Access & Deployment Program

A program to get all Americans online by funding partnerships between states or territories, communities, and stakeholders to build infrastructure where we need it and increase adoption of high-speed internet.

DIGITAL EQUITY

$2.75B

Digital Equity Act

Three programs that provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable high-speed internet to meet their needs and improve their lives.

TRIBAL

$2.00B

Tribal Connectivity Technical Amendments

A program to help tribal communities expand high-speed internet access and adoption on tribal lands.
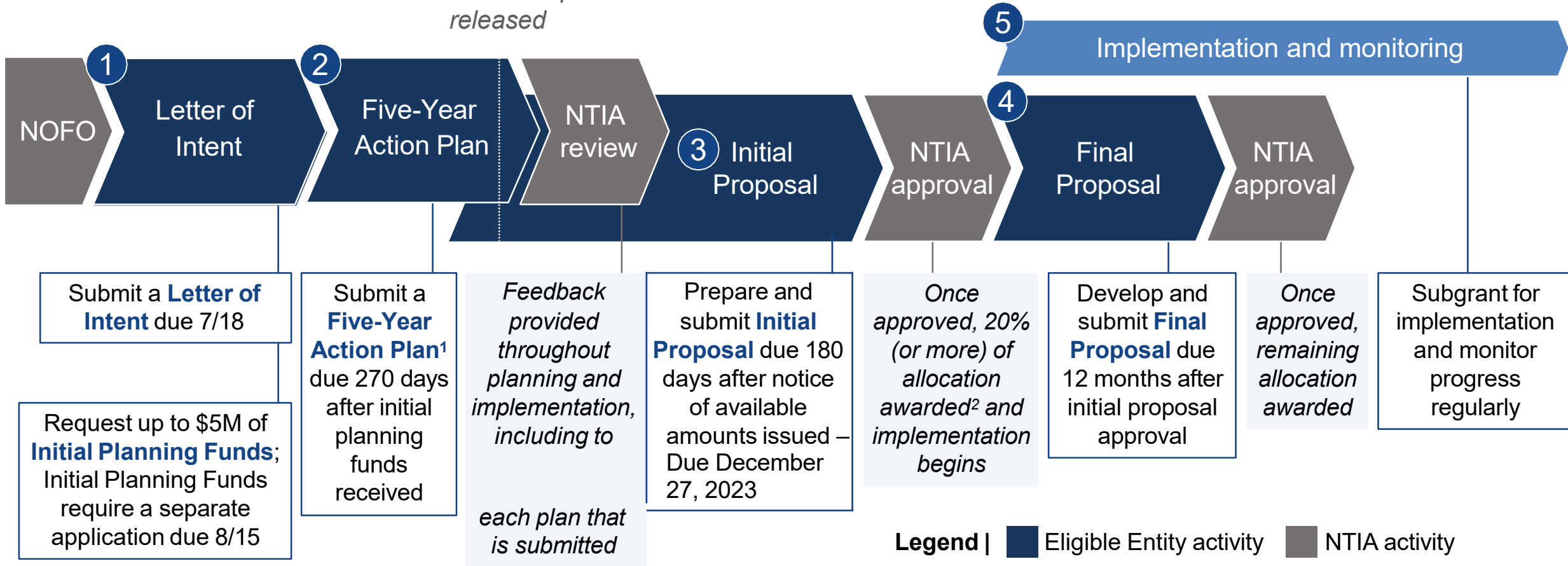
MIDDLE MILE

$1.00B

Enabling Middle Mile Broadband Infrastructure

A program to expand middle mile infrastructure, to reduce the cost of connecting unserved and underserved areas.

BEAD: 5 KEY STEPS

FCC data maps released

5 Implementation and monitoring

NOFO

1 Letter of Intent

2 Five-Year Action Plan

NTIA review

3 Initial Proposal

NTIA approval

4 Final Proposal

NTIA approval

Submit a **Letter of Intent** due 7/18

Request up to $5M of **Initial Planning Funds**; Initial Planning Funds require a separate application due 8/15

Submit a **Five-Year Action Plan**[1] due 270 days after initial planning funds received

Feedback provided throughout planning and implementation, including to

each plan that is submitted

Prepare and submit **Initial Proposal** due 180 days after notice of available amounts issued – Due December 27, 2023

Once approved, 20% (or more) of allocation awarded[2] and implementation begins

Develop and submit **Final Proposal** due 12 months after initial proposal approval

Once approved, remaining allocation awarded

Subgrant for implementation and monitor progress regularly

Legend | ▮ Eligible Entity activity ▮ NTIA activity

1. Required for entities that receive initial planning funds 2. Must be used for projects in areas with >80% unserved locations or high poverty areas
Note: funding amounts inclusive of all administrative set-asides

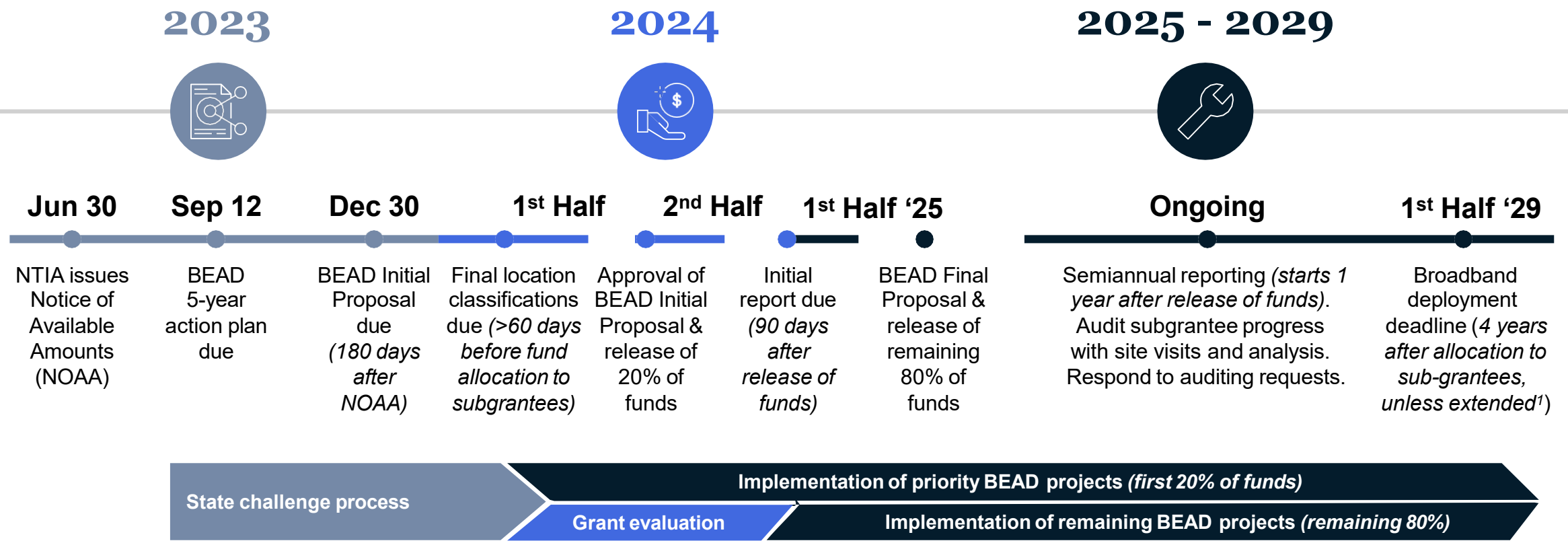# Montana's BEAD allocation

$628.97M

BEAD allocation

On June 26th, NTIA announced the BEAD allocations for all Eligible Entities.

Montana's final BEAD allocation is similar to the originally estimated allocation, which means the planning efforts to date are not significantly impacted or require significant adjustments.

Through development of the Initial Proposal, the Montana Broadband Office (MBO) will update deployment scenarios and potential impact based on the final allocation.
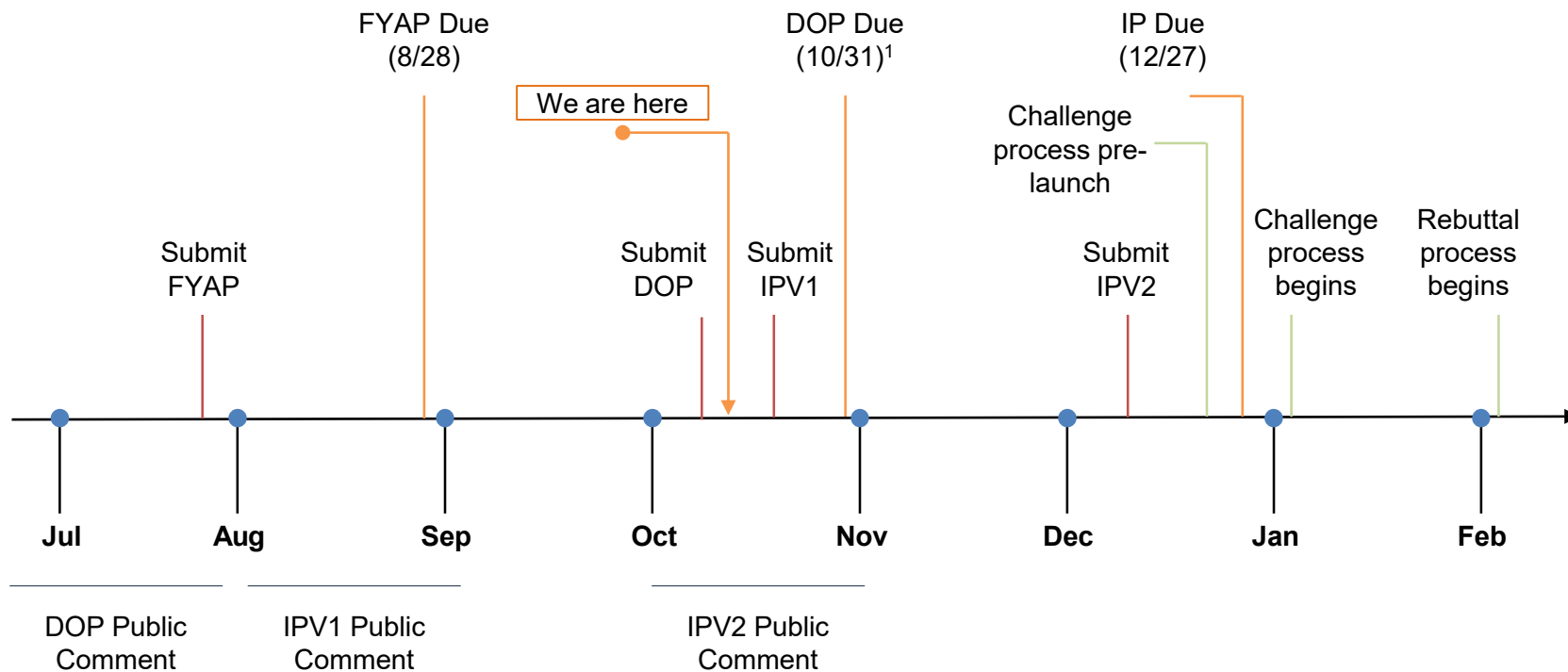
(2) **BEAD program timeline**

2023

2024

2025 - 2029

Jun 30	Sep 12	Dec 30	1st Half	2nd Half	1st Half '25	Ongoing	1st Half '29
NTIA issues Notice of Available Amounts (NOAA)	BEAD 5-year action plan due	BEAD Initial Proposal due *(180 days after NOAA)*	Final location classifications due *(>60 days before fund allocation to subgrantees)*	Approval of BEAD Initial Proposal & release of 20% of funds	Initial report due *(90 days after release of funds)*	BEAD Final Proposal & release of remaining 80% of funds	Semiannual reporting *(starts 1 year after release of funds)*. Audit subgrantee progress with site visits and analysis. Respond to auditing requests.	Broadband deployment deadline *(4 years after allocation to sub-grantees, unless extended[1])*

State challenge process

Grant evaluation

Implementation of priority BEAD projects *(first 20% of funds)*

Implementation of remaining BEAD projects *(remaining 80%)*

1. "An Eligible Entity may extend the four-year network deployment deadline for subgrantees by not more than one year if: (1) the subgrantee has a specific plan for use of the grant funds, with project completion expected by a specific date not more than one year after the four-year deadline; (2) the construction project is underway; or (3) extenuating circumstances require an extension of time to allow the project to be completed." cit. BEAD NOFO pg. 18

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BEAD timeline and draft agendas

As of 27 September 2023

Focus for today

Timeline of key BEAD milestones

FYAP Due (8/28)

We are here

DOP Due (10/31)[1]

IP Due (12/27)

Submit FYAP

Submit DOP

Submit IPV1

Challenge process pre-launch

Submit IPV2

Challenge process begins

Rebuttal process begins

Jul — Aug — Sep — Oct — Nov — Dec — Jan — Feb

DOP Public Comment

IPV1 Public Comment

IPV2 Public Comment

FYAP: BEAD Five-Year Action Plan   **IPV1**: BEAD Initial Proposal Volume 1   **DOP**: Digital Opportunity Plan   **IPV2**: BEAD Initial Proposal Volume 2

Draft Upcoming CAC Agendas

October 11th
IPV2:
- Subgrantee process
- Workforce readiness
- Minority-owned / women-owned enterprises
- Cost and barriers reduction
- Low-cost service option
- Middle class affordability
- 20% funding allocation
- Public comment period

November 7th
IPV2 Approval

December 6th
Path forward for BEAD and Digital Opportunity

1 The MBO has applied for a no-cost extension on the DOP until 24 February 2024, which is pending approval by NTIA

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It may take up to $1.21B in subsidies to reach all un- and underserved locations with fiber

Total subsidy required to serve by county

- No subsidy required
- < $10M
- $10-20M
- $20-30M
- $30-40M
- $40-50 M
- >$50M
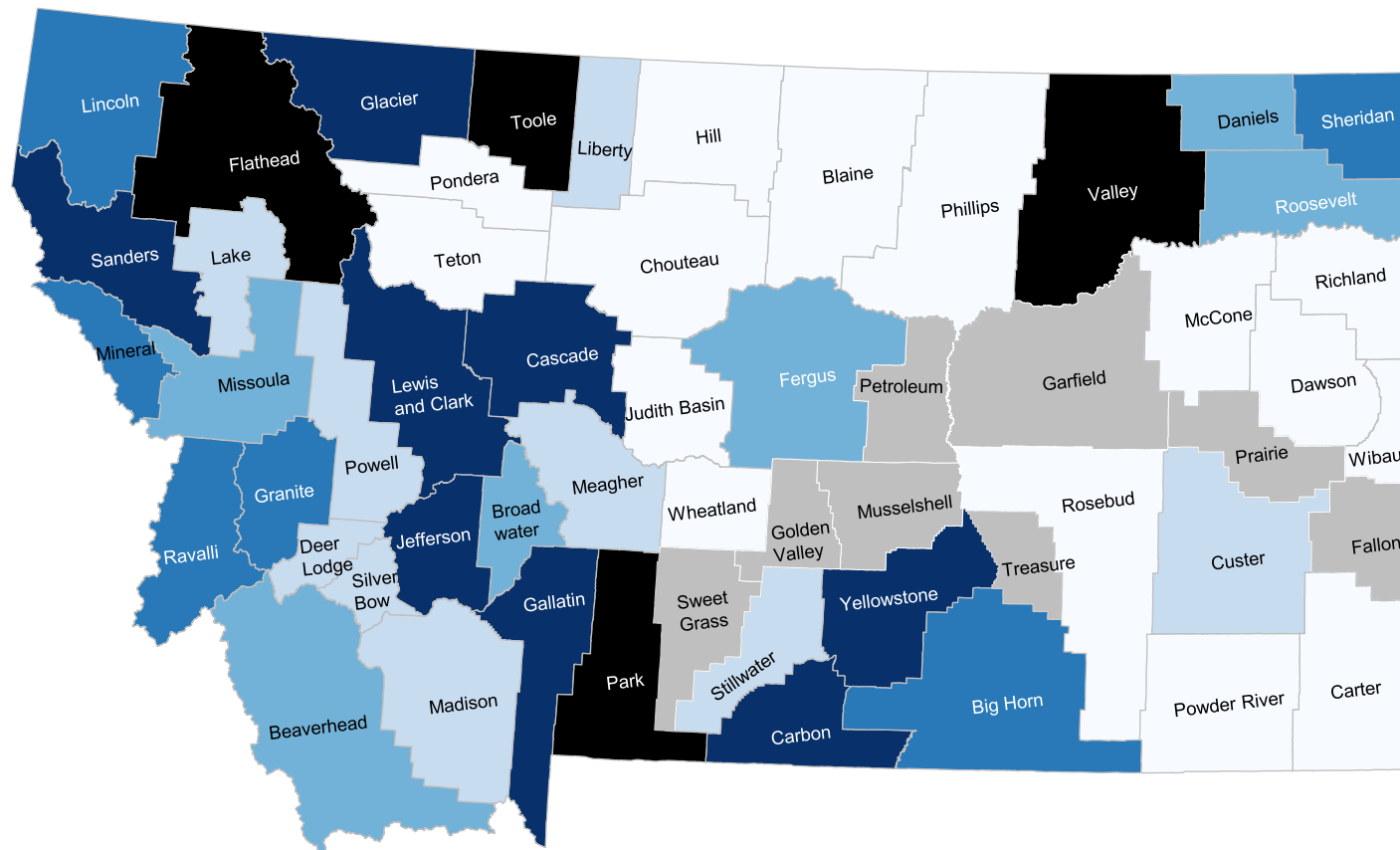
$844M - $1.21B[1]

Total subsidies needed to deploy fiber to all underserved and unserved locations in Montana.

Assumes:

- Aerial deployment
- Other federal awards counted as served (RDOF, RUS, CAF II, NTIABIP, Reconnect up until May 2023)
- A subgrantee match estimate based on the applicant's expected business case
- Range dependent on estimated brownfield or greenfield costs, respectively

1. The high and low ends of this range reflect greenfield and brownfield fiber deployment, respectively, to all un- and underserved locations in Montana.

Source: Service availability based on FCC Broadband Map as of June 2023; Cost estimates based on CostQuest Associates cost model (Jan 2023)

In a 100% greenfield fiber buildout scenario, ~10% of the un- & underserved locations may account for ~72% of total subsidy needed

Estimated Montana fiber subsidy cost curve for unserved and underserved locations[1], $M

Brownfield Fiber Subsidy — Greenfield Fiber Subsidy

BEAD allocation ($629M)

Subsidy for fiber buildout ($M)

Percent of unserved and underserved locations served with fiber
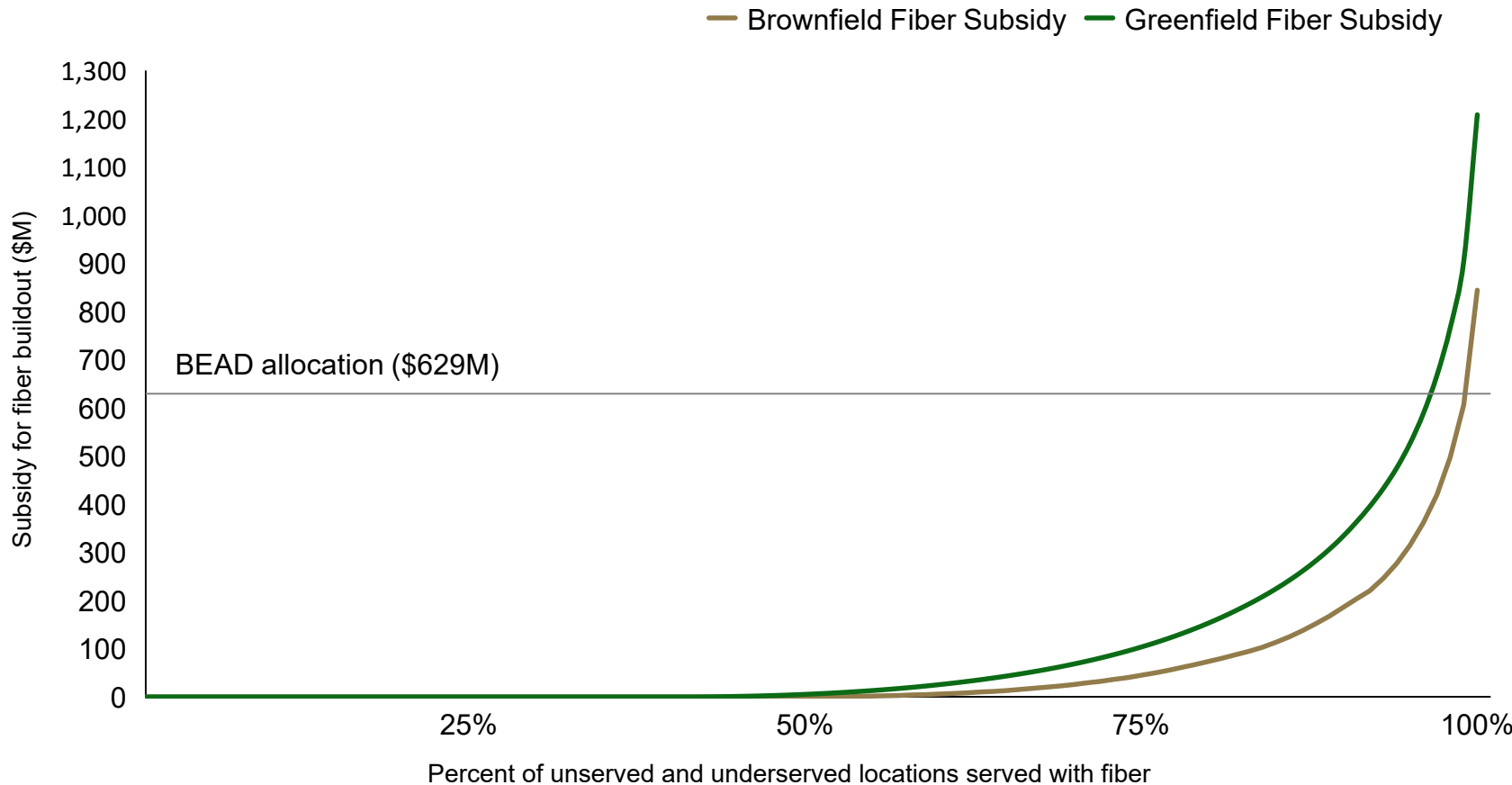
Key Takeaways

A relatively small number of locations are driving a disproportionate amount of the cost

Estimates show that the **last 1%** of locations account for:

- 25% of total cost, with an average subsidy per location of $313K for greenfield deployment

- 28% of total cost, with an average subsidy per location of $248K for brownfield deployment

These locations likely represent some of the most remote locations in Montana and may have additional barriers to deployment (e.g., topography)

1. Estimates for fiber subsidy required assumes that locations connected by RDOF, RUS, CAF II, NTIABIP, and Reconnect (up to May 2023) are considered served. Subsidy required by location represents the NPV investment required for the location, estimated future cash flows and estimated ISP investment for each location

Source: Service availability based on FCC Broadband Map as of June 2023; Cost estimates based on CostQuest Associates cost model (Jan 2023)

BEAD subgrantee process requirements (1 of 3)

Key differences from ARPA

● None ● Very limited ● Limited

Element of process	Description of requirement	Flexibility
Allocation requirements and process design	Prioritize based on Unserved, Underserved, and CAIs in accordance with eligible uses of BEAD funding while ensuring that 100% of unserved locations will be reached	● (None)
	Deploy to CAIs rather than choosing non-deployment uses of funds	● (Very limited)
	Prioritize projects in high poverty areas if funding is limited	● (Very limited)
	Design safeguards that ensure a fair process	● (Very limited)
	Prioritize high-poverty areas in case of a funding shortfall	● (Very limited)
	Ensure no classes of applicants (e.g., local governments, public-private partnerships) are excluded	● (Very limited)
	Make funding available for projects that meet the definitions of "unserved service projects" and "underserved service projects" under federal law, and prioritize Unserved Service Projects to ensure coverage of all unserved locations	● (Limited)
	Either prescribe project areas or incorporate deconflicting step	● (Limited)
	Include middle-mile if preferred	● (Limited)
	Deploy to multi-family buildings, prioritizing unserved and low-income households where applicable	● (Limited)
	Choose any competitive process	● (Limited)
	Invite broad participation in the development of the subgrantee process from women- and minority-owned firms	● (Limited)
	Conduct outreach to potential applicants regarding locations for which no applications were received, only after the application deadline has passed	● (Limited)

BEAD subgrantee process requirements (2 of 3)

Key differences from ARPA

● None ● Very limited ● Limited

Element of process	Description of requirement	Flexibility
Application requirements	Require information about any other public funding requested	●
	Require ownership information	●
	Require managerial and financial competence as well as technical and operational capacity in subgrantees	●
	Require financial qualifications such as audited financial statements	●
	Require managerial competence including exhibits such as resumes and org charts	●
	Require technical capability such as project timeline and network design	●
	Require certification of operational capability such as operating or financial reports	●
Scoring requirements	Ensure that where only one project has been proposed and meets requirements, that is the default winner	●
	Ensure that fiber projects exceeding the Extremely High Cost Per Location Threshold may but do not have to be preferred where projects using other technologies have been proposed	●
	Ensure that where two or more projects have been proposed, once priority has been given to fiber projects, the state gives >75% of total benefits (e.g., weight, points) to: - minimal BEAD funding, by incentivizing a match of >25% from subgrantees - broadband affordability - fair labor practices	●
	Consider speed to deployment as a secondary criterion for fiber projects and additionally consider network speed for non-fiber projects	●
	Consider other secondary criteria for fiber and non-fiber projects, e.g., equitable workforce, open access, tribal coordination considerations, including additional secondary criteria developed by the state	●
	Consider workforce development goals	●

Source: BEAD NOFO
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BEAD subgrantee process requirements (3 of 3)

Key differences from ARPA

● None ● Very limited ● Limited

Element of process	Description of requirement	Flexibility
Compliance requirements	Require Buy America compliance	● (None)
	Require network capabilities, speed and latency to meet set standards	● (None)
	Require interspersed conduit access points for interconnection by other entities	● (None)
	Require consumer protections e.g., no caps on data usage, reasonable and non-discriminatory terms	● (None)
	Require Middle-Mile subgrantees to allow just, reasonable and nondiscriminatory interconnection for other providers	● (None)
	Require the subgrantee, if no longer able to provide service, to sell to another provider that will meet BEAD commitments	● (None)
	Require compliance with non-discrimination laws	● (None)
	Require public awareness campaigns meeting specific requirements	● (Very limited)
	Require a cyber risk management plan	● (Very limited)
	Require a supply chain risk management plan	● (Very limited)
	Require compliance with provisions such as non-discrimination in construction contracts, including non-discrimination on religious grounds	● (Very limited)
	Require compliance with labor laws	● (Very limited)
	Ensure small, women- and minority-owned businesses are used where possible	● (Very limited)
	Require biannual submission of reports to be provided to NTIA on request	● (Very limited)
	Require subgrantee agreements to make deployment feasible	● (Very limited)
	Require network outage levels to meet set standards	● (Limited)

Source: BEAD NOFO
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The Initial Proposal includes 20 requirements

IP guidance element	Details follow

Initial Proposal Volume 1 (Challenge Process)	BEAD NOFO Requirement
1.1 Federal funding	3
1.2 Eligible broadband serviceable locations	5
1.3 Community anchor institutions	6
1.4 Challenge process	7

Public Comment Period	Date
1.5 Volume I	Complete
2.17 Volume II	9/28-10/28

Initial Proposal Volume 2 (Grant Program)	BEAD NOFO Requirement
2.1 Objectives	1
2.2 Existing efforts	2
2.3 Stakeholder engagement	4
2.4 Deployment subgrantee process	8
2.5 Non-deployment subgrantee process	9
2.6 Direct implementation	10
2.7 Labor standards	11
2.8 Workforce readiness	12
2.9 Minority- and women-owned enterprises	13
2.10 Cost and barriers reduction	14
2.11 Climate Assessment	15
2.12 Low-cost service option	16
2.13 Middle class affordability	20
2.14 20% funding allocation	17
2.15 Existing laws and requirements	18
2.16 Certification	19

Source: BEAD Initial Proposal Guidelines

2.4: Project area design principles and preliminary approach

MBO's Project Area guiding principles

Achieve BEAD goal of reaching all unserved and underserved

The MBO seeks to design an approach to project areas that will increase probability of achieving the BEAD and State goal to serve all un- and underserved

Ensure objectivity during subgrantee process

The MBO seeks to design an approach to project areas that will:

- Promote a fair & competitive bidding process
- Ensure impartiality to providers
- Support an objective selection of awardees

Minimize deconfliction given the compressed timeline

The MBO seeks to design an approach to project areas that will enable like to like comparison of overlapping project areas and facilitate a straightforward deconfliction process

Planned approach

To achieve these core principles, the MBO plans **to allow providers to define project areas** using existing geographic units

Geographic units

The MBO plans to designate CBGs as the geographic units of project areas

As pertinent and logical, the State may break some of the CBGs up into one or more smaller areas in a way that accounts for the distribution of un- and underserved BSLs

Project area design

Providers would use CBGs to build their desired project areas

Subgrantee process design complications

Issue	Considerations
All unserved locations must be served	- Funding must be awarded "in a manner that ensures the deployment of service to all unserved locations."[1] - At least 80% of BSLs served by a project must be un- or underserved.
Priority projects must use fiber	- Priority Broadband Projects are defined as projects that utilize fiber and should be funded first. - BEAD guidance distinguishes between priority (fiber) and non-priority (alternative technology) projects (e.g., different scoring and prioritization rules), and it is unclear if or how hybrid-technology projects could be used.
Montana may have a BEAD funding shortfall	- Current estimates indicate that it would take $1B+ to deploy fiber to all unserved locations, and $1.2B+ to deploy fiber to all un- and underserved locations.[3] Given the state's allocation of ~$629M[2], there may be a significant funding shortfall. - The subgrantee process will require careful budgeting to stretch the funding as far as possible.
BEAD outlay must be minimized	- Minimal BEAD program outlay is a priority criteria in the subgrantee selection process. However, many locations may fall in high-cost areas, which will require significant investment to serve.
Satellite is costly and not preferred under BEAD guidelines	- Satellite is only permitted when reliable technologies are not financially feasible. - The monthly fees for satellite service are costly to the customer, and they may be unaffordable for some households without a subsidy.

1. Source: BEAD Initial Proposal Guidance, and BEAD NOFO, page 41
2. NTIA Internet for All
3. CostQuest Associates cost model (Jan 2023)

BEAD Initial Proposal Volume 2 key components and questions

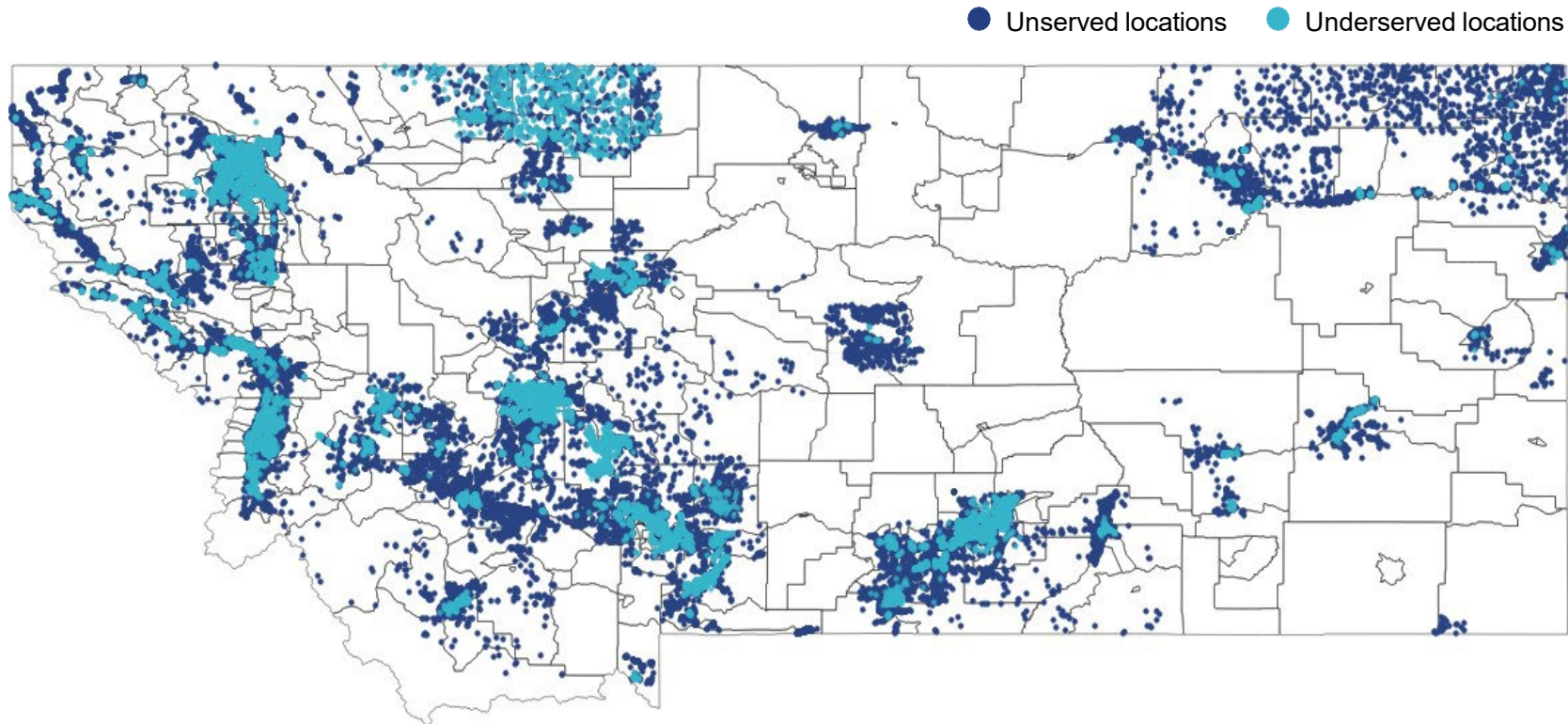| Element		Question
Prequalification	1	Should MBO prequalify a subset of providers before the launch of the subgrantee process?
Extremely High Cost Per Location Threshold (EHCPLT)	2	When in the subgrantee process should MBO determine its preliminary and finalized EHCPLT?
	3	Should MBO notify providers of its EHCPLT during the subgrantee process?
Project area design	4	What will be the foundational unit (e.g., CBG, county, MSA, etc.) that providers will bid on?
	5	How much freedom will providers have to construct a project area?
	6	How should the BEAD funding be allocated to different parts of the state?
Bidding	7	Will providers be able to submit multiple bids for the same foundational unit (i.e., in a project area permutation)?
Scoring	8	What should be the criteria on MBO's subgrantee scorecard? How should MBO represent guidance from SB531 in the scoring criteria?
	9	What weight should be assigned to each criteria?
	10	How can providers earn the maximum amount of points for a given criteria?
Application review	11	How will the applications be reviewed?
	12	How should MBO deconflict bids with overlapping project areas?
Affordability	13	How will the MBO design its low-cost plan?
	14	How will the MBO address middle-class affordability?
Potential challenges	15	How can the MBO address potential challenges posed by the IPV2 guidance?

Un- and underserved locations in Montana Census Block Groups (CBGs)

4

As of 24 August 2023

Map of Montana's unserved and underserved BSLs across CBGs

● Unserved locations   ● Underserved locations

Montana has **96,662** un- and underserved locations in **532** CBGs

Source: FCC BDC. National Broadband Map

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❼ Subgrantee selection criteria for priority¹ projects

Collectively worth at least 75%   Collectively worth no more than 25%

Primary criteria (required)

Minimal BEAD program outlay

- Total BEAD funding to complete the project, including projected cost and proposed match (no less than 25% of the project cost, absent a waiver)

- Points awarded must increase as BEAD outlay decreases

- Consider cost per location while accounting for network design factors that could make a project more expensive, but also more scalable or resilient

Affordability

- Commitment to provide the most affordable total price to the customer for **1/1 Gbps**

Fair labor practices

- Demonstrated record of and plan to comply with federal labor and employment laws, or specific, forward-looking commitments to strong labor and employment standards for new entrants

Secondary criterion (required)

Speed to deployment

- Subgrantees must deploy the planned broadband network and begin providing services to each customer that desires broadband services within the project area within 4 years after receiving the subgrant

Additional prioritization factors (optional)

Equitable workforce development and job quality

- Consider the subgrantee's enforceable commitments with respect to advancing equitable workforce development and job quality objectives

Open access

- Promote subgrantees' provision of open access wholesale last-mile broadband service for the life of the subsidized networks, on fair, equal, and neutral terms to all potential retail providers.

Local and tribal coordination

- Reflect subgrantees; support from the local and/or Tribal Government with oversight over the served location(s)

Additional criteria that align with the Eligible Entity and local priorities may be developed

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1. The term "Priority Broadand Project" means a project that will provision service via end-to-end fiber-optic facilities to each end user premises. BEAD NOFO, p. 14.; Source: BEAD Initial Proposal Guidance

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❼ Subgrantee selection criteria for non-priority projects

■ Collectively worth at least 75%　　■ Collectively worth no more than 25%

Primary criteria (required)

Minimal BEAD program outlay

- Total BEAD funding to complete the project, including projected cost and proposed match (no less than 25% of the project cost, absent a waiver)

- Points awarded must increase as BEAD outlay decreases

- Consider cost per location while accounting for network design factors that could make a project more expensive, but also more scalable or resilient

Affordability

- Commitment to provide the most affordable total price to the customer for **100/20 Mbps**

Fair labor practices

- Demonstrated record of and plan to comply with federal labor and employment laws, or specific, forward-looking commitments to strong labor and employment standards for new entrants

Secondary criteria (required)

Speed to deployment

- Subgrantees must deploy the planned broadband network and begin providing services to each customer that desires broadband services within the project area within 4 years after receiving the subgrant

Speed of network and other technical capabilities

- Weigh the speeds, latency, and other technical capabilities of the proposed technologies

- Additional weight should be awarded to subgrantees that propose the use of technologies that are easier to scale, require lower future investment, and whose capital assets have longer useful lives

Additional prioritization factors (optional)

Equitable workforce development and job quality

- Consider the subgrantee's enforceable commitments with respect to advancing equitable workforce development and job quality objectives

Open access

- Promote subgrantees' provision of open access wholesale last-mile broadband service for the life of the subsidized networks, on fair, equal, and neutral terms to all potential retail providers.

Local and tribal coordination

- Reflect subgrantees; support from the local and/or Tribal Government with oversight over the served location(s)

Additional criteria that align with the Eligible Entity and local priorities may be developed

Source: BEAD Initial Proposal Guidance
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❼ Deployment subgrantee selection: SB531 guidance[1]

█ Details follow

SB531 Section	Language	Representation in scoring criteria
Section 6 (4) (a)	Whether the proposed project area serves unserved or underserved areas, with unserved areas receiving greater weight	Additional prioritization factor
Section 6 (4) (b)	The number of households, businesses, farms, ranches, and community anchor institutions served	Additional prioritization factor
Section 6 (4) (c)	Whether the proposed project qualifies as an extremely high cost per location threshold as defined by the department and approved by the national telecommunications and information administration or is a high-cost area as defined by the NTIA	Reflected in Section 6 (5)
Section 6 (4) (d)	The length of time the provider has been providing broadband service in the state	Additional prioritization factor
Section 6 (4) (e)	The extent to which government funding support is necessary to deploy broadband service infrastructure in the proposed project area	Primary criterion
Section 6 (4) (f)	The service speed thresholds proposed in the proposal and the scalability of the broadband service proposed to be deployed with higher speed thresholds receiving greater weight	Secondary criterion for non-priority projects
Section 6 (4) (g)	The provider's ability to leverage its own nearby or adjacent broadband service infrastructure to facilitate the cost-effective deployment of broadband service infrastructure in the proposed project area	Reflected in Section 6 (4) (j)
Section 6 (4) (h)	The estimated time in which the provider proposes to complete the proposed project	Secondary criterion
Section 6 (4) (i)	Any other factors the department, as recommended by the commission, determines to be reasonable and appropriate, consistent with the IIJA, Public Law 3 117-58, and the NTIA	CAC has not directed that any additional factors be included
Section 6 (4) (j)	Broadband service providers who have broadband service infrastructure already deployed in the project area	Additional prioritization factor
Section 6 (5)	High-cost areas must be considered for services to the extent terrestrial service is economically viable	Additional prioritization factor
Section 6 (6)	The department shall set a reasonable timeframe to complete projects selected for funding approval. The department may, in consultation with the provider, set reasonable milestones regarding this completion. The department shall create procedures including penalties associated with any failure to comply with the provisions of the awarded contract without reasonable cause	Secondary criterion

Agenda

1   Overview: Broadband in Montana

2   BEAD Implementation

3   Affordability Plans

4   Digital Opportunity

⑫ Low-cost plan details and purpose

Issue	IP Guidance
Low-cost plan purpose	• The purpose is to "**ensure that all residents** … will **have access** to affordable broadband service options."
NTIA example low-cost plan	• "The Eligible Entity is **strongly encouraged to adopt the example** low-cost broadband service option."
ACP participation	• "Eligible Entities must ensure that services offered over BEAD Funded Networks allow subscribers in the service area to use the **FCC's ACP**." • States are required to "certify that all subgrantees will be required to participate in the ACP or any successor programs," and indicates a preference—but not a requirement—for low-cost plans that allow the application of the ACP subsidy.

13 Low-cost plan elements and example

Element	Definition	NOFO guidance example
Cost	• All recurring and non-recurring charges	• $30/month for those who do not reside on Tribal Lands • $75/month for those who do reside on Tribal Lands

Basic service characteristics	• Download and upload speeds
	• Latency
	• Any limits on usage or availability, such as data caps
	• Any material network management practices, and reliability
		• Provides the greater of:
		  – 100/20 Mbps, or the fastest speeds the infrastructure is capable of if <100/20 Mbps, **or**
		  – The performance benchmark for fixed terrestrial broadband service established by the Federal Communications Commission pursuant to Section 706(b) of the Communications Act of 1934, as amended
		• Provides typical latency measurements of no more than 100 milliseconds
		• Is not subject to data caps, surcharges, or usage-based throttling; and is subject to the same acceptable use policies offered to the subgrantee's other home subscribers

Affordable connectivity benefits application	• Description of whether a subscriber can use the Affordable Connectivity Benefit subsidy toward the plan's rate	• ACP subsidy can be provided to the service price • Subgrantees are required to participate in the ACP or any successor program, and eligible subscribers can apply the subsidy to the proposed service option
Available technical upgrades	• Description of whether there are any provisions regarding the subscriber's ability to upgrade to any new low-cost service plans offering more advantageous technical specifications	• If the provider later offers a low-cost plan with higher speeds, existing low-cost subscribers must be permitted to upgrade to the new low-cost plan at no cost

Source: BEAD Initial Proposal Guidance

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14 Middle class affordability plans

Initial Proposal and BEAD NOFO instructions

- Describe a middle-class affordability plan that details **how high-quality broadband services will be made available to all middle-class families** in the BEAD-funded network's service area **at reasonable prices**
- The NOFO notes that **some states might assign especially high weights to selection criteria** relating to affordability and/or open access in selecting BEAD subgrantees
- Eligible Entities will be required to ensure that services offered over Funded Networks allow subscribers in the service area to **utilize the ACP**

Example plan elements

- Require providers to offer low-cost, high-speed plans to all middle-class households
- Providing consumer subsidies if surplus funds are available
- Using regulatory authority to promote structural competition (e.g., eliminating barriers to entry, opening access to multi-dwelling units, or promoting alternative technologies)
- Promoting consumer pricing benchmarks and / or establishing a system of continued monitoring and public reporting to allow customers to determine whether rates are reasonable

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Cost of an internet plan based on 2% of average household income by county

⑬

Cost of an internet plan based on 2% of average household income by county[1]

Legend: $60 - $80 | $80 - $100 | $100 - $120 | $120 - $140 | $140 - $160 | $160 - $180
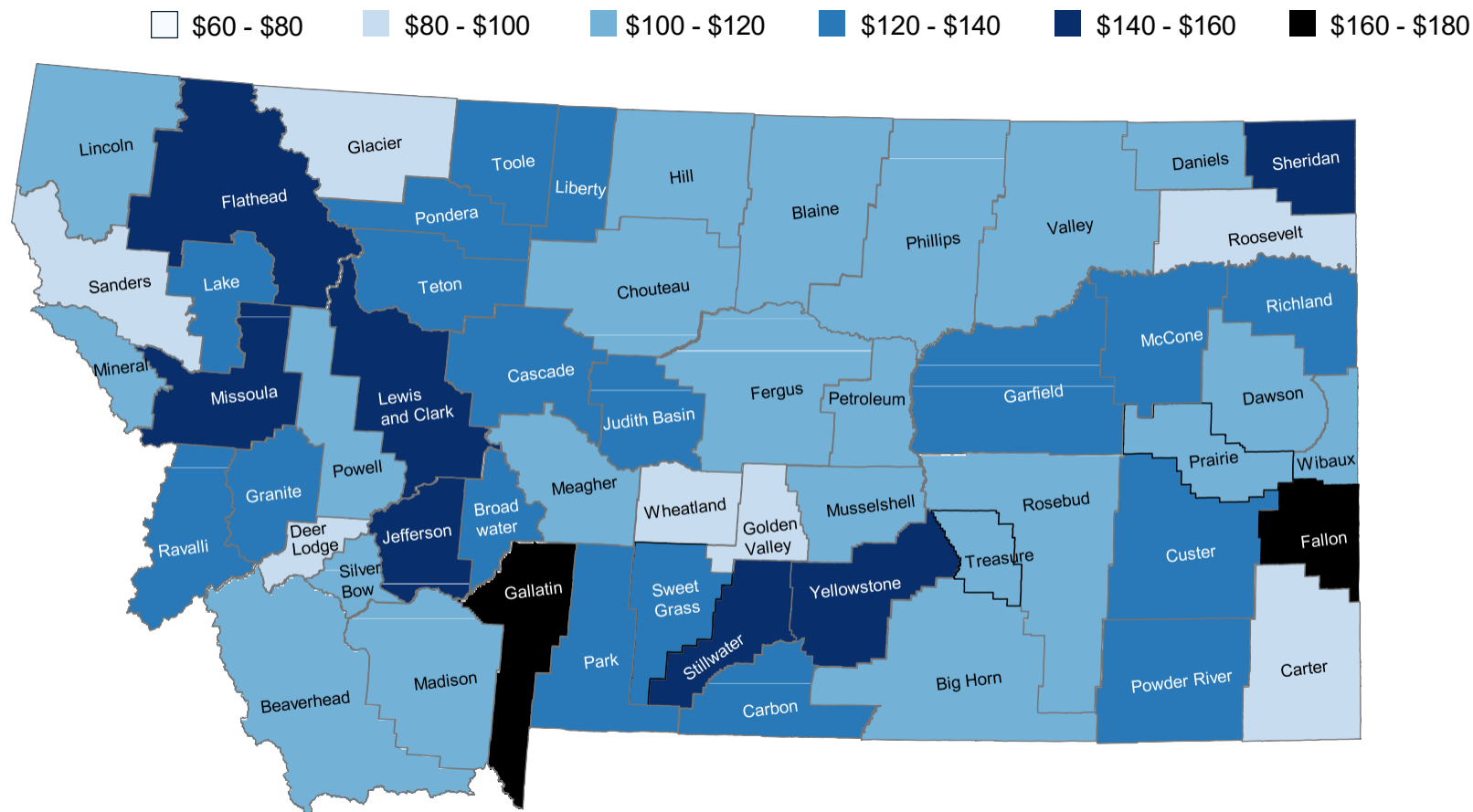
Key takeaways

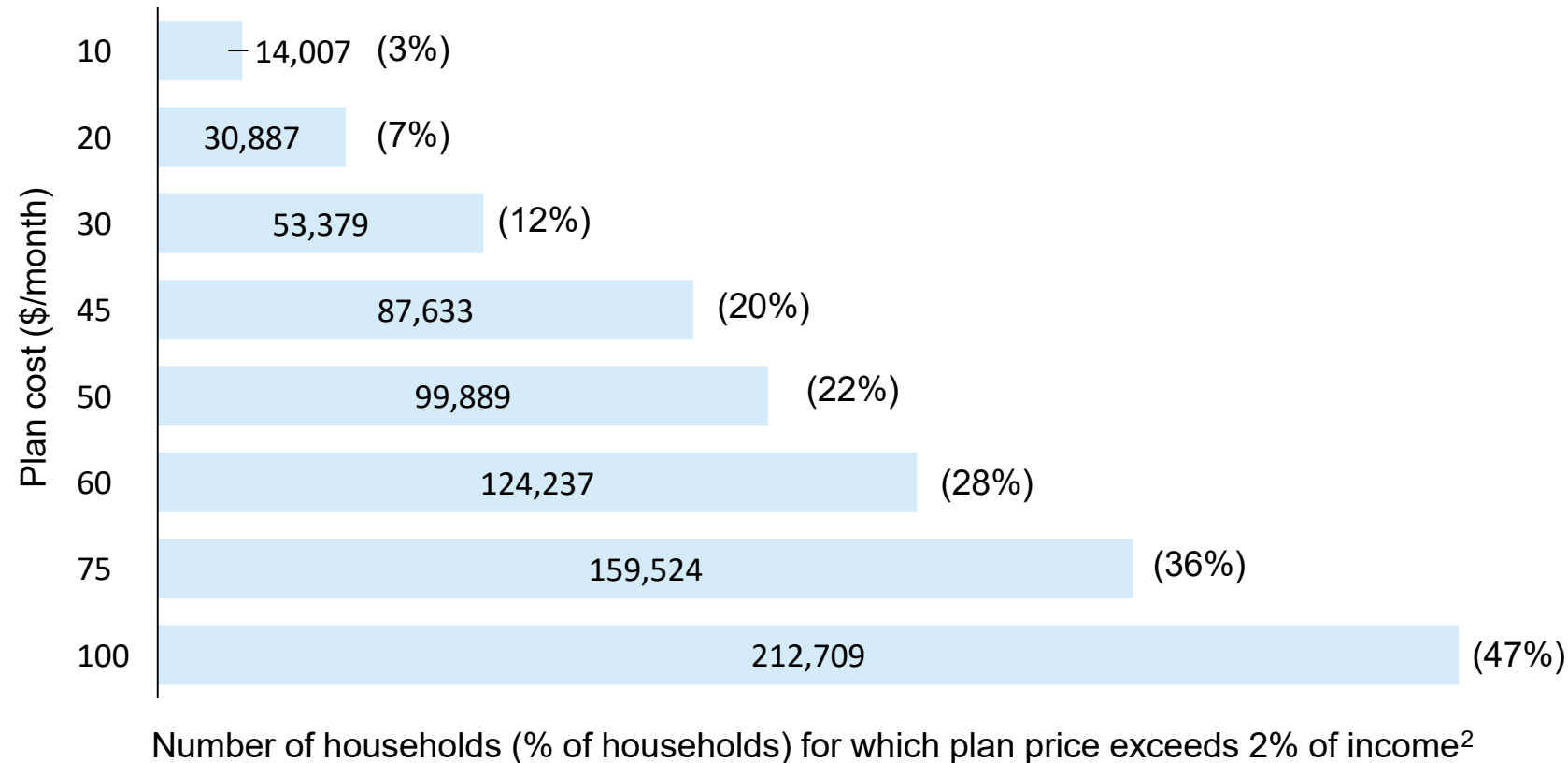2% of average household income by county is > **$100/month** for **50 out of Montana's 56 counties**

The **average cost of an internet** plan that represents 2% of average household income by county is **$121/month**

1. According to the Broadband Commission for Sustainable Development, internet that costs more than 2% of monthly income may be unaffordable for some
Source: American Community Survey, U.S. Census, https://data.census.gov/table?g=040XX00US30$0500000&tid=ACSST5Y2021.S1901

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2.12: Households in MT that may have to pay >2% of income on broadband at various price points

Households that may have to pay >2% of income on broadband for various plan prices[1]

Plan cost ($/month):

Plan cost ($/month)	Number of households	%
10	14,007	(3%)
20	30,887	(7%)
30	53,379	(12%)
45	87,633	(20%)
50	99,889	(22%)
60	124,237	(28%)
75	159,524	(36%)
100	212,709	(47%)

Number of households (% of households) for which plan price exceeds 2% of income[2]

According to the Broadband Commission for Sustainable Development, internet that costs more than 2% of monthly income may be unaffordable for some

Based on the MBO's analysis, broadband would represent >2% of income for:

- 3% of households at $10/month
- ~20% of households at $45/month
- ~36% of households at $75/month
- ~47% of households at $100/month

1. According to the Broadband Commission for Sustainable Development, internet that costs more than 2% of monthly income may be unaffordable for some.
2. Analysis assumes straight-line income distribution between intervals $0-$10k, $10k-$15k, $15k-$25k, $25k-$35k, $35k-$50k, $50k-$75k, $75k-$100k, $100k-$150k, $150k-$200k, and $200k and up.
3. Broadband targets 2025. (2022, March 2). Broadband Commission for Sustainable Development. https://www.broadbandcommission.org/broadband-targets/

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① IIJA BROADBAND FUNDING STREAMS

BEAD

$42.45B

Broadband Equity, Access & Deployment Program

A program to get all Americans online by funding partnerships between states or territories, communities, and stakeholders to build infrastructure where we need it and increase adoption of high-speed internet.

DIGITAL EQUITY

$2.75B

Digital Equity Act

Three programs that provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable high-speed internet to meet their needs and improve their lives.

TRIBAL

$2.00B

Tribal Connectivity Technical Amendments

A program to help tribal communities expand high-speed internet access and adoption on tribal lands.

MIDDLE MILE

$1.00B

Enabling Middle Mile Broadband Infrastructure

A program to expand middle mile infrastructure, to reduce the cost of connecting unserved and underserved areas.

4 Digital Opportunity Program overview

Summary: Three programs that provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable high-speed internet to meet their needs and improve their lives.

Funding Overview

Program	National	MT Allocation
State Planning	$60M	$600K
State Capacity Grant (formula)	$1.44B	TBD
Competitive program	$1.25B	N/A[1]

Key Considerations

- Current planning efforts will inform the State Capacity Grant Application (Formula funding)
- Program will cover a period of 5 years
- Funding will be provided on an annual basis
- Detailed information on the application for funds has not yet been released

1. The Digital Equity Act Competitive Grant Program will be run by the NTIA and will select sub-recipients directly through a competitive process.

4 Potential digital opportunity program goals

Vision statement: To narrow the digital divide in support of Montana's economic, workforce, health, and educational goals by ensuring reliable, affordable internet access for all Montanans

Area	Program goals
Broadband Availability & Affordability	Ensure all Montana residents have access to affordable internet and necessary devices in their homes, schools, libraries, and businesses irrespective of their income level
Online Accessibility & Inclusivity	Reduce the digital divide among all Montana residents by increasing broadband adoption by covered populations and increasing access to online resources for all residents
Digital Literacy	Build digital skills to enhance broadband use through programs and partnerships with community stakeholders
Device Availability & Affordability	Reduce the digital divide among Montana residents by ensuring widespread access to internet-capable devices Reduce the digital divide among state agencies by ensuring adequate internet-capable device inventory
Online Privacy and Cyber-security	Ensure all Montana residents have access to internet that meets online privacy and cybersecurity standards

1. Sensitive information defined in "Fact Sheet: The FCC Adopts Order to Give Broadband Consumers Increased Choice Over Their Personal Information,"

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④ Potential avenues to improve digital opportunity

	BEAD requirements
	Potential focus areas

Existing efforts

Access

		Existing efforts
A	**Connect the unserved:** Last-mile and associated middle-mile deployment of broadband technologies to areas without service of at least 25/3	✓
B	**Upgrade the underserved:** Deploying and/or upgrading technologies to areas with service below 100/20	✓
C	**Invest in community anchor institutions:** Ensure reliable high-speed access at CAIs or identify opportunities in non-traditional CAIs	✓

Affordable subscriptions

D	**Increase ACP uptake:** Educate, support & encourage uptake among eligible subscribers	
E	**Subscription subsidies:** Provide additional subsidies to further reduce broadband cost	
F	**Offer low-cost plans:** Partner with ISPs to develop and promote low-cost high-speed internet plans	✓

Devices access

G	**CAI loan programs:** Allow Montanans to rent devices for free or low-cost from CAIs	✓
H	**CAI access points:** Create device access terminals in CAIs, taking advantage of the high-speed broadband and existing community access	✓
I	**Device subsidies:** Provide direct subsidies to purchase internet-capable devices	
J	**Through strategic partnerships:** Working with businesses or community organizations, share device funding and distribution responsibilities, negotiate bulk rates with device manufacturers	

Digital literacy

K	**Develop digital skills curricula:** Deploy training programs through state entities and targeted industries	✓
L	**Fund targeted training programs:** Upskill individuals through classes and training programs, with potential focus on Covered Populatoins (e.g., aging individuals, individuals in rural areas, veterans)	
M	**Stand-up digital navigator programs:** Deploy navigators in communities to develop specific understanding of barriers in community, and coordinate resourcing as needed	

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Montana Broadband Office (MBO) Points of Contact / Key Dates

Website: Home (mt.gov)

General Inquires: ConnectMT@mt.gov

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Other POCs	
Don Harris	DOA, Chief Legal
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Kristen Reynolds	DOA, Chief Financial Officer
Megan Grotzke	DOA, Communications Director
Heather Mills	Engineering / Compliance Support
Mitch Hergett	Engineering / Compliance Support
Anthony Curcio	Outreach / Grants Support
Samual Seong	Outreach / Grants Support

Key Dates

Commission Meetings:

- September 6th, 10am – 3pm

- October 11th, 10am – 1pm

- November 7th, 10am – 1pm

- December 7th, 10am – 1pm

Deadlines:

- IPV1 Public Comment Due: September 2nd

- IPV2 Due to NTIA: December 27th

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