INVESTING IN MAINE'S BROADBAND & TECHNOLOGY INFRASTRUCTURE

Opportunities for Local Communities

Thursday,
February 1, 2024

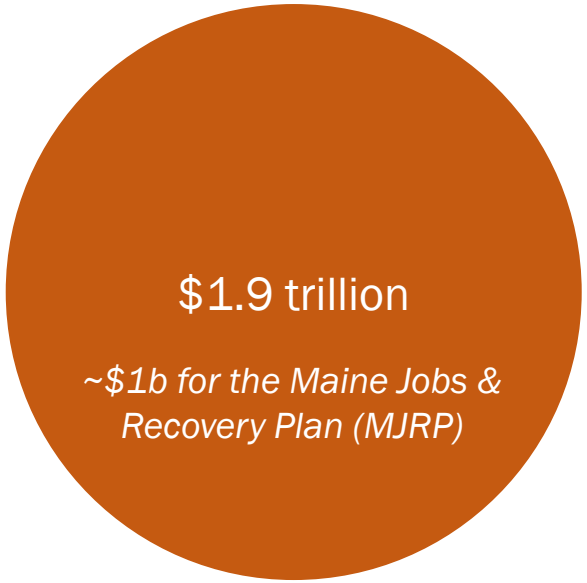
Co-hosted by:

Maine Municipal Association

Maine Governor's Office of Policy Innovation and the Future

RECENT MAJOR FEDERAL INFRASTRUCTURE FUNDING LAWS

2021: American Rescue Plan Act (ARPA)



Workforce Development, Business Supports, Infrastructure Upgrades

Economic recovery funding that includes infrastructure upgrades

2021: Bipartisan Infrastructure Law (BIL)

Transportation, Environment & Resiliency, Energy, Broadband

Many initiatives targeting community infrastructure

2022: Inflation Reduction Act (IRA)

Clean Energy

Much in form of incentives for individuals and private firms (tax credits, loans, grants)

2022: CHIPS & Science Act (CHIPS)

Semiconductors manufacturing & Science R&D

Incentives for semiconductor manufacturers, plus significant funding for research and workforce institutions

GOVERNOR'S INFRASTRUCTURE IMPLEMENTATION COMMITTEE

Governor Mills signed Executive Order 2 on April 25, 2022, to mobilize a cross-agency effort to coordinate Bipartisan Infrastructure Law (BIL) implementation among the state, municipal, tribal, county and other government entities in Maine. The ongoing coordination has expanded to include focus on multi-agency IRA and CHIPS opportunities.

Members of the Committee includes leadership and staff from:

- Department of Administrative and Financial Services (DAFS)
- Department of Economic and Community Development (DECD)
- Department of Environmental Protection (DEP)
- Department of Health and Human Services (DHHS)
- Department of Transportation (DOT)
- Governors Energy Office (GEO)
- Staff from the Governor's Office and the Governor's Office of Policy Innovation and the Future will provide Committee Leadership and staffing support (GO & GOPIF)
- Department of Labor, the Maine Connectivity Authority, Maine Housing, and the Efficiency Maine Trust collaborate with the Committee and working groups as needed

Justice40 Staff Working Group – established to align agencies around the federal requirement of delivering and tracking at least 40% of benefits to Priority and Disadvantaged Communities

Resilience Working Group – Coordinating funding of natural resource and resilience projects, led by GOPIF and DOT staff. Other agencies include:

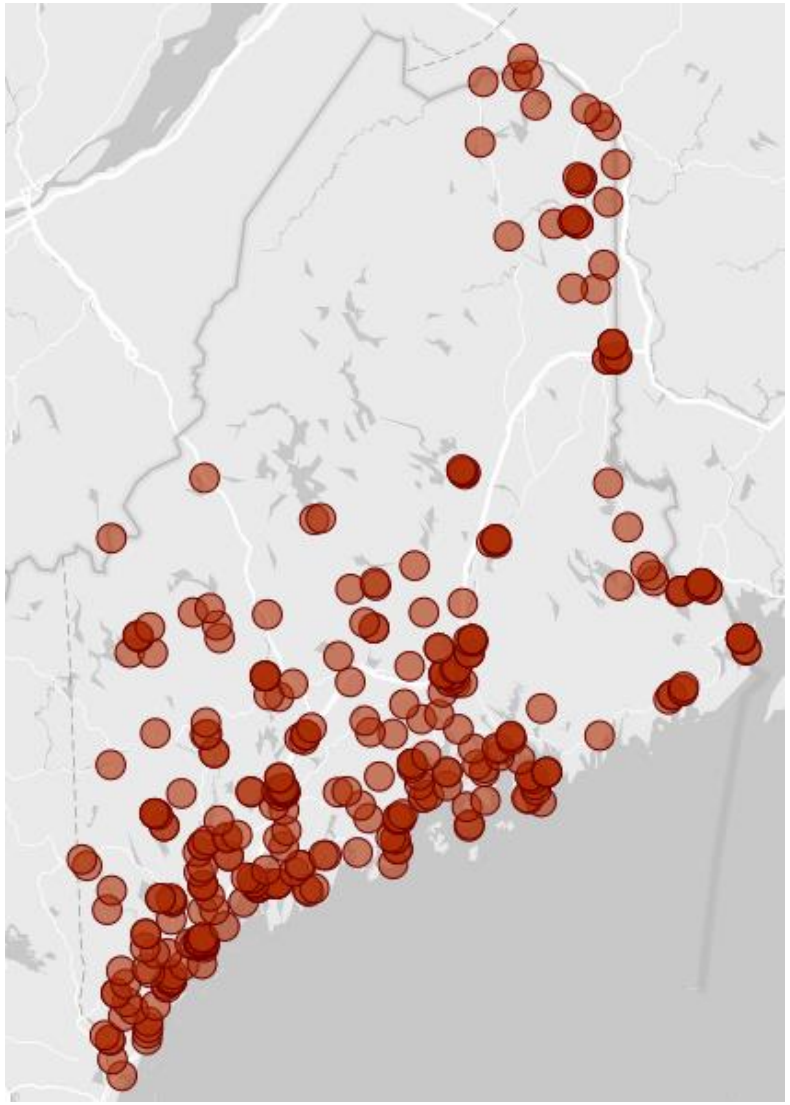
- Department of Marine Resources
- Department of Agriculture, Conservation, & Forestry
- Department of Inland Fisheries and Wildlife (DIF&W)
- Maine Emergency Management Agency

Broadband Working Group – established to align broadband infrastructure needs and plans with other projects and Agencies

Workforce Working Group – Led by DOL and established to identify and address cross-agency infrastructure workforce needs and funding opportunities

PROGRESS IN MAINE

- To date, over $2 billion in federal infrastructure funding (both formula and competitive) has been announced for projects in Maine, including:
- $1.4 billion for transportation infrastructure (roads, bridges, public transit, ports, and airports)
- $340 million for projects to increase climate resilience and protect Maine's environment
- $303 million to expand broadband access
- $83 million for clean energy, energy efficiency, and power



BIL/IRA/CHIPS funding in Maine to date

OUR PLAN FOR TODAY

✓ Welcome

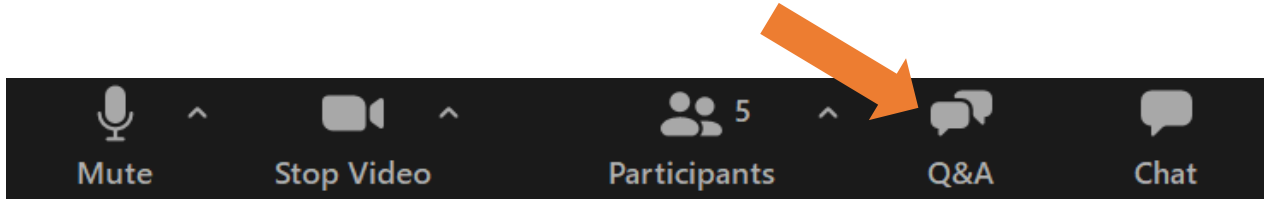
Federal Funding for Broadband & Technology

Opportunities for Local Communities

Staying in Touch: Website, Email bulletin, Other resources

ZOOM INFO

- During webinar, you can submit questions using Zoom's Q&A feature:



- The presentation is being recorded
- A copy of the materials will be available following the webinar on our website: www.maine.gov/bil

WHAT IS IN THE BIPARTISAN INFRASTRUCTURE LAW?

WHAT IS IN THE BIPARTISAN INFRASTRUCTURE LAW?

Webinar – Jan 18, 2024

Transportation

- Roads & Bridges
- EV Charging Stations
- Ferries & Ferry Terminals
- Airports & Ports of Entry
- Public Transit
- Downtown Revitalizat-ion Projects

Broadband & Technology

- TA & Community Capacity Building
- Middle Mile Investments
- Digital Equity
- State & Local Cyber-Security
- Rural Broadband Expansion
- Mapping of Broadband Infra-structure

Webinar – Feb. 15, 2024

Energy Programs & Building Efficiency

- Grid Resilience
- Weather-ization & Heating Assistance
- Energy Efficiency in Schools
- Training on Updated Building Codes
- Reduce Industrial Emissions
- Wind & Marine Energy

Webinar – Feb. 29, 2024

Resilience & Environmental Protection

- Superfund & Brownfield Cleanups
- Clean Drinking Water
- Wastewater
- Fish Passage & Habitat Restoration
- Wildfire Prevention
- Flood Mitigation

OUR PLAN FOR TODAY

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- ✓ Federal Funding for Broadband & Technology

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OPPORTUNITIES FOR LOCAL COMMUNITIES

Broadband:

- Broadband Equity, Access, and Deployment (BEAD)
- Middle Mile (MOOSE Net)
- Digital Equity
- Connectivity Hubs

Information Technology:

- State and Local Cybersecurity Grant Program

Let’s establish some terms

- **Broadband** is high speed internet access that is always on, delivered by one of these technologies:
  - Fiber optic
  - Cable
  - Satellite
- Service is **symmetrical** when the download speed and upload speeds are the same. Download speeds are stated first, upload second. Previously, people “took” more from the internet than they “gave”, so download speed was more important. That is no longer the case. Symmetrical speed is the standard.
- FCC’s current definition of broadband is **25/3 Mbps**. They have put forth a proposal to update to 100/25 Mbps, but that has not been implemented.
- Maine’s definition of broadband is **100/100 Mbps**, adopted in statute, so that is MCA’s goal for all our funding programs.

What's the Problem?

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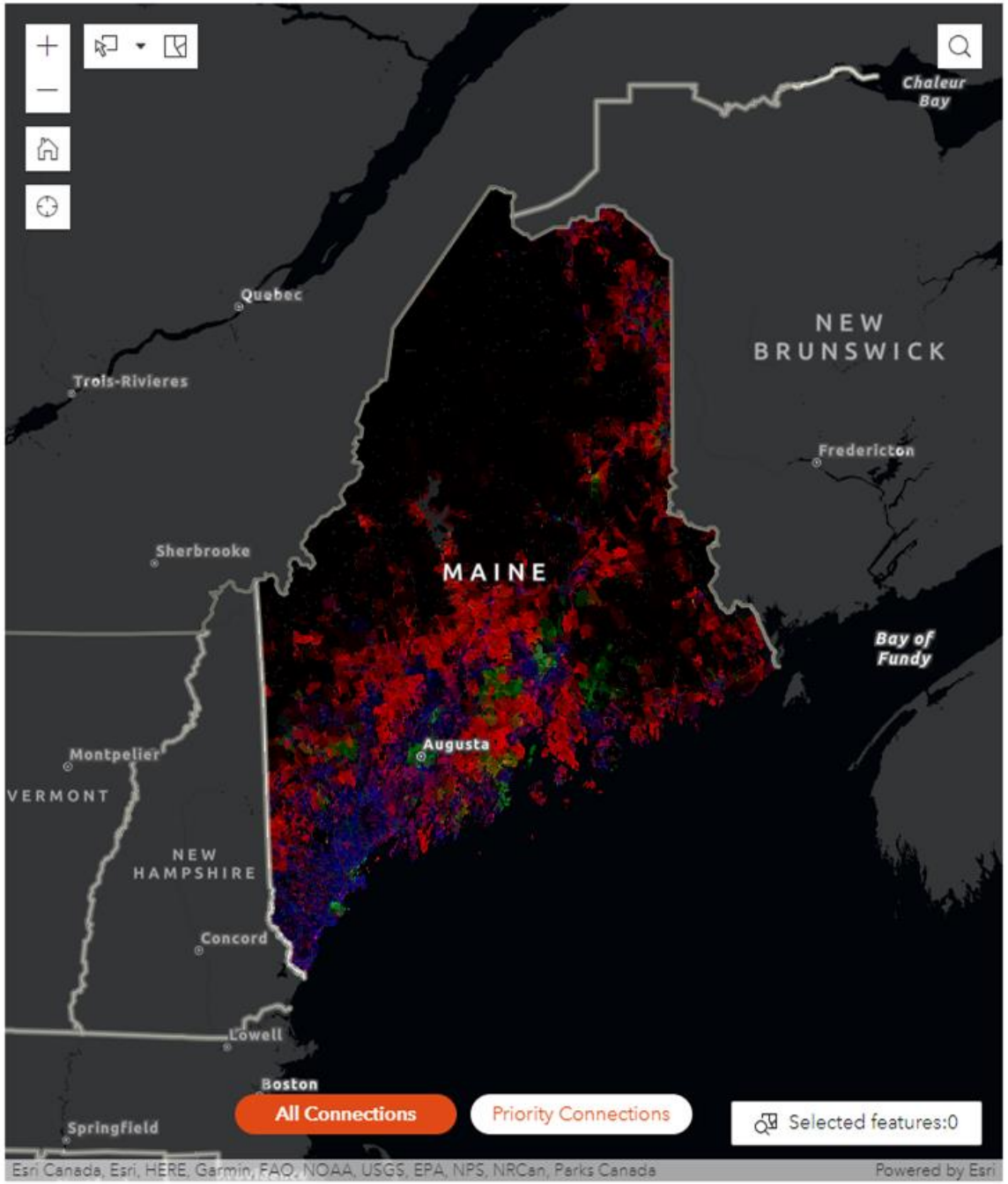
Where Is the Problem?



This map shows the concentrations of locations by service availability

Red areas have more unserved locations (speeds below 100/20)

Purple/pink areas have a high concentration of unserved **AND** underserved locations

Yellow/orange areas have a high concentration of unserved **AND** served locations

Blue areas have more underserved locations (speeds above 100/20 but below 100/100)

Green areas have more served locations (speeds above 100/100)

Cyan areas have a high concentration of served **AND** underserved locations

*Color intensity represents the concentration of the service types. Areas in gray and **black** have fewer locations.*

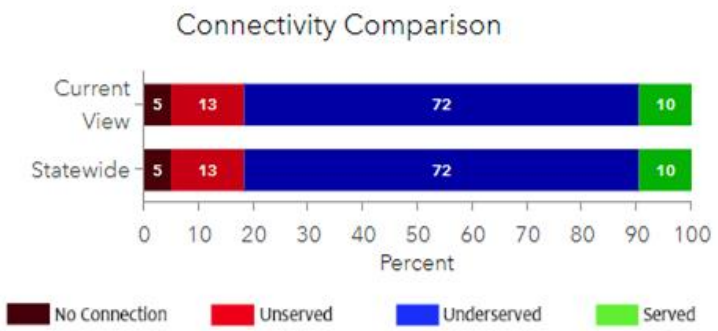


Chart compares connectivity rates of the current map view to statewide connectivity rates.

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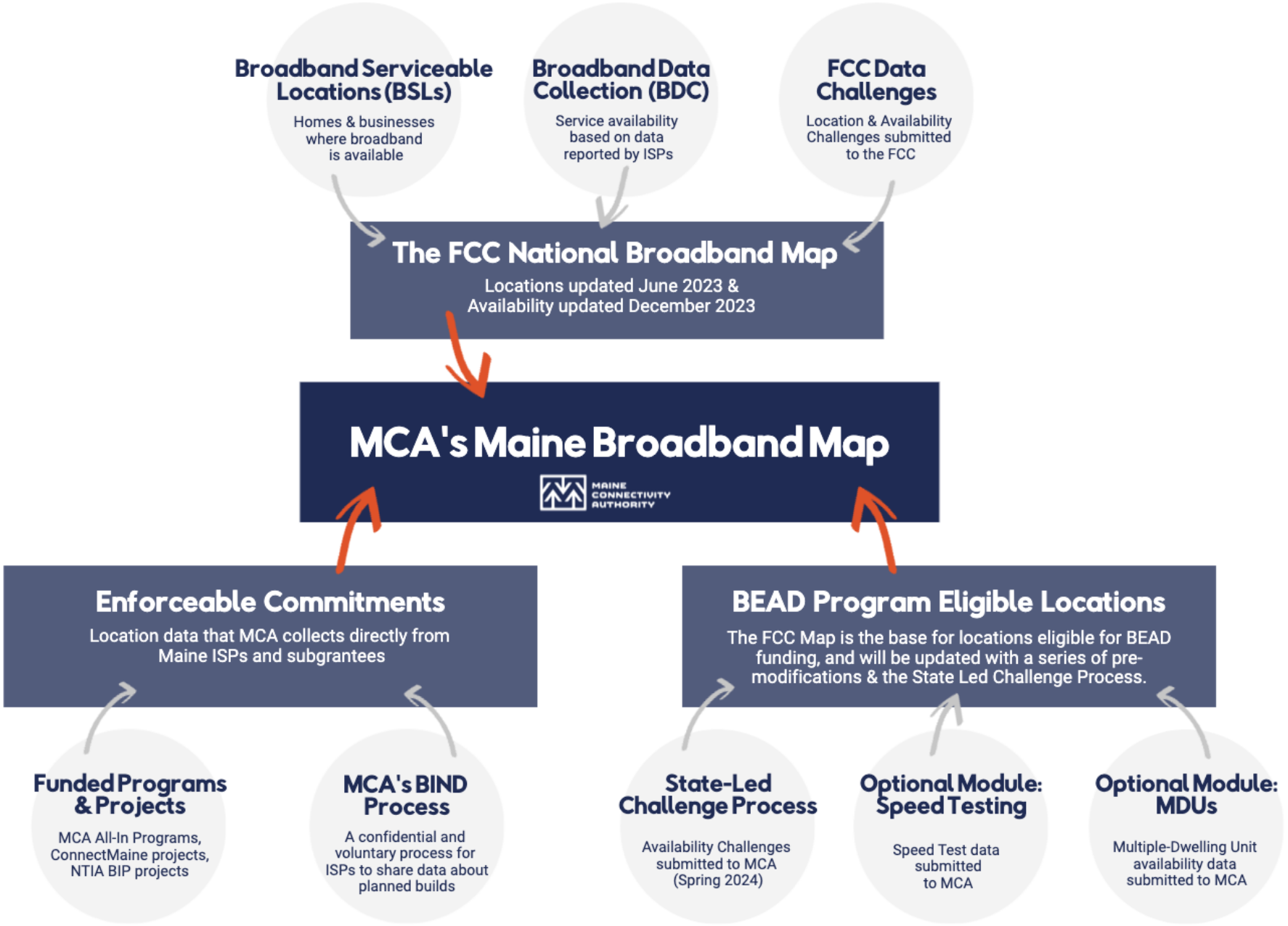
What goes into Maine's Map?



** Changes to the BEAD map as a result of the State Led Challenge Process will not directly update FCC location or availability data.*

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Increasing Data Fidelity

- The fidelity and detail of the location and availability data available to MCA has increased dramatically in the past two years.
- Previous data was reported using the FCC Form 477 model that allowed ISPs to report availability data at the census block level.
    - **There are 69,518 census blocks in Maine**
- Updated data reporting is based on the new FCC fabric including individual broadband serviceable locations.
    - **There are ~634,000 fabric locations* in Maine**
- **The fidelity and clarity of MCA's view of locations with no connection has increased 9x**.

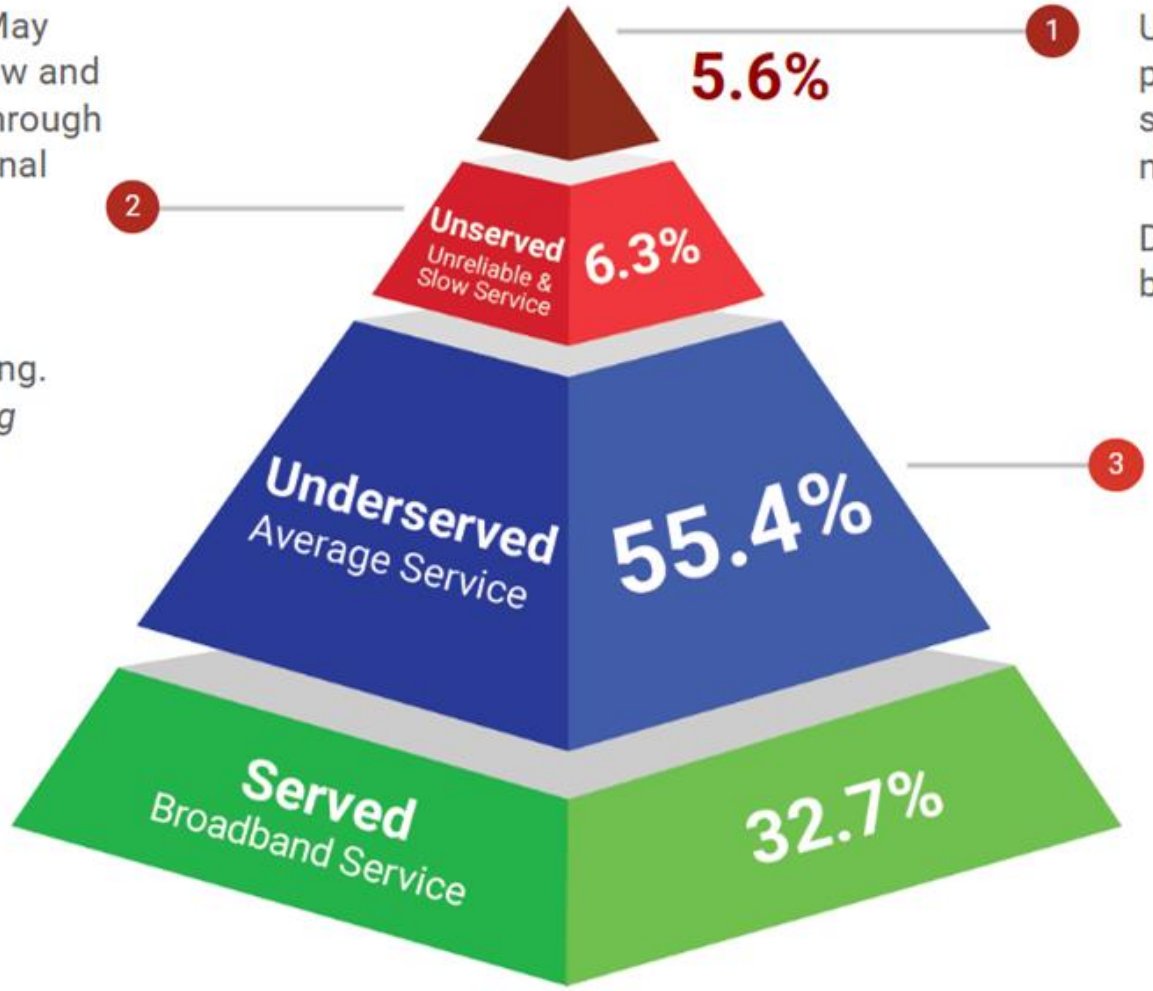
** This number continues to change with each version of the FCC fabric.*

Service Availability Data *(Dec 2023)*

Unserved

Est. 6.3% of locations. May have connection, but slow and unreliable. To address through community-driven, regional scale Public Private Partnerships.

Deployments underway currently via ARPA funding.
**The % may be increasing*



Most Critical / No Connection

Est. 5.6% of locations. Updated data to target and prioritize in grants and special deployments as needed including wireless.

Decisions and deployment by end of 2024.

Inadequately Served

Est. 55.4% of locations. May have connection but affordability and speed issues remain. BEAD funding limited. Will need to leverage private funds.

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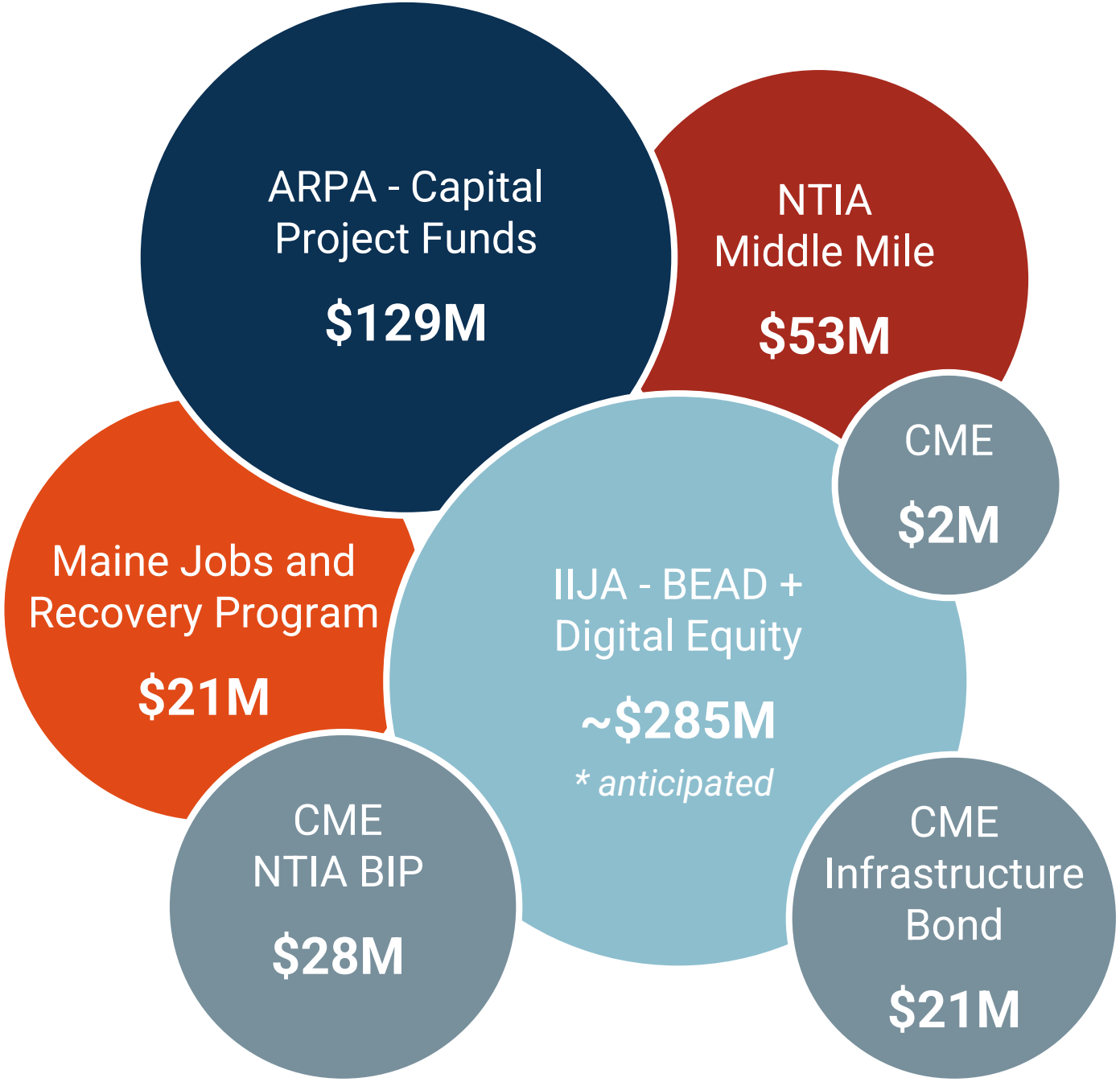
What is the Scale of the Problem?

Technical Definition	Working / Colloquial Definition	BEAD Definition	Number of Locations	% of Locations
No Connection *< 25/3 Mbps*	**No Service**	**BEAD Priority** ***Eligible***	**35,575**	**5.6%**
Unserved *25/3 to 100/20 Mbps*	Unreliable & Slow Service	BEAD Secondary *Ineligible, until all eligible are served*	**39,578**	**6.3%**
Underserved *100/20 to 100/100 Mbps*	Average Service	BEAD Ineligible	**349,814**	**55.4%**
Served *>100/100 Mbps*	Reliable & Fast Service		**206,981**	**32.7%**

Sources of Funding

- $200M currently under management
- Additional $338M through BIL
- Key to success: Braid Funds + Maximize Impact
- Already deploying funds and enabling connections across Maine - over 77,000 so far!



Existing Funding Deployed

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Program	Connections	Funding	Leveraged Investment	Scale	Award Dates
Connect the Ready: Cohort 2 *Public Private Partnerships*	6,500	$21M	$11M	5 Projects	December 2023
Partnerships Enabling Middle Mile *Leverage Middle Mile for Last Mile*	18,000	$16M	$14M	3 Projects	December 2023
Reach Me *Line Extension Incentives*	6,300	$20M	$13M	10 Projects	April 2023
Connect the Ready *Public Private Partnerships*	18,300	$40M	$20M	14 Projects	January 2023
Jumpstart Connectivity *Wireless Trial Projects*	1,470	$1M	$1M	3 Projects	December 2022
NTIA BIP Mountains to Sea *Public Private Partnerships*	14,400	$28M	$5M	7 Projects	2022
CME Bond + CPF Infrastructure *Public Private Partnerships*	12,900	$21M	$20M	22 Projects	2021 & 2022
Total	**77,870**	**$147M**	**$84M**	**64 Projects**	

The BEAD Program

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Broadband Equity, Access and Deployment (BEAD)

Overview	Broadband Equity, Access, and Deployment (BEAD) Program is funded through the Bipartisan Infrastructure Law and will provide Maine with a $272 million grant that will bring critical resources to fund broadband infrastructure and digital equity for the entire state. The BEAD program prioritizes Broadband Serviceable Locations (BSLs) that are unserved (less than 25/3 Mbps) and underserved (less than 100/20 Mbps).
Candidates/ Eligibility	Details of eligibility will be published in mid-2024.
How to Access the Program	Details of how to access the program will be published in mid-2024. (Awards will be made to subgrantees who can provide service to eligible project areas.)
Timing	State Led Challenge Process - March 2024 Subgrantee Selection Process - July 2024
Website	https://www.maineconnectivity.org/bead
Contact	Brian Allenby, ballenby@maineconnectivity.org (207) 200-5824

But first, we must verify the map…

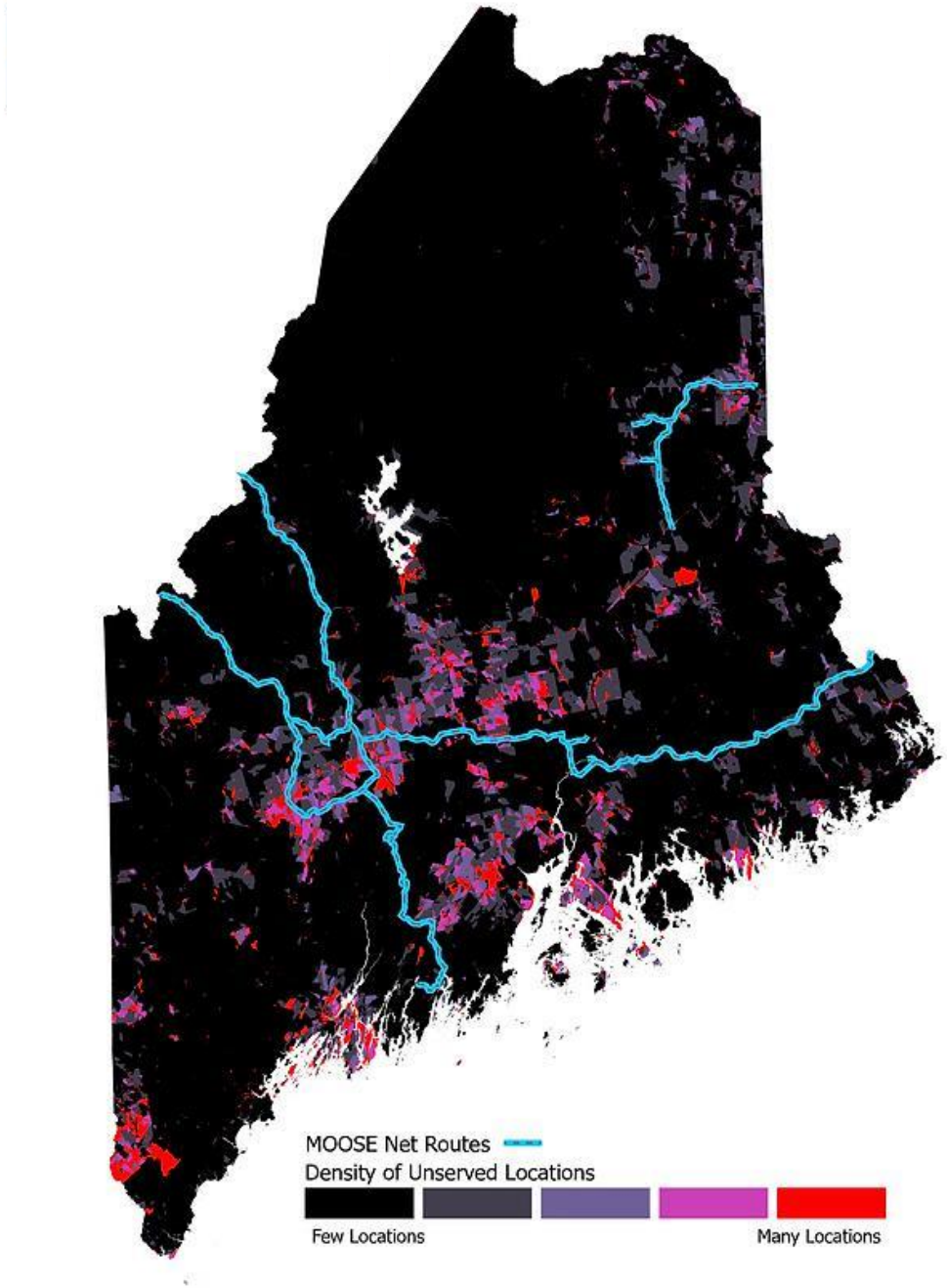
- **State led challenge process** is MCA's opportunity to create an accurate map of locations where BEAD funding can be deployed.
- Outlined in detail in the BEAD Initial Proposal Vol. 1
- MCA is using NTIA's Model Challenge Process, and also adopting several optional modules:
  - Speed Testing (launching in February)
  - Area Challenge
  - MDU Challenge
- State Led Challenge Process Portal will be hosted by VETRO
- Speed Testing Platform will be hosted by Breaking Point Solutions (host of the current Maine Speed Test)
- Eligible Challengers include: units of local, regional, tribal government, and other non-profit organizations

Then, how do the projects happen?

- **Subgrantee Selection Process** is how MCA awards the funding to qualified parties to build the networks to unserved and underserved locations.
- Pre-Qualification, Application, and Evaluation processes that will ultimately select the entities receiving BEAD funds for each Project Service Area.
- Outlined in the BEAD Initial Proposal Vol. 2
- The evolution and definition of BEAD Project Service Areas will continue through the winter and spring with feedback from stakeholders, with the final areas being released in June.
- Evaluation of the pre-qualification submissions, and ultimate application submissions will be managed by MCA with external support from partners (TBD).
- The ultimate product of the SSP will be conditionally approved by the board in December.

Middle Mile (MOOSE Net)

- The Maine Online Optical Statewide Enabling Network (MOOS Net) is a new **$53 million strategic initiative** created by the Maine Connectivity Authority to support the goal of universal broadband access throughout the state.
- In June, Maine received a **$30 million competitive grant awar** from the National Telecommunications Information Administration's (NTIA) Enabling Middle Mile Broadband Infrastructure Program to help fund MOOSE Net.
- MOOSE Net covers **530 miles, 131 communities**, representing over **11,000 unserved local businesses and residents**. It will reach more than **200 community anchor institutions**, includin schools, hospitals, libraries, local government buildings, and civic centers.
- https://www.maineconnectivity.org/middle-mile



Digital Equity

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The Problem, the Work, and the Goal

Digital Divide

The gap between those who have affordable access, skills and support and those who don't.

Digital Inclusion

Activities to ensure that all individuals and communities, including the most disadvantaged, have access to and use of information and communication technologies.

Digital Equity

All individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy.

Digital Equity Act: Who & What

WHO *Covered Populations*

- Low Income Households
- Older Adults
- Incarcerated, formerly incarcerated
- Veterans
- Individuals with disabilities
- Individuals with language barriers
- Individuals who are members of racial & ethnic minority groups
- People who primarily reside in rural areas

WHAT *Elements of Digital Equity*

- Affordable Access
- Digital Skills
- Affordable Devices & Technical Support
- Accessible, Inclusive Public Resources & Services
- Internet Safety

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Digital Equity Goals

- **Reach 50,000 underserved Mainers** with affordable devices, digital skills, internet safety education and tools
- 100% of devices provided **come with technical support**
- Enroll an additional **84,000 eligible households** in the Affordable Connectivity Program
- Explore & expand connectivity (wifi & wired) of **41,000 subsidized affordable housing units**
- Generate **25,000 donated devices** for refurbishment
- User-centered audit on **top ten state resources/programs** used by covered populations
- Raise **$15M Digital Equity Fund** (to complement federal funding)

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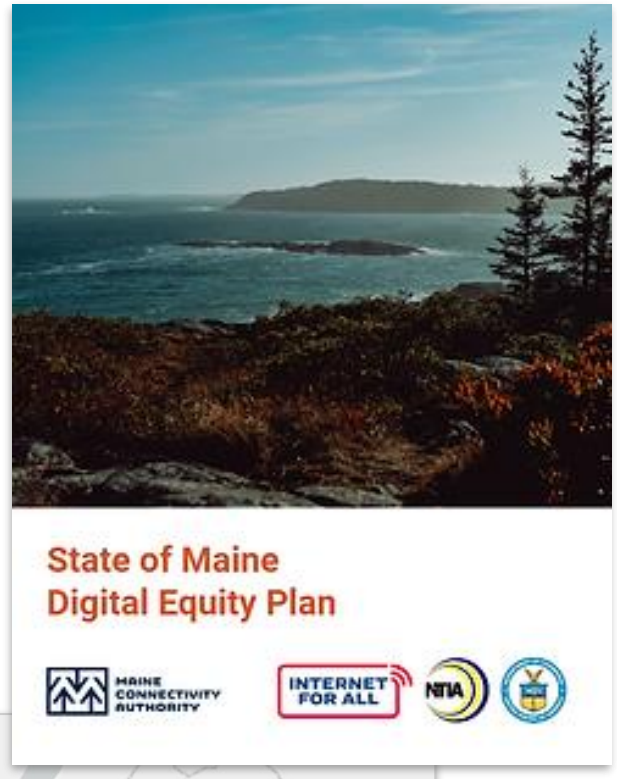
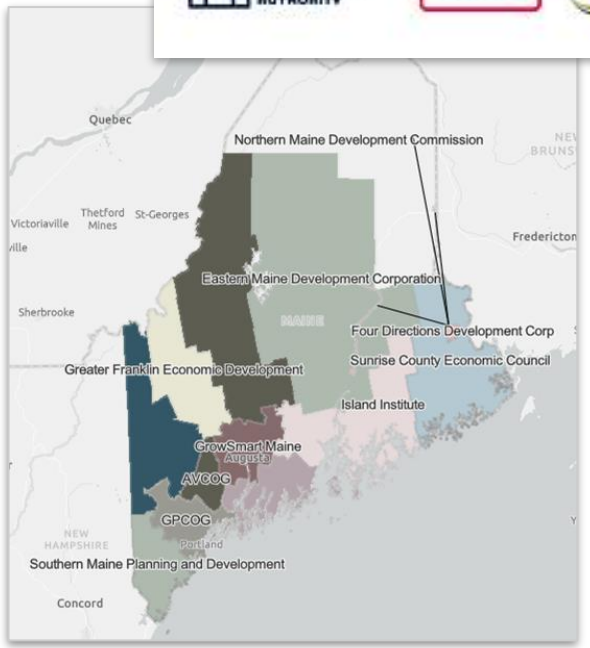
Digital Equity Plans

- **Statewide Digital Equity Plan** is available at www.maineconnectivity.org/digital-equity
- **Regional digital equity plans** have also been completed
- Connect with your regional partners by going to https://www.maineconnectivity.org/regional-broadband-partners





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Digital Equity Implementation Funding

Overview	Digital Equity Implementation Funding
Candidates/ Eligibility	Details of eligibility will be published in early 2025.
How to Access Program	Communities should connect with their regional and tribal partners to get familiar with the regional plans. Join the regional coalitions and begin to understand what resources are already being offered at regional level - for example, device programs and digital skills and digital navigators.
Timing	Program design will be completed in late 2024.
Website	https://www.maineconnectivity.org/digital-equity
Contact	Jessica Perez, jperez@maineconnectivity.org, (207) 200-4753

Connectivity Hubs

Overview

To invest in new and existing community anchor institutions (CAIs) such as libraries, community centers, affordable housing developments, municipal or tribal buildings, and other gathering places that enable workforce training, education, and health monitoring for people most impacted by the digital divide. Grants $250k -$2M for capital improvements, such as facility construction and renovation, and essential assets like affordable devices for public access and lending programs.

Candidates/ Eligibility

Applicants must be a 501c3 non-profit organization or a community, municipal, county, state or tribal government entity.

How to Access Program

The Connectivity Hub program is not an open competitive grant process. Potential applicants must be invited to apply.

STEP 1: To be invited, complete Interest Form in MCA grant portal by 2/29/24. MCA staff will follow up by email or phone.

Timing

STEP 2: Applicants must complete the online application in the MCA grant portal once invited. Applications submitted by March 29, 2024, will be reviewed and considered for the first grant round to be approved in May 2024.

Website

https://www.maineconnectivity.org/connectivity-hubs

Contact

Jessica Perez, jperez@maineconnectivity.org, (207) 200-4753

State and Local Cybersecurity Grant Program (SLCGP)

Overview	In 2022, the Department of Homeland Security (DHS) announced a first-of-its-kind cybersecurity grant program specifically for state, local, and territorial governments nationwide. The State and Local Cybersecurity Grant Program (SLCGP) and the Tribal Cybersecurity Grant Program (TCGP) help eligible entities address cybersecurity risks and threats to information systems owned or operated by—or on behalf of—state, local, and territorial governments.
Eligibility/ Candidates:	Eligibility: States and territories are the only eligible entities for the SLCGP, and local and tribal governments are eligible sub-recipients. Candidates: Maine's local governments (counties, municipalities, and schools)
How to Access Program	Eligible local governments will be contacted directly with the next steps, in coordination with external messaging disseminated through partners (such as GOPIF, MMA, and the DOE). Subsequent stakeholder outreach and webinars will be held in 2024.
Timing	Through four distinct Notice of Funding Opportunities (NOFO), SLCGP and TCGP combined will distribute $1 billion through their multi-year performance periods to support projects nationwide.
Website	Federal: https://www.cisa.gov/state-and-local-cybersecurity-grant-program State: https://www.maine.gov/mema/grants/state-and-local-cybersecurity-grant-program
Contact	Planning Committee Chair: Nicholas Marquis, Acting Chief Information Officer Co-Chair: Nathan Willigar, Chief Information Security Officer General Questions: slcybersecurity.grant@maine.gov

Maine's SLCGP Accomplishments

Since the announcement of the FY22 federal funding, Maine has achieved several milestones necessary to secure the state's allocation:

- Established a multi-disciplinary Planning Committee with representative makeup as required by the grant
- Conducted a state-wide cybersecurity capability assessment (survey)
- Developed a strategic SLCGP Cybersecurity Plan, approved by the Federal Emergency Management Agency (FEMA) and the Cybersecurity and Infrastructure Security Agency (CISA)
- Submitted the required grant administrative paperwork to facilitate project-level planning (under review)

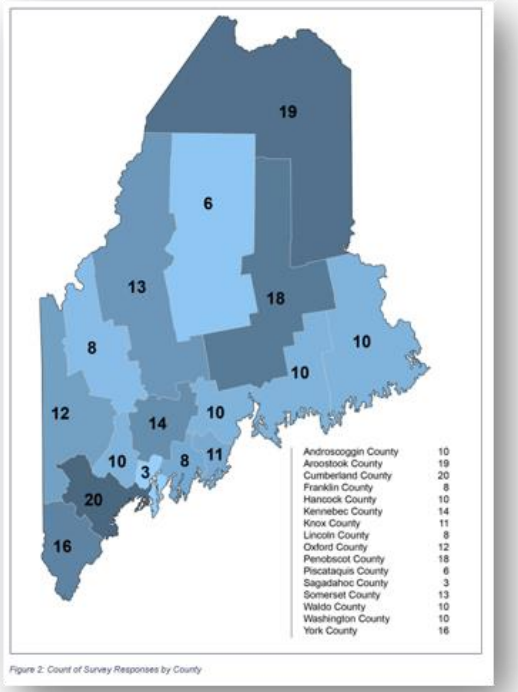
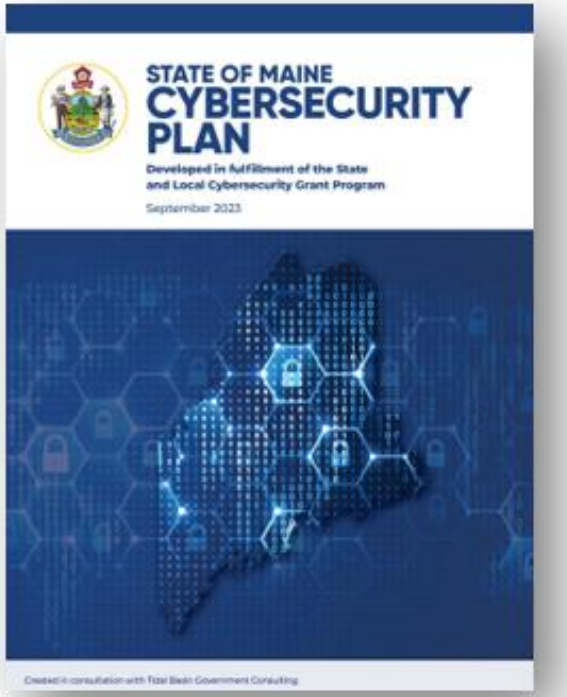


Figure 2: Count of Survey Responses by County



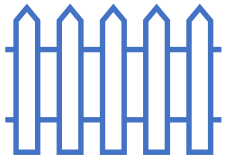
What will SLCGP Implementation Look Like in Maine?

Vision: A cyber-resilient Maine that realizes the opportunities afforded by technological innovation and balances the cybersecurity protections necessary to safeguard its data and critical infrastructure.

Mission: The State of Maine will lead and coordinate initiatives to reduce cybersecurity risks against State and local government-owned or operated information systems, mitigating the impacts on Maine's essential services and community members.

Build and leverage partnerships

Building relationships with partners across Maine and maintaining open lines of communication with critical infrastructure sector leads to ensure a coordinated approach



Reduce barriers

Strive to understand what barriers organizations face in implementing cybersecurity best practices and identify collective approaches to overcome them.

Increase resiliency

Build capability and capacity at the organizational level to ensure the impact of these cybersecurity initiatives is enduring and sustainable.

What will SLCGP Implementation Look Like in Maine?

The State of Maine intends to provide SLCGP-funded shared services to local governments. In the first year of the SLCGP, local governments can anticipate hearing more about the following offerings:

Security Awareness Training

Providing centrally managed security awareness training for end users (employees) in qualifying entities

Multi-Factor Authentication (MFA)

Providing MFA services to qualifying entities to implement on their networks

Cybersecurity Resources

Increasing practitioners' awareness and implementation of federally offered free and fee-based cybersecurity resources

Cybersecurity Resources

We'd like to highlight the many **free and fee-based cybersecurity resources that are available to local governments.** These resources will be promoted through upcoming outreach efforts, to increase awareness of these resource offerings.

We encourage organizations to:

- Join the Multi-State Information Sharing and Analysis Center and/or the Elections Infrastructure Information Sharing and Analysis Center (no cost)
- Sign up for CISA's Cyber Hygiene Vulnerability scanning program (no cost)
- Complete the National Cyber Security Review
- Participate in Maine's SLCGP offerings
- Gain familiarity with the many resource offerings through the links provided in this slide

Resource Links:

- Center for Internet Security Resource Page
- MEMA's Cyber Security Resource Page
- MEMA's SLCGP Website
- Federal SLCGP Website (CISA)

Questions or Concerns:

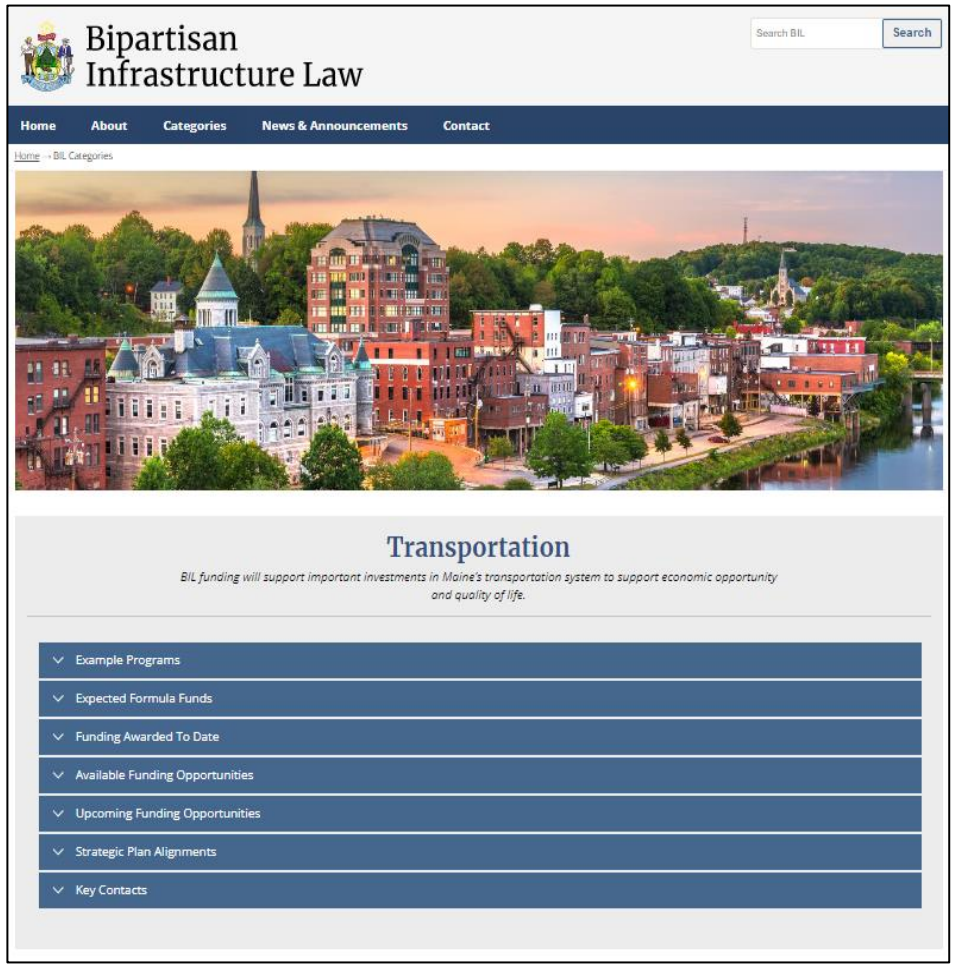
- Planning Committee Chair: Nicholas Marquis, Acting Chief Information Officer
- Co-Chair: Nathan Willigar, Chief Information Security Officer
- General Questions: slcybersecurity.grant@maine.gov

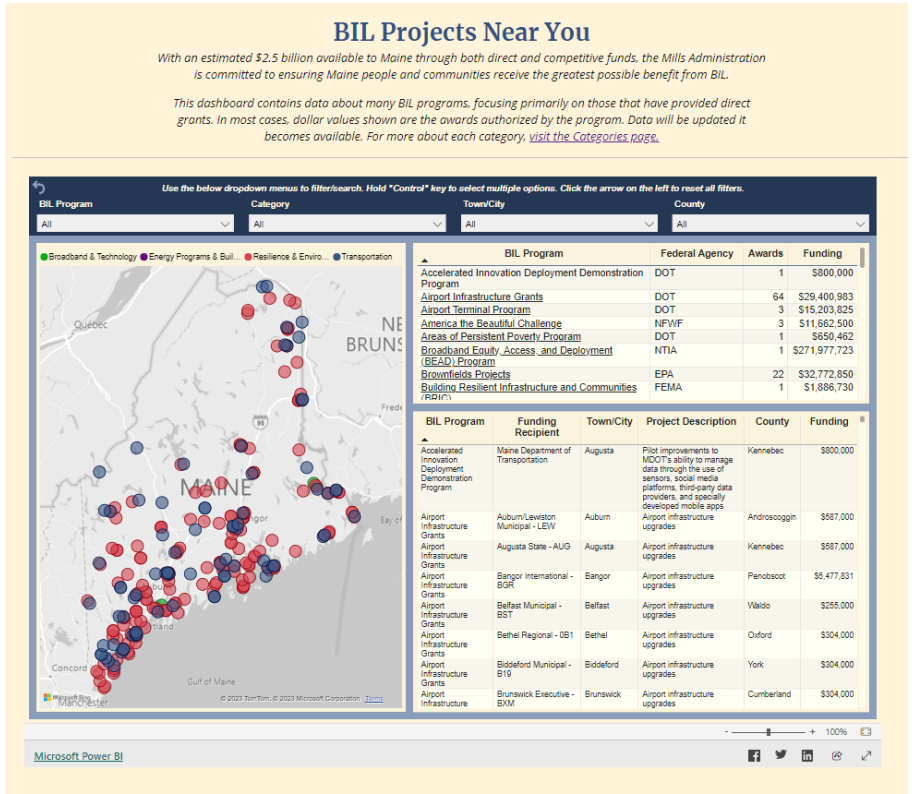
OUR PLAN FOR TODAY

- ✓ Welcome
- ✓ Federal Funding for Broadband & Technology
- ✓ Opportunities for Local Communities

Staying in Touch: Website, Email bulletin, Other resources

MAINE.GOV/BIL





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BIL News & Announcements

Transportation

- **December 16, 2021**: FAA Announces First-Year Airport Funding Amounts from Bipartisan Infrastructure Law
- **January 14, 2022:** DOT Announces Historic Bridge Investment Under Bipartisan Infrastructure Law
- **July 7, 2022:** Biden Administration Announces Nearly $1B in Bipartisan Infrastructure Law Funding Improving Airport Terminals across U.S.
- **August 5, 2022**: Biden-Harris Administration, U.S. Department of Transportation Announce $172 Million to Improve Ferry Service in 35 States, 3 Territories
- **August 8, 2022:** Biden-Harris Administration Announces Funding for 166 Projects to Modernize Transportation Across the Country and Make it More Affordable, Increase Safety and Strengthen Supply Chains
- **August 16, 2022**: Biden-Harris Administration Announces Over $1.6 Billion in Bipartisan Infrastructure Law Funding to Nearly Double the Number of Clean Transit Buses on America's Roads
- **September 14, 2022**: Biden-Harris Administration Announces Approval of First 35 State Plans to Build Out EV Charging Infrastructure Across 53,000 Miles of Highways
- **September 15, 2022:** Biden-Harris Administration Announces $1.5 Billion from the Bipartisan Infrastructure Law for 26 Transportation Projects Nationwide
- **October 31, 2022:** Biden-Harris Administration Announces More than $13 Million from EPA's Clean School Bus Program for 13 Maine School Districts

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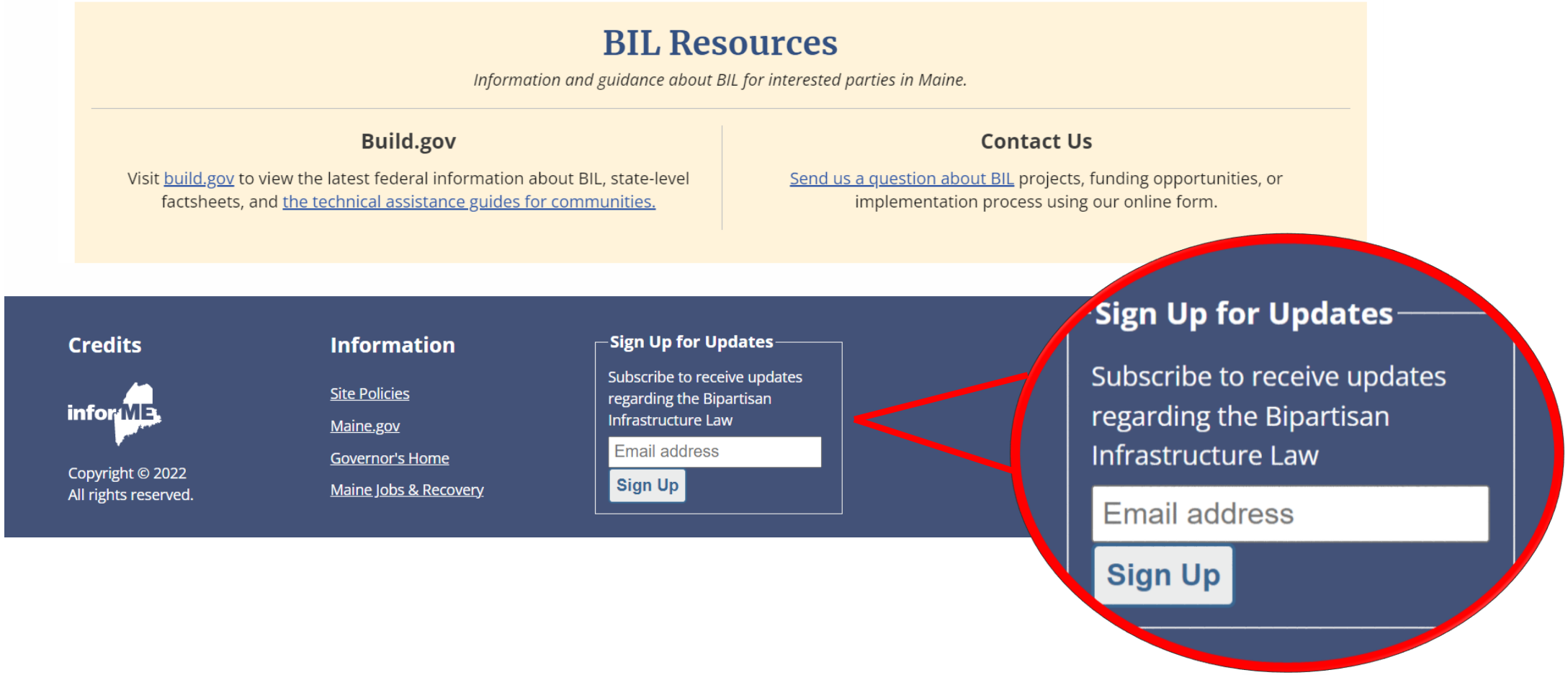

Q&A

Thank you for listening!

We will now take some time to answer questions that have come in through the Q&A feature on Zoom.

THANK YOU

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