BEAD NET Primer

January 2025

OKLAHOMA
Broadband Office

Overview

The Oklahoma Broadband Office is issuing a Request for Information in order to improve the proposed Network Expansion Territories which the OBO will utilize to make BEAD awards. A NET is a Network Expansion Territory, and it represents a collection of unserved and underserved locations within a certain geographical area.

Each NET has been assigned Net Present Value (NPV) to determine its investment value. The data used to determine the NPV for each NET is sourced from CostQuest's 20-year NPV of Greenfield. They define the dataset as an "investment assuming a cash flow of 70% take rate on $75 ARPU, 4-year ramp of construction and subscription, operating expenses, income taxes, and replacement capital."

The office is seeking feedback on which NETs to sever, locations that should be shifted from one NET to another, NPV revisions for NETs, which NETs companies are interested in, which NETs for partial interest, which NETs are non-viable, which NETs to combine, and an option to provide other feedback.

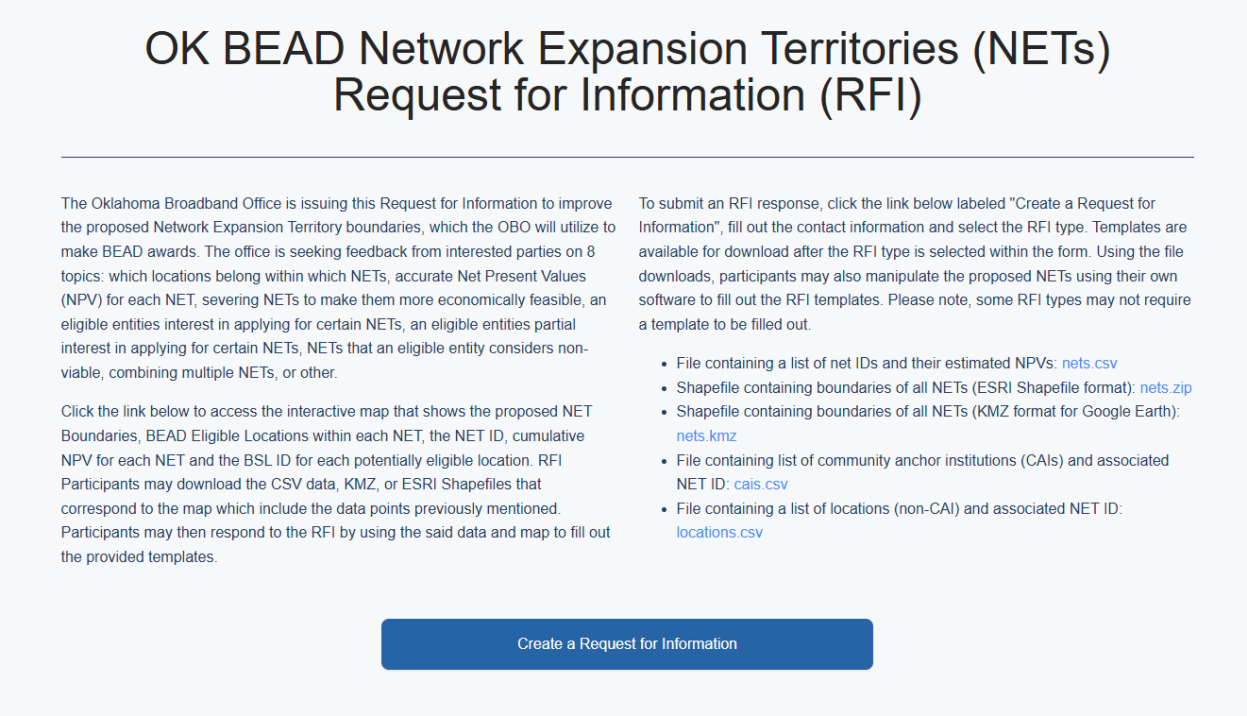
1. First stage of development

Using geographical mapping and cost modeling data, the OBO and its partner, Ready.net, has develop Network Expansion Territories. Geographical markers including rivers, roads, and bridges, along with cost-modeling data, will be used to help determine NPV as well as NET boundary lines. The OBO's goal is to have every location in the state served by reliable high-speed internet.

2. Request for Information

The office is seeking comments during a Request for Information window to hear directly from potential applicants about the financial and construction viability of the proposed NETs. In order to get every Oklahoman access to high-speed internet, the office would like to hear about the economic reality of building to proposed locations.

How the RFI process will work



OK BEAD Network Expansion Territories (NETs)
Request for Information (RFI)

The Oklahoma Broadband Office is issuing this Request for Information to improve the proposed Network Expansion Territory boundaries, which the OBO will utilize to make BEAD awards. The office is seeking feedback from interested parties on 8 topics: which locations belong within which NETs, accurate Net Present Values (NPV) for each NET, severing NETs to make them more economically feasible, an eligible entities interest in applying for certain NETs, an eligible entities partial interest in applying for certain NETs, NETs that an eligible entity considers non-viable, combining multiple NETs, or other.

Click the link below to access the interactive map that shows the proposed NET Boundaries, BEAD Eligible Locations within each NET, the NET ID, cumulative NPV for each NET and the BSL ID for each potentially eligible location. RFI Participants may download the CSV data, KMZ, or ESRI Shapefiles that correspond to the map which include the data points previously mentioned. Participants may then respond to the RFI by using the said data and map to fill out the provided templates.

To submit an RFI response, click the link below labeled "Create a Request for Information", fill out the contact information and select the RFI type. Templates are available for download after the RFI type is selected within the form. Using the file downloads, participants may also manipulate the proposed NETs using their own software to fill out the RFI templates. Please note, some RFI types may not require a template to be filled out.

- File containing a list of net IDs and their estimated NPVs: nets.csv
- Shapefile containing boundaries of all NETs (ESRI Shapefile format): nets.zip
- Shapefile containing boundaries of all NETs (KMZ format for Google Earth): nets.kmz
- File containing list of community anchor institutions (CAIs) and associated NET ID: cais.csv
- File containing a list of locations (non-CAI) and associated NET ID: locations.csv

Create a Request for Information

A company will access the landing page where they will find multiple files to download. These files include three csv templates and will be used for resubmission. The list also includes a kmz and zip for mapping purposes.

Data Files

The csv files labeled CAIs, Locations and NETs will be used by Internet service providers to inform their RFI submissions.

1. CAIs.csv will have column headers including:

	A	B	C	D
	location_id	lat	lon	net_id
	b3c54a7fbdcf9375ebed2b79c3fc866d	34.62771068	-96.84194047	1451-40123
	91754ef16429206dcd982a08334adfc0	34.62748588	-96.84621776	1451-40123
	41df14d41fff246543e9281ddb92248f	34.627205	-96.839739	1451-40123
	8bba689cdd28f185cdbec43c9500e803	34.62295532	-96.84627533	1451-40123

Column A: Location ID. **This refers to the Location ID within the RFI interactive map. Not the CostQuest Fabric ID.**

Column B: Latitude Coordinate

Column C: Longitude Coordinate

Column D: NET ID

2. Locations.csv will have column headers including:

	A	B	C
1	location_id	fabric_id	net_id
2	61f7783bda3ab68d644ab50e04478c02	1288230868	1451-40123
3	9a7a6c6133fc15d4a0f8d9e2238dd4ae	1288230611	1451-40123
4	bb5e7fc50fc90900201382e40c96986d	1288230614	1451-40123

Column A: Location ID. **This refers to the Location ID within the RFI interactive map.**

Column B: Fabric ID. **This refers to the CostQuest Fabric ID.**

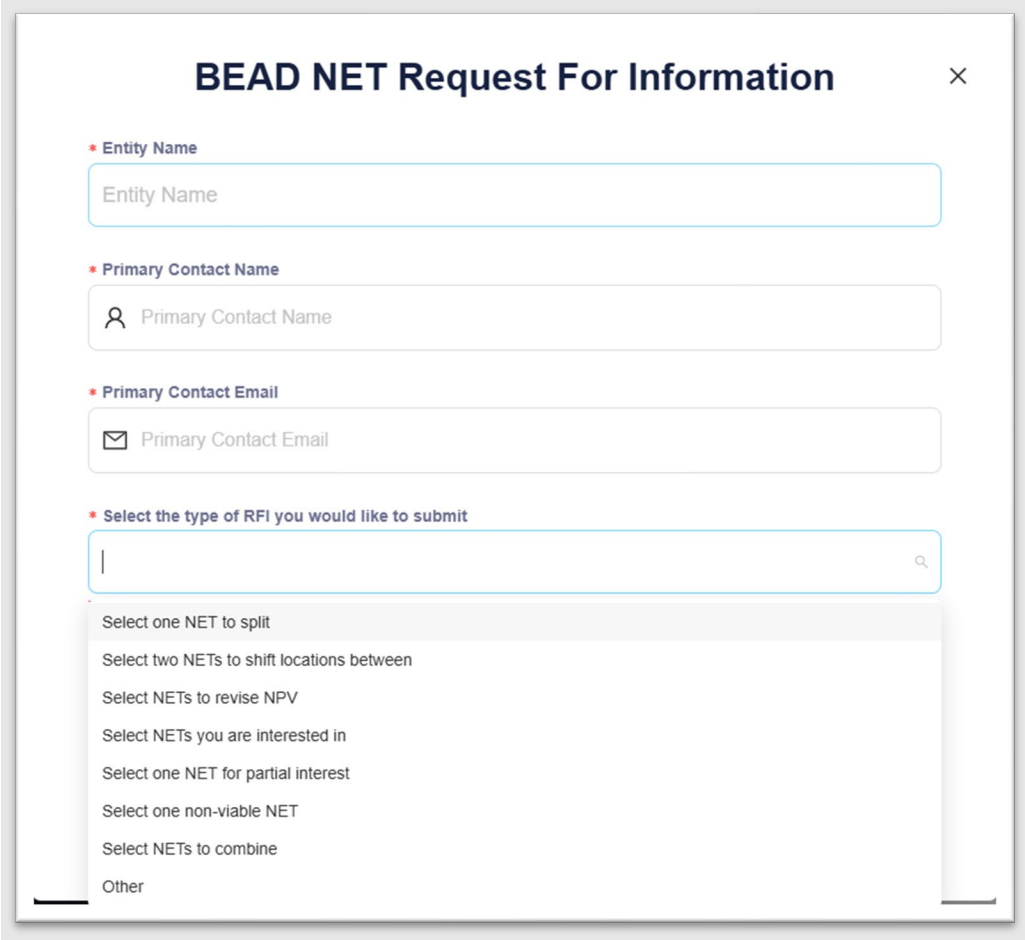
Column C: NET ID

3. NETs.csv will have column headers including:

	A
1	id
2	0-40001
3	1-40001
4	2-40003

Column A: NET ID

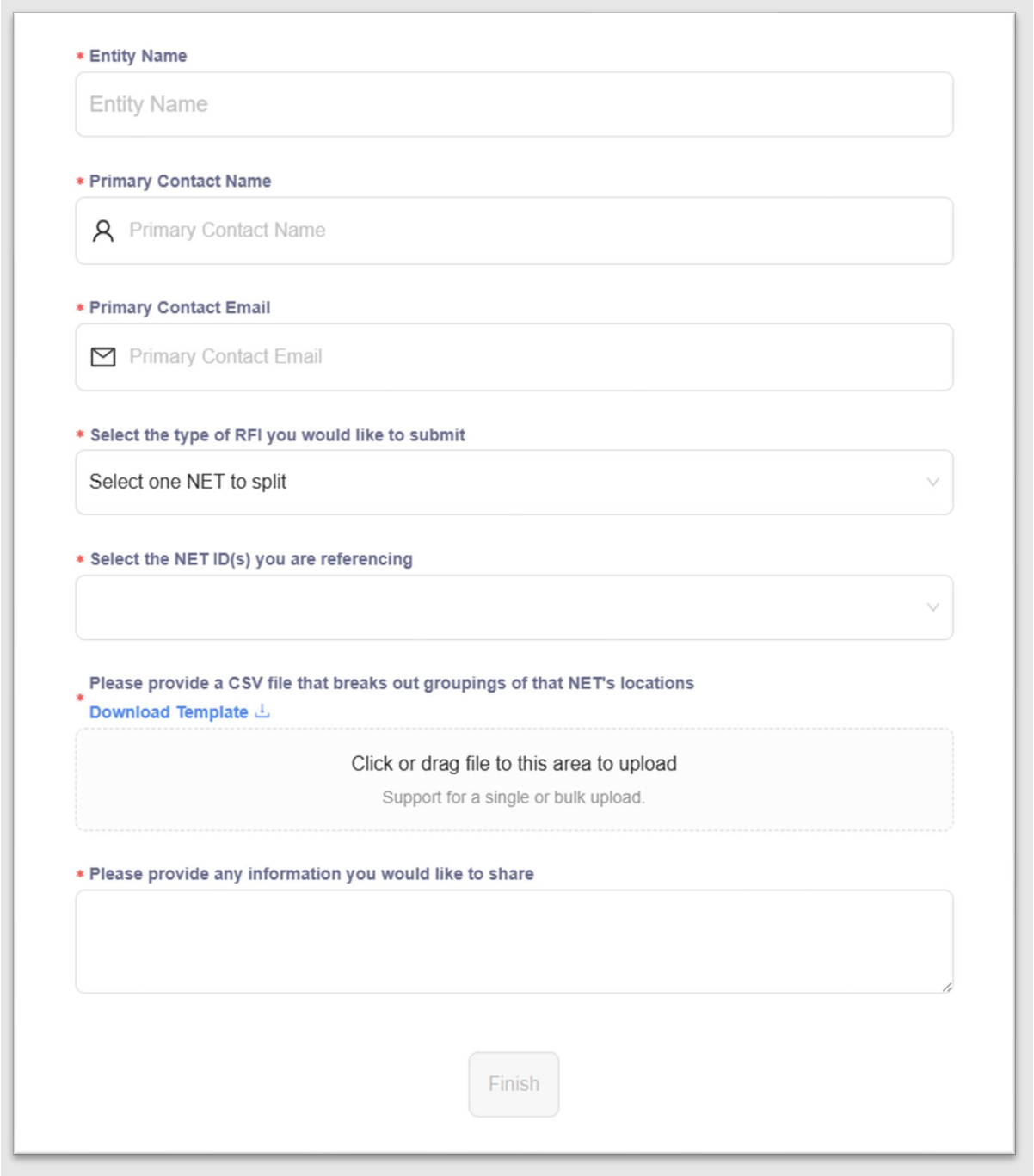
Submitting an RFI



Internet service providers will fill out a form with the opportunity of submitting eight types of requests:

1. Select one NET to split:
    a. Example: Company A suggests splitting NET 30 into two to make them economically feasible.
2. Select two NETs to shift locations between
    a. Example: Company A suggests certain locations from NET 30 would be more efficient in NET 31.
3. Select NETs to revise Net Present Value (NPV)
    a. Example: Company A downloads “nets.csv” and determines the NPV should be updated based on their own evaluation.
4. Select NETs you are interested in
    a. Example: Company A informs the OBO that a certain NET is of business interest and would apply for it in its current state.
5. Select one NET for partial interest
    a. Example: Company A submits information about part of a NET they are interested in serving.
6. Select one non-viable NET
    a. Example: Company A informs the OBO that certain NETs are not of business interest because of a reason including but not limited to, financial, geographical, or size.
7. Select NETs to combine
    a. Example: Company A submits information explaining why separate NETs should be combined into one larger NET.
8. Other
    a. Organizations can suggest a different reason to change NETs by selecting “Other.”

After a company has selected which type of RFI it will complete, the form will ask which NETs will be referenced. On the form, users should click on all NETs impacted by their RFI. **A template specific to the RFI type will be available. Users should download the template and fill out the information in each column.** Once the template is complete, users will upload the csv to complete their RFI submission.



3. Finalizing NETs

The Oklahoma Broadband Office will take all feedback from the RFI window and apply those changes to cure the NETs. There is the chance that NETs are constructed differently in the final version based on recommendations from the RFI window. If an ISP is interested in contributing to the design of NETs, the RFI window is the one opportunity.

4. Applying for NETs

The BEAD application process will be opened some time after the RFI window is closed. **Oklahoma's BEAD Subgrantee Selection process will revolve around the NETs.** ISPs will fill out questions related to the service they can provide to the locations within the NETs they select. The application can be as small as one NET, or many NETs.

It will be highly competitive. Part of the application process is determining, as an applicant, which NETs are feasible to serve. That is where Severability comes into play. OBO is requesting that applying ISPs mark down all potential NETs they are willing to serve in the event that they are awarded a partial project.

Example: Company A applied to serve NETs 4, 6, 7, and 8. However, they were only awarded NETs 4 and 8 because of the competitive scoring process. In this case, OBO needs to know if Company A is willing to serve NETs 4 and 8 even though they applied for all four. The company should forecast this potential situation and inform the office of their hypothetical decision, and all other hypothetical decisions, within their application.

What a severability matrix might look like for Company A.

Project 1 Severability Matrix								
	Includes NET: (1=Yes, 0=No)				Number of locations	Number of unserved locations	Project 1 is willing to serve subproject	Grant request
Subproject	4	6	7	8				
1	1	1	1	1	259	238	YES	$2,529,702
2	1	1	1	0	132	111	NO	
3	1	1	0	1	188	167	NO	
4	1	1	0	0	61	40	NO	
5	1	0	1	1	238	238	NO	
6	1	0	1	0	111	111	NO	
7	1	0	0	1	167	167	NO	
8	1	0	0	0	40	40	NO	
9	0	1	1	1	219	198	YES	$2,000,000
10	0	1	1	0	92	71	NO	
11	0	1	0	1	148	127	NO	
12	0	1	0	0	21	0	YES	$80,000
13	0	0	1	1	198	198	NO	
14	0	0	1	0	71	71	NO	
15	0	0	0	1	127	127	NO	