

### **Connect America Fund Goals**

- Preserve and advance universal availability of voice service
- Drive universal availability of modern networks capable of providing voice and broadband service to homes, businesses and community anchor institutions
- Drive universal availability of modern networks capable of providing advanced mobile voice and broadband service
- Ensure that rates for broadband and voice services are reasonably comparable in all regions of the nation
- Contain administrative costs and minimize the universal service contribution for consumers and businesses through efficient, effective program management

### **Connect America Fund Compliance**

USAC closely monitors carrier compliance with broadband deployment obligations to safeguard the accountability, transparency and integrity of the Connect America Fund.

Compliance process consists of three steps:

**HUBB Portal: Tracking Broadband Deployment** 

**Verification Reviews: Confirming Broadband Deployment** 

**Network Performance Testing: Measuring Speed and Latency** 

### **HUBB Portal: Tracking Broadband Deployment**

- A system that collects the geographic coordinates (latitude and longitude) of locations
  where carriers are deploying broadband using CAF support, the broadband speeds available
  at those locations (speed tier) and deployment dates
- Tool for collecting location-specific service availability data from carriers across all Connect America Fund (modernized) programs millions of individual records
- Performs automated, real-time <u>validation</u> of data submissions and will only accept locations that pass all validations
  - Checks that lat/long of a reported location fall within area eligible for funding
  - Checks that the location is not a duplicate of one already submitted
  - Checks that date of deployment falls within fund timeline
- Tracks carrier progress toward meeting deployment obligations, including interim milestones
- Annual HUBB filing deadline is in March for carriers to report broadband deployed with CAF support in the prior calendar year or certify "no locations to upload"

### Verification Reviews: Confirming Broadband Deployment

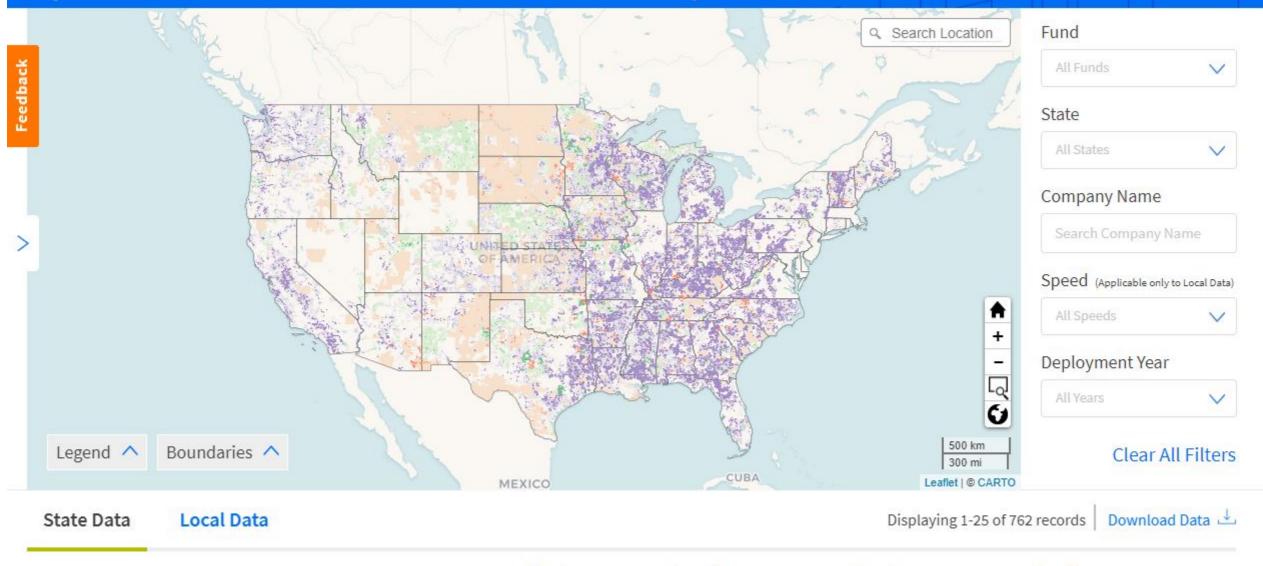
- Serves as a starting point for <u>verification</u> reviews to confirm broadband deployment to a random sample of locations reported in the HUBB by carriers
- All carriers participating in CAF programs with deployment milestone obligations are subject to verification reviews to confirm that:
  - The structure at the reported location is eligible for CAF support
  - The reported service address accurately corresponds with the reported lat/long coordinates
  - The upload and download speeds available are at or above the speeds the carrier must deliver
  - The carrier deployed service at the required speeds in time to meet the deployment milestone
  - The actual number of units or dwellings at the location accurately ties back to the reported number of units or dwellings for the location record
  - Carriers will be asked to supply documentation that can serve as evidence of deployment to all locations selected for verification review
    - Examples of acceptable documentation include: customer bills, screen shots from service availability and provisioning tools, letters of certification by outside engineers

### **Network Performance Testing: Measuring Speed and Latency**

- Serves as a starting point for Performance Measures testing framework to ensure that CAFfunded broadband service meets basic speed and latency standards
  - Requires carriers to conduct quarterly speed and latency testing at a USAC-selected random sample of CAF-supported locations reported in the HUBB that have active subscribers and report the results to USAC as part of the annual compliance process
- At least 80 percent of speed measurements must be at 80 percent of required speeds and 95 percent of low-latency measurements must fall at or below 100 milliseconds round-trip time
  - FCC will consider failure to meet speed and latency requirements as a failure to deploy and may withhold support
- Carriers are subject to a year of "pre-testing" before official testing begins
  - Carriers must quarterly testing and report the results to USAC within one week of the end of the quarter, but will not face withholding of support for failing to meet speed and latency standards as long as they submit and certify required test data
- Windows to start testing vary by fund and began in 2020 with CAF Phase II Model carriers

### **Connect America Fund Broadband Map**











**Total Support** Disbursed



### **HUBB Filing Obligations by Fund**

#### Carriers in these funds have until March 1, 2022 to file data for all locations deployed in 2021:

- Connect America Fund (CAF) Phase II Model
- Alternative Connect America Cost Model (A-CAM) and Revised ACAM
- ACAM II
- Connect America Fund-Broadband Loop Support (CAF BLS)
- Rural Broadband Experiments (RBE)
- Alaska Plan (other than carriers with individualized performance plans that only require them to maintain service at existing levels)
- Connect America Fund (CAF) Phase II Auction
- Rural Digital Opportunity Fund (RDOF) only RDOF carriers authorized for support by the FCC in <u>DA 21-1158</u> and <u>DA 21-1287</u>

### **HUBB Filing Obligations**

- All CAF BLS carriers are now subject to HUBB reporting obligations
  - This includes CAF BLS carriers that were exempt from filing in the HUBB in the past because they had already built out 10/1 Mbps broadband to at least 80 percent of their study area
  - The HUBB will not accept any locations deployed before May 25, 2016
    - CAF BLS carriers that were fully deployed to all locations in their study area with 25/3 Mbps broadband before that date, or become fully deployed, have satisfied their buildout obligation
    - USAC and the FCC will develop a process for these carriers to certify to full deployment. Fully
      deployed carriers should not file any locations built before May 25, 2016 in the HUBB, but
      still need file any locations deployed in 2021 or certify "no locations to upload."
- RDOF carriers must submit any locations deployed since July 1, 2019.
  - The HUBB is not yet ready to accept RDOF locations. USAC will notify RDOF carriers when the HUBB
    is open for them to submit and certify deployment data.
  - Only the RDOF carriers authorized for support by the FCC in <u>DA 21-1158</u> and <u>DA 21-1287</u> must file deployment data in the HUBB by March 1, 2022.

### **HUBB Filing Obligations**

- Data collected by the HUBB
  - Study Area Code (SAC)
  - Latitude and longitude coordinates
  - Date of deployment
  - Speed tier
  - Address
  - Number of units
  - Carrier location ID (optional)
  - Broadband technology (mandatory for CAF II Auction and RDOF carriers and optional for carriers in other funds)
  - Latency (mandatory for CAF II Auction, Alaska Plan and RDOF carriers)

### **HUBB Filing Obligations**

- Accurate geolocation data is the key to filing successfully with the HUBB
  - See the USAC <u>Geolocations Methods Guide</u> for an overview of different methods for collecting accurate latitude and longitude coordinates
- Carriers that did not deploy any locations in 2021 must still log into the HUBB and certify "no locations to upload" by March 1, 2022
- Carriers with 2021 deployment milestones including Original ACAM and Revised ACAM and Alaska Plan carriers - must also complete a <u>separate milestone certification</u> as part of the annual HUBB filing
  - Carriers may face verification reviews of their 2021 milestones following the March 1, 2022 filing deadline to confirm deployment to a random sample of reported locations
  - Carriers found to have missed deployment milestones face increased reporting obligations and potential loss of support
  - Carriers that miss a deployment milestone must inform the FCC, USAC and relevant state and Tribal governments within 10 days of the milestone deadline

### **Deployment Milestones by Fund**

- CAF II Model carriers faced 100 percent deployment milestone as of the end of 2020
  - CAF II Model carriers that missed this final milestone had a 12-month cure period lasting through year-end 2021 - to close any remaining compliance gaps
- Original and Revised ACAM carriers face a 50 percent milestone for deploying 10/1 Mbps broadband as of the end of 2021
- Alaska Plan carriers face five-year milestone as of the end of 2021
  - USAC will notify carriers when the HUBB is ready to accept this certification.
- ACAM II and CAF II Auction carriers face their first deployment milestone (for 40 percent of required deployments) as of the end of 2022
  - CAF II Auction carriers can take advantage of an optional 20 percent milestone as of the end of 2021 to reduce Letter of Credit (LOC) obligations
- CAF BLS carriers face just one final milestone (for deploying 25/3 Mbps broadband service) as of the end of 2023
- RBE carriers face rolling deployment milestones

### **HUBB Data Filing Process**

Compile Enter Validate Certify Certify Data Data Milestone

Use templates to compile location data, using Geolocation best practices

Upload template with location data to the HUBB

Location data
validated by
HUBB – address
any errors or
warnings

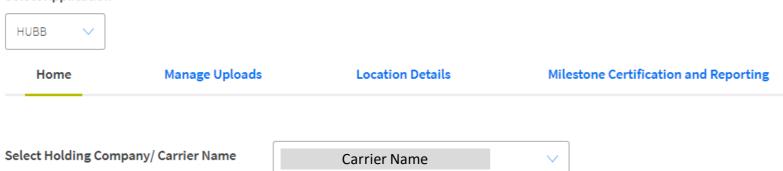
Certifying Officer certifies location data in the HUBB

Certifying Officer certifies milestone in the HUBB (if applicable)



#### **Select Application**

**Progress for** 

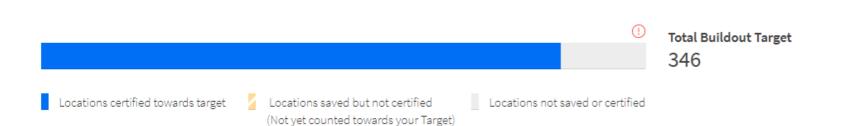


#### Carrier Name

Carrier Name

### **Deployment Information**





Select Holding Company/ Carrier Name Carrier Name For ACAMII Carriers **Carrier Name** Additional drop down to separate Total and **Deployment Information Tribal locations Total Buildout** Buildout Fund State Year progress bar to show Total Build ∨ ACAMII IA 2022 separate Tribal buildout Target **Progress for Ace Telephone Association Total Buildout Target Carrier Name** 2982 Locations certified towards target Locations not saved or certified Locations saved but not certified

#### Select Application

HUBB V

Home

Manage Uploads

Location Details

Milestone Certification and Reporting

### Manage Uploads

Use the form entitled CSV Template to upload data. For more information on how to use these and how to format your data, click on Detailed Instructions and Filing Guidance Q&A. For bulk deleting data from previously uploaded file, use the form entitled Bulk Deletion Template. For bulk updating data from previously uploaded file, use the form entitled Bulk Modification Template.

The "deployment year" is derived by the system from the deployment date provided in each qualifying uploaded record that should be reported to USAC. The year associated with the deployment date is used as the "deployment year".

The HUBB permits carriers to file records for multiple deployment years at once.

Timeliness is based on the due date for the deployment year associated with each record. That is, if records are filed prior to the deployment year due date, they are considered ontime. If records are filed after the deployment year due date, they are considered late. For example, on March 15, 2018, a CAF-BLS recipient files some records for the 2017 deployment year (report due March 1, 2018) and some records for the 2018 deployment year (report due March 1, 2019). The records associated with the 2017 deployment year are considered late as they were filed after the 2017 deployment year due date (March 1, 2018). The records associated with the 2018 deployment year are considered on-time as they were filed before the 2018 deployment year due date (March 1, 2019).



#### Resources

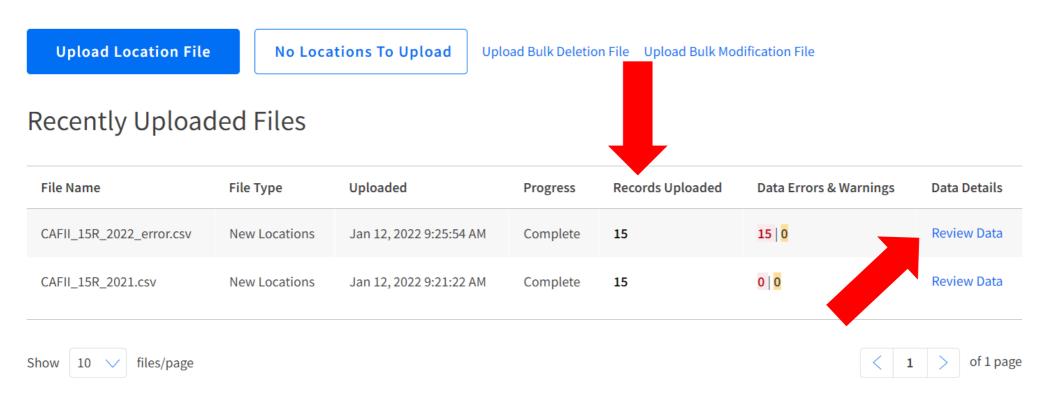
- Detailed Instructions Available
- Filing FAQ
- New Locations Template
- Bulk Deletion Template
- Bulk Modifications Template

#### **Actions**

- Upload New Locations File
- No Locations To Upload
- Upload Bulk Deletion File
- Upload Bulk Modifications File



#### **HUBB Manage Uploads Screen**



- View Status of New Locations Uploads
- View Status of Bulk Modifications and Deletions
- Review Data for New Locations and Modified Locations

#### **HUBB Manage Uploads Screen**

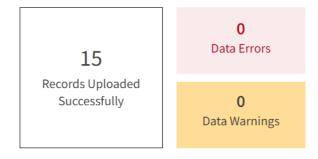
### File Upload Details

#### Summary

These are the validation results for **CAFII\_15R\_2021.csv**. To fix errors or warnings, you can either delete all the locations and upload a new file, or edit each data entry individually using the table below.

- Locations with **one or more errors** cannot be saved into the system.
- Locations with **one or more warnings** can be saved into the system.

Note: The system does not display all errors for locations in the table below. To view the errors/warning codes, select the "Edit" icon in the table or the link "Download Data Errors and Warnings" below.





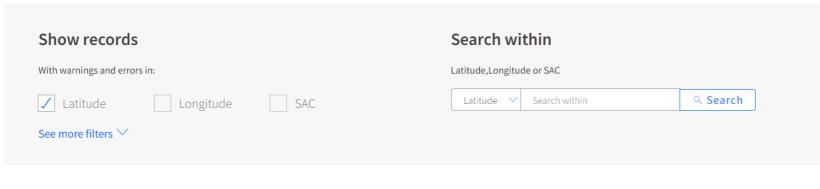




- If all locations pass validations and no errors or warnings are displayed
- Then you can Save the locations uploaded into the HUBB

#### **HUBB Manage Uploads Screen**

#### **Records With Issues**





Displaying 10 of 15 records

SAC	Latitude	Longitude	Date of Deployment	Speed Tier	State	No. of Locations	Edit
255181		-85.6277064	1/1/2021	3	VA	4667	
255181		-85.6514743	1/2/2021	4	VA	4667	
255181		-85.6250011	1/3/2021	5	VA	4667	ď
255181		-85.6121512	1/4/2021	6	VA	4667	

- For locations that fail Validations, you can download the file
- You can fix and errors using the single line edit tool
- Then you can Save the locations uploaded into the HUBB

#### No Locations To Upload Select Fund Deployment Year AK PLAN V 2020 I certify that I am an officer of the reporting carrier 613023 - UNITED UTILITIES INC. To the best of my knowledge, the information submitted to USAC and certified in the filing for this deployment report is accurate and information submitted to USAC and certified in earlier filings for the broadband deployment report continues to be accurate. In the Deployment Year selected, the reporting carrier(s) did not deploy to any locations in eligible areas in satisfaction of its (their) public interest obligations (For example, if you selected 2018 in the drop down above, you are certifying that from January 1, 2018 to December 31, 2018 the reporting carrier(s) did not deploy to any locations in eligible areas in satisfaction of its (their) public interest obligations.) Please enter the holding company name: To sign digitally, please enter your name [MM SPO]:

#### **HUBB No Locations To Upload**



#### **Select Application**



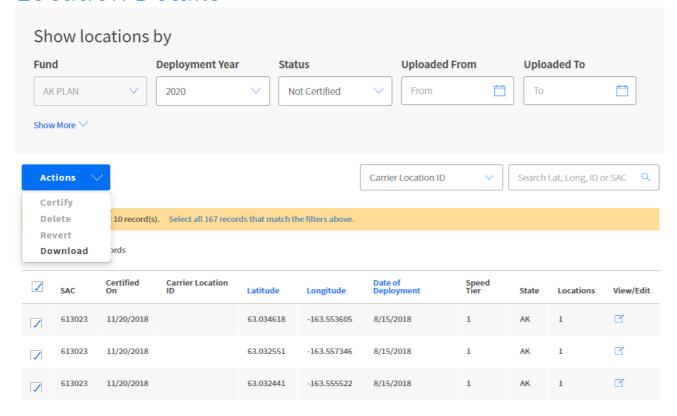
Home

**Manage Uploads** 

**Location Details** 

**Milestone Certification and Reporting** 

#### **Location Details**



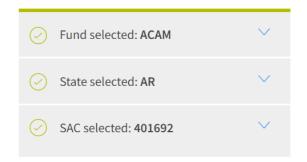
#### **Actions**

- Certify Locations
- Delete Locations
- Revert Prior Certification
- Download Locations for Bulk Modifications and Deletions



# HUBB Milestone Certification and Reporting Screen

### Milestone Certification and Reporting



Fields may automatically populate based on your uploaded file. You may edit your fields at any time.

In the table below, select a deployment year by clicking a radio button in the Select column. Click the Actions dropdown button above the table to select an action for the milestone related to the selected deployment year: View Speed Tier Report, Certify, View History.

**Disclaimer:** This report provides feedback as data is added or removed from the HUBB. The information contained within this report is intended for informational purposes only to assist in compliance efforts and does not constitute a final determination of your compliance with the required performance obligations.



Ac	tions 🗸								
Speed Certify View H		Ready For Certification	Certified	Cumulative Certified	% of Certified Locations	Milestone Obligation %	Milestone on Target?	Certified On	Milestone Certification Status
	2016	0	1518	1518	-		-	-	-

### Milestone Certification

Certify View History  2016		Ready For Certification	Certified	Cumulative Certified	% of Certified Locations	Milestone Obligation %	Milestone on Target?	Certified On	Milestone Certification Status	
		0	1518	1518	-		-	-	-	
	2017	0	703	2221	-		-	-	-	
	2018	0	699	2920	-		-	-	-	
	2019	0	194	3114	-		-	-	-	
	2020	0	365	3479	77.85%	40%	Yes	02/17/2021	Certified	
	2021	0	0	3479	77.85%	50%	Yes	-	Ready	
	2022	0	0	3479	77.85%	60%	Yes	-	Ready	



#### **HUBB New Locations CSV Template**

#### Latency Field

- Required for CAF 2 Auction and Alaska Plan
- Optional for other programs
- Values
  - 1 High Latency
  - 2 Low Latency

		` '	•	

Fields with an Asterisk (\*) are Required

4	Α	В	С	D	E	F	G	Н	1	J	K	L	M	N
1	Study Area Code*	Latitude*	Longitude*	Date of Deployment*	Download/Upload Speed Tier*	Address*	City*	State*	Zip Code*	# of Units*	Carrier Location ID	Technology	Other Technology	Latency
2														
3														
4														
5														

#### Technology Field

- Required for CAF 2 Auction
- Optional for other programs
- Values
  - 1 DSL
  - 2 Cable
  - 3 Fiber
  - 4 Wireless
  - 5 Low Earth Orbit Satellite
  - 6 Geostationary Satellite
  - 7 Other Technology (Description Required)

#### Other Technology Field

 Description of Technology

### **HUBB Tips for Success**

- Collect accurate location data use geo-location best practices
- Start filing early to identify and fix any data errors
- Ensure all of your users can successfully log into HUBB through E-File
  - Contact your company officer for updates to user accounts
- Check the version of your Internet browser
  - Check Help for currently supported versions
- Download and use the most current version of the template
  - Found in HUBB and on HUBB resource page
- Make sure to Certify your data and milestone (if applicable) after it has been saved

### **HUBB Data Modifications and Deletions**

- Ability to change or delete multiple HUBB location records at once through Bulk upload
  - Single location changes still available
- Separate CSV Templates for Bulk Modifications, Bulk Deletions and Additions (current)
- Modifications changes to data fields for previously certified deployment locations
  - Speed Tier, Address, City, State, Zip Code, Carrier ID
  - Date of Deployment Month and Day (Changes to Year Requires FCC Approval)
  - Latitude and Longitude within specific distance (≤ 36 ft)
  - Technology & Latency (Mandatory or Optional depending on fund)
- Modifications & Deletions Can be Uploaded by Any Carrier Role Must be Certified by the Certifying Officer
- Deletions removing previously certified deployment locations and replacing them
  - Changes to Deployment Year considered a deletion
  - Changes to Latitude and Longitude greater than specific distance (> 36 ft)
  - Reason required for all Deletions
  - For Deleted Locations Resubmit New Locations
  - Retain records to demonstrate link to original location being replaced for verification purposes

### **HUBB Portal: Tracking Broadband Deployment**

#### For more information about filing in the HUBB,

please visit the HUBB resources webpage:

https://www.usac.org/high-cost/annual-requirements/submit-data-in-the-hubb/

#### **Resources include:**

**HUBB** FAQs

**Guide** to Geolocation Practices

FCC **Guidance** on Location Reporting

**HUBB User Guide** 

Multifactor Authentication Troubleshooting <u>Steps</u>

(for E-File access)

## **Verification Reviews: Confirming Broadband Deployment**

### For more information about the verification review process,

please visit the verification resources webpage:

https://www.usac.org/high-cost/resources/fund-verification-reviews/

#### **Resources include:**

Verification webinar <u>recording</u> (for ACAM carriers)

Verification webinar <u>presentation</u> (for ACAM carriers)

## **Network Performance Testing: Measuring Speed and Latency**

#### For more information about performance measures testing,

please visit the performance measures resources webpage:

https://www.usac.org/high-cost/annual-requirements/performance-measures-testing/

#### **Resources include:**

FCC information about the performance measures testing program

<u>Charts</u> showing acceptable test paths and remote server locations

List of <u>vendors</u> that are helping carriers with speed and latency testing

Quick tips guide to the PMM

Performance measures testing webinar <u>recording</u>

Performance measures testing webinar <u>presentation</u>

An <u>explanation</u> of PMM compliance calculations

# **Questions?**