FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Shelley Moore Capito
United States Senate
172 Russell Senate Office Building
Washington, DC 20510

Dear Senator Capito:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

On September 12, 2022, the Commission opened a process for governmental entities, broadband service providers, and other entities to begin submitting challenges for multiple broadband-serviceable locations (i.e., "bulk" Fabric challenges). The Commission held a webinar on September 7, 2022 to assist bulk Fabric challengers on how to submit their challenge data and hosted a follow-up workshop on September 28, 2022 to further assist entities with preparing such challenges. Commission staff also published an FAQ document, multiple articles, and other resources on its BDC Help Center (https://help.bdc.fcc.gov/) to provide

technical assistance to potential bulk Fabric challengers. The BDC Help Center also posted a link to enable stakeholders to submit questions or requests for assistance with the challenge process.

More than 20 states submitted bulk challenges to Version 1 of the Fabric, as did many internet service providers. For example, 22 states or other governmental entities submitted 1,114,100 individual challenges to the Fabric data that were processed in anticipation of preparation of Version 2 of the Fabric. These challenges were predominately challenges to add missing locations but included challenges to correct information associated with existing locations as well. These challenges sought corrections for records corresponding to less than 1% of the total number of locations identified in Version 1 of the Fabric. Of these 1.11 million challenges, more than half were for locations that were either already included in Version 1 of the Fabric or that CostQuest, the vendor selected to develop the Fabric in accord with the Broadband DATA Act, had independently identified through its own efforts for inclusion in Version 2 of the Fabric.

We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

Following the release of Version 2 of the Fabric, the Commission opened the second BDC filing period, reporting broadband availability as of December 31, 2022, on January 3, 2023. Consistent with our statutory mandate in the Broadband DATA Act, 47 U.S.C. § 642(a)(1)(A), and as implemented under the Commission's rules, broadband providers are required to file data biannually—data as of June 30th is due no later than the following September 1st, and data as of December 31st is due no later than the following March 1st each year. Broadband providers are required to file their broadband availability data based on the latest version of the Fabric, and availability data is overlaid onto the current dataset of Fabric locations in order to create the next iteration of the National Broadband Map.

Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

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Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

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I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

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Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable John Thune
United States Senate
511 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Thune:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Tammy Baldwin
United States Senate
709 Hart Senate Office Building
Washington, DC 20510

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In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

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Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable John Barrasso
United States Senate
307 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Barrasso:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Michael Bennet
United States Senate
261 Russell Senate Office Building
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We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Sherrod Brown
United States Senate
503 Hart Senate Office Building
Washington, DC 20510

Dear Senator Brown:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Benjamin L. Cardin
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We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Catherine Cortez Masto
United States Senate
516 Hart Senate Office Building
Washington, DC 20510

Dear Senator Cortez Masto:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

Following the release of Version 2 of the Fabric, the Commission opened the second BDC filing period, reporting broadband availability as of December 31, 2022, on January 3, 2023. Consistent with our statutory mandate in the Broadband DATA Act, 47 U.S.C. § 642(a)(1)(A), and as implemented under the Commission's rules, broadband providers are required to file data biannually—data as of June 30th is due no later than the following September 1st, and data as of December 31st is due no later than the following March 1st each year. Broadband providers are required to file their broadband availability data based on the latest version of the Fabric, and availability data is overlaid onto the current dataset of Fabric locations in order to create the next iteration of the National Broadband Map.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Michael D. Crapo
United States Senate
239 Dirksen Senate Office Building
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It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

Jessica Rosenworcel

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Tammy Duckworth
United States Senate
524 Hart Senate Office Building
Washington, DC 20510

Dear Senator Duckworth:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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More than 20 states submitted bulk challenges to Version 1 of the Fabric, as did many internet service providers. For example, 22 states or other governmental entities submitted 1,114,100 individual challenges to the Fabric data that were processed in anticipation of preparation of Version 2 of the Fabric. These challenges were predominately challenges to add missing locations but included challenges to correct information associated with existing locations as well. These challenges sought corrections for records corresponding to less than 1% of the total number of locations identified in Version 1 of the Fabric. Of these 1.11 million challenges, more than half were for locations that were either already included in Version 1 of the Fabric or that CostQuest, the vendor selected to develop the Fabric in accord with the Broadband DATA Act, had independently identified through its own efforts for inclusion in Version 2 of the Fabric.

We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

Following the release of Version 2 of the Fabric, the Commission opened the second BDC filing period, reporting broadband availability as of December 31, 2022, on January 3, 2023. Consistent with our statutory mandate in the Broadband DATA Act, 47 U.S.C. § 642(a)(1)(A), and as implemented under the Commission's rules, broadband providers are required to file data biannually—data as of June 30th is due no later than the following September 1st, and data as of December 31st is due no later than the following March 1st each year. Broadband providers are required to file their broadband availability data based on the latest version of the Fabric, and availability data is overlaid onto the current dataset of Fabric locations in order to create the next iteration of the National Broadband Map.

Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Richard J. Durbin
United States Senate
711 Hart Senate Office Building
Washington, DC 20510

Dear Senator Durbin:

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Sincerely,

Jessica Rosenworcel

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Joni Ernst
United States Senate
730 Hart Senate Office Building
Washington, DC 20510

Dear Senator Ernst:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

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We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

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I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

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Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Dianne Feinstein
United States Senate
331 Hart Senate Office Building
Washington, DC 20510

Dear Senator Feinstein:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Charles E. Grassley
United States Senate
135 Hart Senate Office Building
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I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

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Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Cynthia M. Lummis
United States Senate
G12 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Lummis:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Roger Marshall
United States Senate
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We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Jerry Moran
United States Senate
521 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Moran:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

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I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Kyrsten Sinema
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I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Dan Sullivan
United States Senate
302 Hart Senate Office Building
Washington, DC 20510

Dear Senator Sullivan:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

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I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Joe Manchin
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I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

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FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Robert Menendez
United States Senate
528 Hart Senate Office Building
Washington, DC 20510

Dear Senator Menendez:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

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We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

Following the release of Version 2 of the Fabric, the Commission opened the second BDC filing period, reporting broadband availability as of December 31, 2022, on January 3, 2023. Consistent with our statutory mandate in the Broadband DATA Act, 47 U.S.C. § 642(a)(1)(A), and as implemented under the Commission's rules, broadband providers are required to file data biannually—data as of June 30th is due no later than the following September 1st, and data as of December 31st is due no later than the following March 1st each year. Broadband providers are required to file their broadband availability data based on the latest version of the Fabric, and availability data is overlaid onto the current dataset of Fabric locations in order to create the next iteration of the National Broadband Map.

Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

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WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

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OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Jon Tester
United States Senate
311 Hart Senate Office Building
Washington, DC 20510

Dear Senator Tester:

Thank you for your letter regarding the work to develop an iterative National Broadband Map at the Federal Communications Commission. Today, broadband service is vital for school, work, healthcare, and more. Connecting everyone to high-speed service is essential for everyone, everywhere to have the opportunities made possible by the digital age. That is why I share your commitment to making sure that broadband connectivity is available across the country.

As Congress recognized with the passage of the Broadband DATA Act, in order to connect everyone, everywhere, we need to develop accurate information about where broadband service is and is not available across the country. With better data, we can more precisely target our policymaking efforts and financial resources, including the Commission's universal service funding system and the grant projects in the Bipartisan Infrastructure Law, to areas where support is needed most. Better data will also help other federal agencies, state and local governments, and Tribal entities target their own broadband mapping and deployment efforts.

Since the passage of the Broadband DATA Act in March 2020, the Commission has worked hard to implement the requirements of the law and to begin the iterative data collection and challenge processes envisioned by the Act through the creation of its Broadband Data Collection (BDC) program.

The BDC is a real departure from the Commission's previous Form 477 process for identifying the state of broadband deployment. The Form 477 process, which was used by the agency in various formats for decades, collected data only at the census-block level. If there was a single subscriber in the census block, the agency assumed service was available throughout. As a result, the Form 477 process systematically overstated the presence of broadband, particularly in rural areas. In addition, this process lacked a mechanism to verify that data based on the on-the-ground experience of consumers and other stakeholders.

This is no longer the case. As required by the Broadband DATA Act, the Commission has built an entirely new data-collection system for ingesting, validating, and aggregating both provider data for download and publication on the National Broadband Map. This system is also designed to incorporate data submitted by individual consumers and by State and Tribal governments and other stakeholders challenging a provider's availability submissions at

particular locations. In addition, the Broadband DATA Act required the Commission to develop the Broadband Serviceable Location Fabric (Fabric). The Fabric is a common dataset of all broadband serviceable locations (BSLs) in the United States where mass market fixed broadband internet access service is available or could be installed. The Fabric dataset underpins location-by-location reporting of available fixed broadband services by internet service providers. To be clear, the Fabric itself is not a map. It is an evolving database of all BSLs nationwide that is used in the production of the map when combined with information from service providers and data from the challenge process.

On November 18, 2022, the Commission released a pre-production draft of its new National Broadband Map depicting broadband availability, as of June 30, 2022, from over 2,500 facilities-based providers of fixed and mobile mass-market broadband Internet access services. The release of the pre-production draft of the map was a major milestone in the development of what will be the most accurate and granular dataset of internet availability across the United States to date. However, as you acknowledged, the Broadband DATA Act envisions the Commission's BDC efforts to be an iterative process through which the map evolves as the facts on the ground change and incorporates improvements and refinements that are a result of the ongoing challenge and crowdsource processes.

I appreciate your sharing the concerns you have heard regarding the accuracy of both the location data and availability data shown on the National Broadband Map. To the extent you have specific information or examples of perceived errors in the data, I would be happy to work with your office to discuss and, where appropriate, rectify any errors or omissions in the map. In the interim, I can share some additional information in response to the points raised in your letter.

The Fabric is an evolving dataset and substantial improvements have been made to it since its first pre-production release. It is the product of integrating a wide range of data sources, including, address records, information about parcel boundaries, tax assessment records, imagery and building footprint data, Census data, land use records, and geo-spatial road and street data. In fact, to build the Fabric more than 200 data attributes are assessed using artificial intelligence and machine learning to identify the precise geocoordinates of each BSL included in the dataset The first version of the Fabric, which we released on June 23, 2022, in advance of the June 30, 2022, opening of the inaugural BDC filing window, contained more than 113.2 million BSL records. I also personally reached out to broadband leaders in all fifty states and U.S. territories during the summer to encourage them to review the Fabric and, if needed, to plan to file Fabric challenges as early as possible after the opening of the challenge window in September.

On September 12, 2022, the Commission opened a process for governmental entities, broadband service providers, and other entities to begin submitting challenges for multiple broadband-serviceable locations (i.e., "bulk" Fabric challenges). The Commission held a webinar on September 7, 2022 to assist bulk Fabric challengers on how to submit their challenge data and hosted a follow-up workshop on September 28, 2022 to further assist entities with preparing such challenges. Commission staff also published an FAQ document, multiple articles, and other resources on its BDC Help Center (https://help.bdc.fcc.gov/) to provide

technical assistance to potential bulk Fabric challengers. The BDC Help Center also posted a link to enable stakeholders to submit questions or requests for assistance with the challenge process.

More than 20 states submitted bulk challenges to Version 1 of the Fabric, as did many internet service providers. For example, 22 states or other governmental entities submitted 1,114,100 individual challenges to the Fabric data that were processed in anticipation of preparation of Version 2 of the Fabric. These challenges were predominately challenges to add missing locations but included challenges to correct information associated with existing locations as well. These challenges sought corrections for records corresponding to less than 1% of the total number of locations identified in Version 1 of the Fabric. Of these 1.11 million challenges, more than half were for locations that were either already included in Version 1 of the Fabric or that CostQuest, the vendor selected to develop the Fabric in accord with the Broadband DATA Act, had independently identified through its own efforts for inclusion in Version 2 of the Fabric.

We also have acknowledged that there were a few discrete instances where these data in Version 1 of the Fabric did not meet our expectations. The known instances correspond to areas in the United States where the underlying datasets used to create the Fabric, including parcel data, tax assessor data, and high-resolution imagery data, were either outdated or simply not available. To improve the dataset in these areas, the Commission, working with CostQuest, has invested significant resources since the release of Version 1 of the Fabric, including manual review above and beyond the baseline methodology used to identify additional BSLs in these areas.

Meaningful changes have been made to the Fabric as a result of these efforts. For example, in the State of Alaska, Version 1 of the Fabric identified 216,766 BSLs, whereas Version 2 sent to license holders on December 30, 2022 for use in the data to be collected as of December 31, 2022 identifies 262,453 BSLs (or a 21% increase). Similarly, the number of BSLs in Mineral County, Nevada (which includes part of the Walker River Tribal Lands) increased 17.9% from Version 1 of the Fabric to Version 2. We believe Version 2 of the dataset, which reflects changes like these, will address most, if not all, of the outstanding concerns. On top of that, any remaining issues will continue to be addressed through our continued efforts to improve and refine the data in future versions of the Fabric in addition to the challenge process that is an integral part of our BDC endeavor.

In addition to the bulk Fabric challenge process, we created a consumer-friendly process for the submission of individual location challenges. Any individual may file a Fabric challenge directly through the National Broadband Map interface simply by clicking on the map at their location and filling out a short web form. To assist with the process, we have made available a step-by-step "how to" article, a short video, as well as a number of outreach materials that our partners may use to help educate consumers on how to engage with the Commission's map. This process and associated resources make it relatively simple for consumers to seek corrections or adjustments to the location information included in the Fabric.

Version 2 of the Fabric is currently available to states, governmental entities and all Fabric license holders. This iterative update to the Fabric includes 1.04 million more locations than the version currently shown on the National Broadband Map. Version 2 also incorporates millions of adjustments to the data associated with locations that were already included in the first version of the Fabric, including, for example, changes to address fields, unit counts, secondary addresses, BSL status, building and land use codes, etc. Location challenges from state governments led to nearly 122,000 of the new location additions. However, the majority of location additions and other adjustments were a result of CostQuest's ongoing efforts to update and improve the Fabric by refining the models and processes for creating the Fabric and using updated and improved input data sources such as new and more granular parcel data. These ongoing efforts to improve the Fabric outside of the challenge process will continue and remain an important tool for the improvement of the National Broadband Map.

I encourage all stakeholders, especially state broadband offices to review Version 2 of the Fabric. In addition to the existing resources available to inform stakeholders on how to view and interact with the Fabric, the Broadband Data Task Force stands ready to continue to work with states and other stakeholders to help them use the best tools and methods for mapping the Fabric data and corresponding information on BSLs with other datasets that stakeholders have on locations where broadband service is needed. I recognize that not every state and territory collects their own data in the same way that we are amassing it for this national effort, but we are ready, willing and able to work with them to align our efforts.

Following the release of Version 2 of the Fabric, the Commission opened the second BDC filing period, reporting broadband availability as of December 31, 2022, on January 3, 2023. Consistent with our statutory mandate in the Broadband DATA Act, 47 U.S.C. § 642(a)(1)(A), and as implemented under the Commission's rules, broadband providers are required to file data biannually—data as of June 30th is due no later than the following September 1st, and data as of December 31st is due no later than the following March 1st each year. Broadband providers are required to file their broadband availability data based on the latest version of the Fabric, and availability data is overlaid onto the current dataset of Fabric locations in order to create the next iteration of the National Broadband Map.

Consistent with the Broadband DATA Act, the Fabric is updated continually. As explained above, the Commission's vendor CostQuest is always working to improve the Fabric through the use of new and updated data sources. For this reason, the FCC accepts Fabric location challenges on a rolling basis. They can be filed at any time, we will review them no matter when they come to the agency. However, it is important to understand that while the FCC and CostQuest are at work improving the Fabric at all times, the updates to this dataset are, under the law, only combined with the BDC collection twice a year. This combination of the current Fabric with BDC is what produces the National Broadband Map, because it features both the BSLs and information about service available at each location. This is consistent with the Broadband DATA Act, which states that the Fabric shall "serve as the foundation upon which all data relating to the availability of fixed broadband internet access service collected…shall be reported and overlaid." 47 U.S.C. § 642(b)(1)(B)(ii). Updating the map, with respect to location data, outside of the biannual cadence established in the law, would create anomalies in the data

because the map would contain locations that have no broadband availability data (positive or negative) on the map. In fact, under the law, providers would be under no obligation to report availability data for these new locations until the next reporting period.

We have taken several steps to prevent systematic overreporting of coverage by broadband service providers. First, the FCC engaged with the provider community extensively during the inaugural filing window, offering unprecedented hands-on assistance and support resources to help in the preparation and submission of their data. Second, and as noted earlier, the Commission built an entirely new data collection system for purposes of the BDC. The new system was designed with several built-in automated data checks which report, in real time, both "hard" errors that prevent the upload and certification of data as well as "soft" warnings that suggest there may be an issue with a provider's data. For example, the system uses subscription data reported by service providers as a cross-check against the provider's availability data and produces errors in certain situations where these data do not align as expected. The built-in checks and verifications will continue as an ongoing part of the BDC. Third, once the inaugural filing window closed, the FCC began processing and reviewing these data for anomalies, patterns, and other identifiable errors. Finally, we expect as a more general matter that the availability of a challenge process mandated by the Broadband DATA Act and implemented in the BDC serves as a deterrent to overreporting, particularly given that providers will have to expend time and resources to respond to challenges. We recognize also, that as providers gain familiarity with this system, efforts to intentionally misstate service may be subject to enforcement action. In fact, we already have an investigation underway.

In the context of fixed broadband availability reporting, service is considered to be "available" if the provider has an existing connection at that location, or the provider could (and is willing to) connect that location to service within 10 business days for a standard installation fee. Availability is reported by technology type and the maximum advertised speed at each location. Based upon these guidelines, fixed broadband service providers should not report their service being available where: (1) an individual has attempted to request service but the provider cannot deliver the service within 10 business days: or (2) in the case of a satellite or terrestrial fixed wireless provider, a provider's signals cannot in fact be received at the location. Should a provider claim that it can make service available to a location under either of these circumstances, that information can be challenged using either the map interface or via a bulk availability challenge. Furthermore, any availability challenges that are upheld will be persistent and will carry into future iterations of the map, unless and until the provider demonstrates some changed circumstances that would substantiate reporting availability at that location, like the deployment of new infrastructure.

I agree, as you suggest, that testing data, like as fixed speed test results, can offer important information about the quality of service and network performance at a location. As such, these data are accepted in the BDC as crowdsource data and may be used to inform the Commission's verification efforts under the Broadband DATA Act. These data may also help inform Commission audits of provider data, which are also required under the Broadband DATA Act. Finally, when submitted by consumers this data will also form the basis of an informal consumer complaint that we will serve on the provider.

It is more important than ever for us to know where broadband is, and is not, available throughout the nation. Far too many households remain unconnected, and accurately showing where they are located is an important part of directing funding into the communities that need it the most. The map we have is a work that is always in progress, just as Congress designed it to be in the Broadband DATA Act. I am confident that the BDC process we have established will help improve the map just as Congress envisioned. I also will continue to ensure that the Broadband Data Task Force makes itself available to all stakeholders interested in offering challenges to the current iteration of our data.

I hope the above is helpful. Please let me know if you have any further questions. I look forward to continuing to work with you to help close the digital divide.

Sincerely,

Jessica Rosenworcel

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

OFFICE OF THE
CHAIRWOMAN

February 3, 2023

The Honorable Todd Young
United States Senate
185 Dirksen Senate Office Building
Washington, DC 20510

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