BEAD Challenge Process with EducationSuperHighway

Ensuring Accurate MDU Broadband Service Availability

Sara Arman: Thank you Kate. Welcome. Thank you all so much for joining today's webinar on the BEAD challenge process. My name is Sara Arman and I'm the program lead for ConnectHome USA, the Department of Housing and Urban Development's signature digital inclusion program. Today's webinar will focus on the Broadband Equity Access and Deployment program, which provides nearly $42.5 billion to expand high speed internet access across the country. Part of this program includes challenging existing broadband maps. This is a one time process that ensures accurate reflection of connectivity. The impact of this challenge process will be felt for years in our communities. So thank you all so much for joining this urgent and important conversation. Today we will be hearing from EducationSuperHighway, HUD's nonprofit partner that has the mission of closing the digital divide for the 18 for 18 million households across the country. EducationSuperHighway will walk us through the challenge process, and there will be time for question and answer at the end. In the event that we cannot answer your question, we will plan to follow up with you all. Now to introduce our panelists, Sean Gerner.

Sean is the apartment Wi-Fi senior program director at Education Superhighway. He leads the team in developing a vision for how Wi-Fi networks can be deployed in underserved apartment communities. Before joining Education Superhighway, Sean spent almost 20 years in the telecommunications industry with Sprint and Lumen Technologies. Most recently, he was responsible for launching property wide Wi-Fi into new, highly competitive markets. Joelle Tolifero. Joelle serves as a Community Impact manager at Education Superhighway, overseeing outreach campaigns to building owners and relevant apartment Wi-Fi stakeholders. Joelle's career has been in higher education and global inclusion, where she fostered communities for students and led service learning programs abroad for 12 years. And finally, last but not least, Peter Paskowsky. Peter is a principal network consultant at Education Super Highway and brings over a decade of experience as a network engineer. He has worked for numerous organizations demonstrating his expertise in the field, most notably as part of the United States Antarctic Program. So thank you so much, Sean, Joelle, and Peter, for joining us today. And I'm passing it over to you.

Joelle Tolifero: Hello everyone! Today we will be talking about the State Bead Challenge process and providing a step by step guide to ensuring accurate broadband service availability. Next slide please. As Sara mentioned, my name is Joelle. I'm the community impact manager, and I'll let my colleagues just give a wave so you can put a name to a face. We have Peter, our network consultant, and Sean, our senior program director. You might also see some responses in the Q&A box from our colleague Stephanie, who is one of the team's general managers. Today we will cover education, superhighways, history and mission, an overview of the apartment Wi-Fi team's work, the Broadband Equity Access and Deployment or BEAD program, and the BEAD challenge process. We'll then close out and share next steps before engaging in a Q&A. Next slide. As many of you may know, education superhighways mission started with a focus on K through 12 schools. When our organization was formed in 2013, only 10% of students had access to broadband connectivity. By 2020, we connected 99.6% of students to high speed broadband internet, and 99.3% of their schools were connected via a fiber network.

At the same time, the pandemic shifted our focus to households and informed our new mission to close the digital divide for the 17 million households that have access to the internet but can't afford to connect. Next slide. Our team, specifically the apartment Wi-Fi team, works on finding and elevating the best solutions for the connectivity of multifamily housing communities. Since Education Superhighway is a national nonprofit, you can think of the apartment Wi-Fi team as pro bono network consultants. We are not a provider and have vendor and a vendor agnostic approach to make sure that we provide the best recommendations to our partners. We also pay close attention to industry trends and state and national funding opportunities that can aid in closing the digital divide. This is what brings all of us here today and why you all signed up to engage with us. Thanks again for being here for this important conversation on the BEAD challenge process, and I'll pass it over to Sean to give more insight on exactly what BEAD is. Next slide please.

Sean Gerner: Myself situated here. Thanks, Joelle. Thanks so much. Um, as Joelle mentioned earlier, the primary reason for today's call is to help you all understand the state challenge processes that are underway, or will be starting very shortly. Before we jump into the details on the challenge process, specifically, we want to make sure that everyone has a baseline level of knowledge with BEAD, the Broadband Equity Access and Deployment Program. So BEAD, as part of the Infrastructure Investment and Jobs Act, which is a bipartisan infrastructure law that was passed back in November of 2021. The BEAD program is allocated almost $43 billion to states to expand high speed internet access. Every eligible entity, which are states and territories, were allocated a minimum of $25 million. Eligible entities then received additional funds based on the number of broadband serviceable locations that they need to address. On the slide deck, we've provided a link to the NTIA website, so if you're interested in seeing how much money was allocated to your specific state, you can go to the link and check out all the details. The BEAD program has very specific priorities that these eligible entities must follow. So first, states must fix locations that are classified as unserved. This means the location does not have internet access capable of delivering speeds of 25 MBs download by three MBs upload. After all unserved locations have been addressed, the state is then required to fix all underserved locations. These locations lack internet access, capable of delivering 100MBs download by 20MBs upload. And then lastly, once all unserved and underserved locations have been addressed, the state is then required to bring gigabit symmetric internet access to all community anchor institutions currently lacking gigabit symmetric service.

Community anchor institutions, or as we refer to them as CAIs, are defined slightly differently by every state, but generally they're going to include locations such as senior centers, schools, libraries, and also public housing. Peter will walk through the challenge specifics in a bit, but it's worth mentioning the importance of this priority order. If your location is already classified as unserved or underserved, it will receive funding before your CAIs. Therefore, you should not challenge your location to be reclassified as a CAI. You would effectively be moving it from first or second priority for funding down to third. On the other hand, if your location is currently served and that is an accurate classification. So let's say, for example, Spectrum provides one GB download by 50 MB uploads on a coax connection, in this scenario, you should actually submit a CAI challenge because Spectrum is not able to provide one GB symmetric service. Next slide please. Okay. So you know a little bit about the BEAD program, but what specifically are eligible entities allowed to spend the money on? In NTIA’s notification of funding opportunity,

there are eight specific eligible uses for the funds in connection with what they call last mile broadband deployment projects. We know almost all of the funds will likely be spent in these three areas. The first is planning.

So all of the states need to hire additional staff. They need to conduct research, analyze data. Some of them are hiring consultants or vendors to help them with items such as the state challenge process, instead of doing it all in-house. They also need to perform other functions like outreach and engagement with local communities. The second is deploying or upgrading internet for all of the unserved, underserved and community anchor institution locations that are eligible for funding. And then the third, which is what's most important and valuable to everyone on today's webinar, which is installing internet and Wi-Fi infrastructure in eligible Multi-dwelling units or MDAs, public housing and apartment buildings typically fall into this category. Over the last year, EducationSuperHighway has been advocating to all of the state broadband offices that if an MDU is unserved or underserved, the state's requirement should be that service providers don't just bring internet access to the building, but they install internet and Wi-Fi infrastructure within the building that can connect every single unit and every single household living there, which is clearly stated in the BEAD funding notice. Next slide, please. So to get involved, the first step is to see how your building is currently classified. If your building is marked as unserved or underserved, you're likely good to go. The state will be investing BEAD dollars in bringing new high speed internet connectivity to your location in the coming few years. If your building is marked as served, this is where you may be able to put in a challenge to ensure that you are correctly classified.

Most states are working on their own version of a broadband map, so the information on their map is the most relevant to you. You can find each state map on your state broadband office's website. Not all states have released their individual map yet. In some states may choose to simply use the FCC's National Broadband Map instead of creating their own. Either way, a good place to start is at the FCC's National Broadband Map, which is broadbandmap.fcc.gov. To use this website, you simply enter the address of your building. You will see a summary of your property as shown in the screenshot here on the slide. It can be a little finicky, so you may have to click on the dot that illustrates your building for the information panel on the right hand side to pop up. In this particular screenshot, which is for 1125 Commerce Road in Richmond, Virginia, you can see that there are 27 units in this particular MDU and that the current status is classified as served. If you look below that, you'll see in the provider list. Comcast right now is currently claiming they offer 1200 MB download by 35 MB upload, which puts this property in that serve status. Keep that in mind for later. So what we're really looking for here are inconsistencies. You all know your properties best. Are these providers in fact available in your building? Are they available for all of the units or just some of the units? Are they offering the speeds and the technology that they claim? Have you received complaints from residents that would dispute this information? That's what these challenges in this process is all about.

Next slide please. All right. So giving you a little bit of a preview on Bede and some insight into the national broadband maps in the state broadband maps, you might be asking, you know, why is this important? How does this impact me? So we need to take a step back and look at the creation of the National Broadband Map in order to answer those questions. So every location on the National Broadband Map is considered one broadband serviceable location, or BSL,

regardless of what that location is. So a single family home, a farm, a small business, all one broadband service of a location. A mid-rise public housing apartment building with 200 units, 200 families living there in need of internet access, also one broadband serviceable location. The FCC asked internet service providers to self-report and tell them which BSL's they could theoretically provide service to within a ten day installation window, but only at the address or the BSL level, not at the unit or the household level. Because ISPs did not have to provide accurate reporting at the unit level, all of the states are using data that does not paint the entire picture of connectivity within MDU's.

The state challenge process, which we're talking about today, this is your one opportunity to essentially raise your hand and say, hey, wait a minute, that's not right. That provider does not actually serve the residents of my building. They don't provide that technology that they're claiming. This is why it's so crucial for all of you to participate in this process. Next slide please. So nothing is more important and powerful than some real life examples. So I wanted to provide you all with a few scenarios that we ran into for the last three months or so. EducationSuperhighway has been conducting desktop assessment research for MDAs across the country and the availability of internet. We started with Colorado as kind of our test subject, where the apartment Wi-Fi team split up the work, and we personally tried to order service for every single MDU in the state that had at least one service provider that was claiming to offer that minimum 100 by 20 required service or better at the location, which would classify the property as served. So these are some real responses from service providers in Colorado that we received as part of this research. In the first example, an ISP is claiming that they offer gigabit symmetric fiber service at the property. When you go to their website and you try to order service for one of the apartment units, you can only order 10 MB DSL service. So this location should be marked as unserved and eligible for BEAD funding. But unless someone successfully submits a challenge, it will remain classified as served in all of those residents will continue to be stuck with DSL. In a second example, the service provider was also self-reporting fiber here.

They didn't have an online address lookup tool, so we had a call and speak with their customer service department. The customer service rep told me that fiber was available, but after telling her it was an apartment building, she replied, oh no, never mind. We can't provide service there if it's an MDU. In another example, the service provider is self-reporting fiber. When you use their website lookup for the address, they don't actually have fiber in the entire area, much less this particular apartment building, but the entire area. Instead, what they ask you to do is fill out an interest form on their website and help them determine where they should build fiber next. And then lastly, another service provider offers multiple different types of internet service throughout the state. They self-reported that fiber is available at this particular apartment. But after speaking with a customer service rep, she informed me that they don't actually have fiber at the location, but they have fixed wireless, which can be 15 MBs at the highest. So in this particular example, this building should also be classified as unserved. But it's misclassified as served. Hopefully this has given you all some clarity around the BEAD program, funding and the broadband maps that will be utilized for these different processes. I'm going to pass it over to Peter, who's going to walk you through the actual state challenge process with some great information and illustrative examples on how to actually submit these challenges.

Peter Paskowsky: Great. Thank you so much, Sean. So, as Sean mentioned, this is a historic opportunity to improve internet access and affordability in your communities. The challenge process is so important because states are required to connect all locations that are marked as unserved, underserved, or as community anchor institutions with high speed internet connections. If your buildings are classified incorrectly, you will miss out on this opportunity. It is critical that you're involved because your residents cannot participate in this challenge process directly. Only internet service providers, nonprofits, and government entities like you can participate. Your residents are depending on you to advocate on their behalf. Every state is going to have its own challenge, process and timeline, and you can get the most up to date information for your state at your state broadband office website. And we have a little link on that slide for this. Okay. Can you go to the next slide please. So let's begin with a background on the be challenge process timeline. This process began in 2023, with states drafting their version one and version two BEAD documents. These documents outline a whole lot, but a quick summary is that volume one defines what will be connected, and volume two defines how it will be connected. All states have completed their volume one and volume two public comment periods by the end of 2023. So unfortunately, there's no longer any time to comment on them. But at EducationSuperHighway, we have been active throughout this entire process.

We've been reviewing every single state's proposal, and we've been giving bespoke advice to each of them. And as Sean mentioned earlier, we've been advocating for requiring connecting every unit in an apartment building, promoting managed Wi-Fi projects, and promoting affordable connectivity. So for the challenge process to begin, the NTIA must approve the BEADs -- the state's BEAD volume one document. After that document has been approved, each state will set their own challenge window timeline. The window is typically broken into three parts, each consisting of three days. And in the first 30 days, challenges are accepted, then rebuttals are accepted, and then finally the discrepancies are adjudicated. So far, Louisiana and Virginia were ahead of the game, and they completed their challenge processes in 2023. But a lot of states are starting now. So right now, Kansas is wrapping up this weekend and Colorado and Montana, Montana are going to be starting up very soon. Next slide. So now we'll talk about the actual process. There's an alphabet soup of challenge codes that are available, but I've highlighted the ones that are the most relevant to us. So we're going to be going through the availability, speed, latency, business service only, and community anchor institution challenge types. First we're going to go over the availability challenges. These challenges are to prove that a provider does not offer service at all, or does not offer service at the speeds that they advertise.

So, for example, if a provider may claim to offer a service at a location, but when you try and order on the website, it will tell you that the service is actually unavailable. Or they may offer service, but the speeds they offer are below the unserved or underserved speeds of 25/3 or 100/20. There are other types of availability challenges as well, and those include maybe the provider not being able to schedule an install within ten business days, or that wireless signal is not available inside the location for wireless technologies. Those are a little harder to improve. One thing to note is that you're going to need to challenge each provider in your building individually. So for example, if both Verizon and Comcast, both do not offer service that they claim at your property, you're going to need to do two challenges, one for each provider. And we found that the best proof for these challenges are screenshots of the providers website, screenshots of a support chat, or screenshots of a support email that show that the service cannot

be ordered. So here are some examples of proof for availability challenges. Xfinity and Verizon make this really easy. They have really nice web pages that show the address, and that the service is not available at the to order from there, which is really good proof.

But not all providers are going to make it so easy. We've seen some that will not directly tell you that they do not serve your location on their website. Instead, they'll give you kind of a vague message or they will ask you to call. In that case, we recommend always trying to get photographic evidence. So, you know, if you can't find it on their website, try a support chat, or try an email so that you can get a screenshot, which is really good evidence. And if that isn't possible, you can always take notes of your support call and submit those. Next we're going to have the speed and latency challenges. These are a bit more complex, but offer really excellent evidence that the provider is not meeting the service levels that they claim. A speed challenge is a series of measurements that shows the download or upload speeds are under the unserved or underserved speeds of 25, 30, or 120, and a latency challenge is a series of measurements that shows that latency exceeds 100 milliseconds, and in -- both these can be done with a with a speed test app to make it pretty easy for you. We believe that these challenges are especially powerful for cellular and fixed wireless internet providers, due to the fact that these are a shared medium, which means that many users can connect to the same power at the same time, and that can really bring down the speeds.

So sometimes these ISPs might be overstating the speeds that they can offer in reality. And a speed or latency test really allows us to prove that. So the rules for speed and latency challenges are a bit confusing. But stick with me and I'll and I'll break it down for you. So high level. There are three tests over three days that are required. The median or middle value is the one that you're going to use for your challenge. So you can see kind of in the table to the right. The test two is the middle value. And it shows that the speeds that are below 100/20. So that makes this challenge, um, valid for a speed challenge. So you're required to include a lot of specific information with these challenges. So that includes the time and date of the tests, your IP address, which can be shown on the tests. Proof of the speed tier purchased and the name and address of the subscriber. These you can find on your bill. And rest assured that your personal information is not going to be disclosed if you if you upload that. And for the test to be valid, you're going to have to perform the test as close to the Wi-Fi router as you as you possibly can. And ideally, you want to be wired in with an Ethernet cable.

And finally, speed tests must be taken no more than 60 days before the start of the challenge process. The NTIA accepts several speed test applications for this test, and some examples are Ookla's Speedtest.net, the Cloudflare speed test app, Netflix’s Fast.com, and the Measurement Lab website, or M-lab. So I personally find the Ookla, Speedtest.net and Cloudflare apps to be the best because they show your IP address clearly in the test, which is just one less thing for you to record. Next slide. This is an example of a Ookla Speedtest. Note that it clearly shows the download speed, the upload speed and the latency, they call it ping as well, as the public IP address, which you can see kind of be at the bottom under Xfinity. Unfortunately, I was unable to find a speed test app that records the date and time, so you're going to have to record that information manually. Um, and you can see I wrote the time, the name and the address on the side. So you'll need to record something kind of like that. Another piece of evidence that you're going to need is an invoice that shows the speed tier that you're subscribed to. So obviously if

you're doing a -- you're doing a speed test and it's -- you want to show that you're subscribing to -- at least 100/20.

So this is an example of an invoice showing a 300Mbps plan for Verizon. And something like this would be really good proof. And, one really interesting thing that we came across was a speed test app that Illinois is using. So they've partnered with the University of Chicago to create a speed test app that will perform the challenge on users behalfs without even having to register for the challenge process. So how this works is if your test is lower than the unserved or underserved speeds of 25/3 or 100/20, you can put in your email information into the site and it will prompt you to come back three times, but three over three different days, and we'll gather any information that they need from you, and then they will enter. Enter the challenge on your behalf. So it's really worth looking into if your state is doing something similar, as it can make the process much easier for you, and you could even share this out with your residents and they could directly participate. Sometimes you can't order residential directly at a service -- direct residential service -- directly at a building at all. So a common example would be that you can order business internet connection for the building office, but you can't order it service for the residential units. If that's the case, the provider's website is usually going to say something like this is a business address or something similar to that.

And so really, this is pretty much the same thing as an availability challenge. Proof wise, you're just going to need to show a picture of the provider's website, a chat or email showing that only business service is offered at your location. So here's a good example of the Xfinity website showing that you can't order residential service. This page is not quite as nice as the last one I showed you. And so in this one you're going to it doesn't show the address on the resulting page. So I ended up taking two pictures and you can see one picture is of the search and -- the address search. And the second one is of -- this looks like a business address. And so including something like that should be good evidence. And another type of challenge that we think is really relevant to public housing authorities is a community anchor institution or a CAI challenge. And so CAIs are defined as locations that facilitate greater use of broadband service by vulnerable populations. And so we think that public and subsidized housing should fall into this category. The advantage of being classified as a CAI is that CAIs must be served by gigabit symmetrical internet connections, so that's 1000Mbps. Both download and upload. And as Sean mentioned, CAIs are third in line for funding after unserved and underserved locations.

So if your property is already unserved or underserved, or if you're challenging them to make them fall into those categories, we don't think it's worth putting in a CAI challenge. However, if your location is served and they're not challenging that designation at all, we think it's probably worth putting in a CAI challenge for your building. And another thing to note is like, if your building is already classified as a CAI and you have less than a 1000 megabit per second symmetrical connection, you can still enter a challenge. And which is basically just going to be the same kind of thing as an availability challenge, it’s just for CAI. And for CAI challenge, you can include the most relevant evidence showing how your facilitating the use of broadband at your property. So some examples might include pictures from your website showing digital literacy trainings, device giveaways, residents using computer labs or your community Wi-Fi, or any partnerships with any digital equity organizations that you may work with. And now we can look into some actual broadband challenge portals. So this is an example right here of

Louisiana's. Louisiana is using a service called Ready.Net, which we think about half the states are going to be using. So all their portals would look probably pretty similar to this one, the ones that use this. After registering, the portal is going to show you a map where you can check your property status.

So this is going to be the best map that you can use once you get access to it, because this is directly what your state is going to be using. You can also find a button to start a challenge, and you can see that it's kind of on the top right. Which will help you step through the challenge process. And it's a pretty straightforward form here. You're going to be choosing the challenge type. You're going to be entering the address and you're going to be uploading all of your evidence. And once you've entered your challenge, there will be like a challenge dashboard that you can look at and you can kind of track its progress. So we'll say, Tinder review, it's been approved. It’s going to get looked at by someone else. So you can watch it all the way through. Next we're going to have an example of the Virginia portal. So this one is a little bit more bare bones. There's no map included. It's just a simple form where you enter the information for your challenge and you enter things like your proprietor, the challenge type, the technology type. So if it's fiber or copper or DSL or whatever, you enter the address and you enter your evidence and just like the other one, once you've entered the challenge, you can track your progress in this portal.

And one thing that's nice is if you have a lot of challenge to -- a lot of challenges put in, we expect all the broadband portals to accept both challenges in some form. And so this is an example of the Virginia bulk challenge procedure. After formatting, your information is defined in the documentation, you can upload several locations very easily so that you can perform multiple challenges at the same time. And this has been really helpful in our efforts where we've submitted challenges in Louisiana, Virginia and Kansas so far. And there's a special challenge for challenging all the units in apartment buildings called MDU Challenge. So we think this will be really relevant in -- for most public housing. So this challenge type reverses the burden of proof onto the provider, who must prove that they offer connectivity to all units in the MDL. So the MDU challenge process is pretty much the same as we outlined before. But for an MDU challenge, you just need to collect multiple pieces of evidence from multiple units. Unfortunately, it gets a little confusing. We've seen two languages from the NTIA about MDU challenges. So there was a original, more restrictive language, and now there's a new, updated, less restrictive language.

Unfortunately for now, you're going to have to read your state's final version one language to see which is required for your state. So the older language and the more restrictive language requires a minimum of three units or 10% of units, whichever is larger. So if you have 100 units, that's going to mean that you're going to have to have evidence for ten units. The less restrictive language requires a maximum of three units depending on the property size. So if you have 1 through 15 units, then you're going to only need one piece of evidence. If you have 16 through 24 units, you're going to need two pieces of evidence. And if there's more than 25 units, you're going to need three pieces of evidence. And we really recommend submitting more than these minimums just to make sure that you're nice and solid on that. And when you enter a new challenge, it's important to note that all the challenges that you enter have to be of the same type. So, for example, if you're putting in availability challenges, they all have to be availability

challenges. Or if you're doing speed challenges, they all have to be speed challenges. You can't have a mix of types. We also want to introduce the idea of area challenges. Area challenges are triggered if six or more locations using the same provider and technology type within the census block group are challenged.

So this means that -- this means that technology types are counted separately. So if a Verizon Fiber and Verizon Cellular are in the same area, they're actually different, even though they're both Verizon. If an area challenge is triggered, that means that the service provider has to provide evidence for all locations within that census block group. And that makes it a really powerful way to reverse the burden of proof onto the service provider. And if you have six locations that you can challenge with the same in the same census block group with the same provider. I mean, that's great. But it's really important to understand that even if you are not capable of triggering this yourself, your contributions might help to trigger one with -- when combined with those of others. Great. And before I finish up, I just want to reiterate that the challenge process is so important because states are required to connect all locations marked as unserved, underserved, or as CAIs with high speed internet connections. And even regardless of the outcome of the BEAD process, making sure that your property is correctly classified and these maps can qualify you for future opportunities. And so that's why we think this process is so important. And thank you so much for your time. And I'll hand it back over to Joelle.

Joelle Tolifero: Thank you so much, Peter, for that overview. I really appreciate how clearly you've laid out the options available for submitting challenges, and what type of supporting evidence is needed for the most common challenge types. If you have questions, please continue to put them in the Q&A box so that Sean and Peter can address those along the way. Once we jump into Q&A section, and luckily these slides will be shared with everyone so they can be referenced back as you go through the process yourself.

And as Peter mentioned, the main goal of participating in this challenge process is to assure that your building is correctly classified for BEAD funding. Although outside of state and federal funding sources like the BEAD program, there are many Wi-Fi connectivity solutions that could bring broadband to your properties with competition and affordability in mind. I already saw some questions around you know what to do if you're building is older or if you have a bulk plan already put into place, and so we can chat more about that when we get into the Q&A. But just to give you an overview of some of the types of Wi-Fi solutions that you could use, and this is a list, but not an exhaustive list, we have building wide Wi-Fi, which can be classified as the hotel model, where there are access points that residents can log into via passcodes.

Fiber to the unit, which brings fiber -- a fiber connection directly into the unit, rather than one point of access to the building. Neutral wiring, which is another way to increase competition by having a wired connection that is owned by the property owner. And lastly, bulk internet, which is a solution that involves contracting services directly with an ISP. We've seen success in individual property owners, cities, and states taking action to find the best connectivity option for their buildings and municipalities. And we've also worked with these stakeholders as technical consultants to help them launch their own apartment Wi-Fi programs. So if you are wanting to learn more about what option might be best for your property, and we can direct you to the right place, then definitely reach out. Next slide please. The work that each of you are going to do

after this webinar to validate your building status and submit a challenge if you find evidence for it, is essential for closing the digital divide in your communities. While we can work on your behalf to submit challenges and advocate for your connectivity, your voice is a necessary element which can contribute to connecting the 4 million households currently residing in MDUs that are disconnected because of affordability.

And so we've laid out some next steps for you to take to make this happen. First, review your property status. You'll do this on your state map. If your state map is not yet available, you can also check your status on the FCC broadband map. And there are resources linked to this slide. When you get the deck, you'll be able to click directly onto them, so be sure to check out your specific state map once it's ready. Secondly, as I mentioned, we have supported property owners, cities, city programs, and state broadband offices as technical consultants for launching apartment Wi-Fi programs so you can connect with me. If you're looking to learn more about apartment Wi-Fi support or receive some DIY resources. And lastly, for questions related to the challenge process, please reach out to Peter or your state broadband office, which can be found on the NTIA website listed here. Thank you all for your attention and engagement with the BEAD challenge process. We're going to move on to the Q&A portion of our presentation today, so I'll turn it back over to the greater team.

Gardyney Deshommes: Thank you, Joelle, and thank you to the entire team for this timely and informative presentation. We do have one or two questions that have come in the Q&A, so we'll go ahead and take those now. But I do want to encourage everyone to continue using the Q&A box to submit any questions you may have. I also do want to reiterate that you will be able to access the slides and recording, um, in the coming weeks on the HUD exchange. And if you'd like to revisit the resources and information we have presented to you all today, that's exactly where you can access them.

And with that, let's jump right in. I believe I saw a question in the Q&A that asked, how does this work in an older building, around maybe 1970s construction that is not so easy to outfit with new technology, fiber optics? And then a follow up to that is, are there any affordable options for residents that is the case.

Peter Paskowsky: Would you like to take that, Sean? I could.

Sean Gerner: Yeah, I'll jump in. I guess Peter and I can tag team it, but. -- relative to BEAD, cost is really not a factor. If the location is classified as unserved or underserved, then this – you know, the state has a requirement to bring service to that location. There is a high cost threshold we didn't talk about today that states are setting. So if the cost to connect a location exceeds what the state has labeled as their high cost threshold, they're able to look at alternative technology solutions beyond just running fiber to every single one of the units, and it kind of opens it up. But every state's process will be a little bit different in determining kind of what the best solution is to ultimately connect that location.

Gardyney Deshommes: Thank you. Sean. If you guys have any other questions, please enter them into the Q&A box. So far I do see someone asked about funding available -- is funding

available for internet for the Public Housing Authority? And rather, where is the best place to look for that funding?

Sean Gerner: Yeah. So I guess a couple of things. So relative to BEAD is -- the presentation today is about the challenge process and obviously classifying your building correctly. So it would be eligible for BEAD program funding specifically. Two states as Peter mentioned, have already conducted their challenge process. There's a couple of states that are underway right now. Most states will be running that challenge process, you know, Q1 or early 2024. So you want to participate in that process if you can. There are also a lot of other state funding opportunities that are out there right now. You know, it's not we wouldn't be able to list them all on the webinar today. But if you go to your state broadband office's website, kind of go to their grants or different funding opportunities, you'll be able to take a look at what options are available, either in general or specific to kind of public or affordable housing that certain states are offering right now.

Gardyney Deshommes: Perfect. Thank you. Sean. I do see a question coming in that I think we can answer verbally for either Peter or Sean. Would a development of multiple single family public housing units that are separate buildings still be defined as a single MDU in the context of these challenges?

Sean Gerner: Yeah, that's a really great question. And it's a complicated one. So on the FCC's National broadband map, you can see a couple of different variations. But generally speaking, in a kind of a garden style community or in this case where there's single family public housing that's spread out, each of those buildings is classified as its own individual broadband serviceable location. So you would potentially, in those scenarios, want to be challenging, kind of like every one of the BSL's. So in a good example is a garden style community with 100 units that has ten different buildings. On the National broadband Map, that will typically appear as ten broadband serviceable locations, each with ten units creating that full 100 unit property. So, you know, the -- I guess our recommendation would be the more evidence and the more challenges that you can submit tied to each of those BSL's, that's part of the overall kind of bigger picture property, the better likelihood it is that you make your property in general eligible for funding or prioritized by the state.

Gardyney Deshommes: Thank you, Sean. We have some great questions coming in. We have another question. So for MDU, someone responded saying we have pre-wired Xfinity. Very old. Can we use this process to get, or at least attempt to get, fiber installed so that we have an alternative?

Sean Gerner: So yeah, the first thing you'd want to do is go to the National Broadband Map or your state broadband map. If Xfinity is reporting that they offer speeds above 100 by 20, which is classifying that building as served. Then you would want to submit evidence for the minimum number of units required to successfully mount a challenge. So if the infrastructure within that building is not actually supporting 100 by 20, you could address that a couple of different ways, primarily through either an availability challenge or a speed challenge. So an availability challenge is maybe the wiring is so old that Comcast or Xfinity is no longer offering service to certain units, and people are having installation failures or can't order service online. That would

be great evidence in the speed aspect -- so the kind of infrastructure is so old that the speeds that people are actually receiving are not equivalent to the speeds, the marketing speeds that Comcast is able to report on the website, you would want to use the speed test application that the state has established in order to successfully challenge speed. And you could do both of those at the same time. You could successfully, you know, submit availability challenges while also successfully submitting speed challenges to kind of improve your odds of being successful in that challenge process.

Gardyney Deshommes: Awesome. So far we've talked a lot about the importance and impact of BEAD funding. Someone had a question on -- have efforts made an impact in reducing the digital divide? And have you heard any success stories with these efforts?

Sean Gerner: I'm not sure I completely followed that question. In general, is the question saying, or in the context of BEAD?

Gardyney Deshommes: I think in the context of Bede.

Sean Gerner: So what we know is that there are -- don't quote me on this number, but I'm pretty positive I'm saying the right number. We know that there are about 3600 MDUs nationally that have 50 or more units, so 50 or more families living in them that are already classified as unserved or underserved. So those 3600 properties will meet the requirements for BEAD funding and states will have a requirement to bring new internet infrastructure to those buildings, which obviously will help to reduce the digital divide that will take place. Installation and implementation of these funds will take place basically over the next four years. So after the state conducts its challenge process, they have roughly a four year window in terms of implementation to select winning providers and implement the new service that's required.

Gardyney Deshommes: Yep, absolutely. All right. We do have another question. And -- feel free, Peter, to also jump in because it sounds like it could be just kind of an opinion in a sense, but it looks like someone asked, it seems like the BEAD funding is focused on less urban areas that don't have fiber at all, and community organizations that want to bring broadband to a whole geographic area. Is that your understanding of how this funding works?

Peter Paskowsky: Yeah. I can get into that. So that, so I would say that overall -- the focus is on both -- so I think the focus -- I think -- to some people it looks like the digital divide is only happening in rural areas. But we -- we're really focusing on the urban divides. So we're seeing a lot of areas where relatively higher poverty areas that -- where there's not a lot of connectivity. And we see that there's a lot of -- there's a big gap there as well.

Gardyney Deshommes: Thanks, Peter. I do not see any more questions in the Q&A, so I do encourage everyone if you have any other questions, we do have time. Please enter that into the Q&A box. All right. So we do have a question that just came in. This person is in is in Illinois. And they said that they just submitted low results for their for on beadchallenge.org. They asked do I do that two more days and then my MDUs or should they be good to go? The results were 98 –

Peter Paskowsky: Yeah.

Gardyney Deshommes: 74 – oh. Latency 23.

Peter Paskowsky: That's awesome. That's amazing – Nathan, that's awesome. I'm glad you got on it. So to answer your question, I think if you go to the bottom of the page, there's going to be a little sign up area where it will say, oh hey, you -- you're under the speed levels. So do you want to sign up? Sign up there, and then it will send you some emails and will prompt you for the next few times. And I would recommend you tell all your friends and family and have them do this as well, all over Illinois, because it'll be a really good help. So --

Gardyney Deshommes: Awesome. So we have another question. So this person is looking at Washington state timeline and it says, challenge process is only two months. So will there be moufos [ph] for agencies or someone to provide funding to do this research?

Sean Gerner: Not that we are aware of, which I guess is why we're having the webinar today to try to empower as many people as possible to take place and participate in the challenge process. I mentioned it briefly in one of my slides, but EducationSuperHighway is doing kind of some desktop assessment research for roughly 100,000 MDU locations nationally. But it's all kind of web based scraping and calling into the service providers. You know, we don't have boots on the ground and we don't have, like firsthand knowledge of that property. So that's where public housing authorities are really empowered to understand kind of their property the best, empower their residents and get the word out to residents to participate in speed test challenges, or if they had failures ordering service from a local service provider. I personally -- I don't know of any funding opportunities that exist to hire a third party or subcontract out this work to aid you in participating in the process.

Gardyney Deshommes: Someone asked, there PHA received a Choice Neighborhoods Planning Grant and they asked how can they integrate BEAD with this grant?

Sean Gerner: I think I can confidently say for the team, we don't know enough about the Choice Neighborhoods Planning Grant to answer that on the call. So if Millistein [ph] wants to reach out to us directly, just our first name at EducationSuperHighway.org, any one of the three of us, Sean, Joelle or Peter. And we'll be glad to have kind of a one off conversation and find out.

Gardyney Deshommes: Yep. Sounds good. All right. We had a question. Just come in from Heather. How does speed play into the ACP program, which seems to provide lower speed to keep costs low?

Sean Gerner: That's probably a long and complicated question, and maybe a whole nother, series of slides, but the short story here is that every state has to define what low cost and affordable broadband means to them. So my recommendation would be to go to your state broadband's website, download initial proposal volume two of BEAD and just do, like, a control find for low cost and affordable. And most states I would say, or the bulk of them are defining it as $30. So a, you know, 100 by 20 plan available for $30, which could be combined with ACP, making it net free or $0 cost is how a lot of states have defined low cost and affordable, but not every state has

followed that same pathway. Some states have not defined affordable or low cost at all, and others may have set a higher threshold or given service providers the opportunity to submit narrative language along with their applications, with why they need to charge more than that $30 or some kind of pre -- preset rate in order to apply for the fund. So take a look at your individual state so you have a better understanding of that definition.

Gardyney Deshommes: Great. Thanks, Sean. There is a question that just came in. This person said, in the last year, I coordinated fiber being ran to all of our six team locations, including our high rises. So fiber is now accessible to them through their provider of choice. They said that they're also performing a pilot for individual 5G hotspots at a cost even more reduced than the state broadband low cost mount. And they said since they've already met the target, is there anything that they need to do or responsibilities they have to support HUD?

Sean Gerner: I would say no other than go teach a bunch of other people how to do exactly what you did. And if we could, if we could duplicate that everywhere, that would be phenomenal. So thank you so much.

Gardyney Deshommes: While we still wait for questions, Peter and Sean, can you speak to the two points that states are not required to connect CAIs, as well SEAs [ph] must have the ability to subscribe to gigabyte, not actually subscribe to it. Can you speak a little more on those points?

Peter Paskowsky: Right. So what we were talking about before is the order in which the money is spent. So the money -- so for example, if a state -- they have a certain amount of money, if they have -- if they run out of money, they theoretically might prioritize things. Right. So the prioritization would be first unserved, which is under 25/3 then underserved, which is under 100/20. Then after that, it would be CAIs. So if there is a building that, does not have the ability to be connected to one GB symmetrical, then they would have to pay money to -- they would have to pay money to make that kind of connection available. So it's not about if you actually subscribe to it, it's about if -- that you must have the ability to subscribe to it. That answers your questions.

Gardyney Deshommes: Yeah. Thanks, Peter. We did have a question come in. Says, once this internet program is set in place and up and running, is there a monthly fee for the service and who would be responsible for those payments?

Peter Paskowsky: Yeah. So really what this is about is about making sure that the connectivity comes to the DSL. So this will be -- what this is about is about -- paying -- the BEAD funding is for paying ISPs to do the physical work of, you know, digging trenches, putting cables in the ground, buying network equipment and getting that all the way to your building. After that, then it will be just normal retail providers. So whatever -- and that's going to be based on the state. So -- does that make sense?

Gardyney Deshommes: Yeah. Thanks, Peter. All right. I'm just going to wait around for any more last minute questions. This -- the question came in. I think what this person needs -- well, let me just ask the question. It says, what this challenge low income housing participants devices.

So we know you spoke about units not being seen in the map, but is there any connection to the devices being impacted by the challenges?

Sean Gerner: I'm not sure I understand that question.

Peter Paskowsky: Yes. I think if you're if you're doing an MDU challenge, which you're -- you're doing is -- it's not really about the device. It's about the internet connection that comes in. So, you're just using a device to perform the test, but you're not really testing the device itself. You're testing the internet connection that comes in and out. So, in an MDU challenge, you're going to be doing that one per you're -- going to be doing that in multiple units -- in multiple units' internet connections, if you're doing that kind of test. So, I hope that answers your question.

Gardyney Deshommes: That looks like it's a follow up to that question there. So they're wondering if the program, as you said, Peter. Yes, it's -- they asked, is it just for infrastructure installation. So making internet available.

Peter Paskowsky: Right. So I guess, yeah, high level -- the BEAD funding will pay the providers to get the cables to your building to offer service. And then inside the -- their BEAD language there's a provision for affordability and that depends on the state. So they're saying basically, if we're giving you service provider money to install this infrastructure, you must provide affordable connectivity. And how the states define that is different. So I think that maybe that answers your question about the price. But -- there's multiple ways that service could be provided inside of an MDU. And the easiest way is what we would call retail service, which is, every person has their own modem, their own networking equipment in their house, and they're individually paying for their own subscription. In that case, you would just -- you would be -- the price would be based on what the -- what was outlined in that BEAD volume one for your state. Or maybe volume two, for your state, which says how much money you -- they can charge for the service.

Sean Gerner: You know, I'll take one thing on to that, too. There's also -- for the low cost aspect of BEAD, there's some affordability provisions in there relative to installation. So let's say just as an example, a state set the low cost threshold, which would apply to most residents of public housing, at $30. What most states have done in their BEAD plans is say that that $30 has to be all inclusive of taxes and fees and installations and equipment. So there's no, you know, bait and switch. When somebody goes to order service, it's $30 and then there's $100 for installation, and then there's $50 a month to rent stuff. Most states have said that $30 means $30. That's what somebody will actually be billed.

Gardyney Deshommes: All right. Are there any more questions? If so, please enter them into the Q&A box. I did want to add that slides for today's presentations will be available in the coming weeks on the HUD exchange.

Joelle Tolifero: Just one additional point of clarification regarding CAIs. Definitely seek to understand what your state's guidelines are, as CAIs are -- they don't need to be served specifically, but each state will make a determination in regards to how they'll serve them. And I

know Peter spoke to the level of prioritization, but just wanted to give that guidance from our colleagues from NTIA.

Gardyney Deshommes: Thank you, Joelle. If there are no more questions, again, if they come to pop up, we can start wrapping up. Again, thank you. For those who -- or thank you to those who did submit their questions during this segment of the webinar. Again, if you have any other questions, please feel free to reach out to our presenters using the contact information that they've provided. We do deeply value your time and participation in this space. If no one has any last minute comments or clarification, I can hand it off to Sara to wrap us up.

Sara Arman: Thank you, Gardyney, and thank you again, Sean, Joelle, and Peter for the comprehensive overview of the BEAD program and challenge process. That was so incredibly informative and we are so grateful and appreciative of your work. So thank you all. Before we sign off, I did want to make a quick and exciting announcement. Next slide please. We are currently accepting applications to join ConnectHomeUSA, so if you're interested in expanding your work on digital inclusion or want to learn more about what ConnectHomeUSA is, we will be hosting another webinar tomorrow, January 11th from 1 to 2 p.m. Eastern time. At this webinar, we will be giving an overview of the application process and answer any questions about applying to Connect Home. You can register at this connect um at this QR code. And my colleague also put the link in the chat. So thank you so much Dina for doing that. All are welcome to join us and we really hope to see you there. Thank you once again to our terrific panelists, and thank you so much to all of our attendees. We are really grateful to you all and your commitment to digital inclusion. Thank you and have a wonderful rest of your day.

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