

## Alternative Technology Application Questions

This template should only be filled out by Applicants submitting projects using low-Earth-orbit (LEO) satellite service. Satellite is not considered Reliable Broadband nor Non-Priority Broadband; rather, it is considered an Alternative Technology. The Applicant must complete this section for each satellite project it is submitting. If additional space is needed, Applicant should attach supplemental materials and upload as a single PDF.

### Section 1: Network Performance Requirements

**1.1 Applicant certifies it will meet the network performance requirements set forth by the Department of Energy and Environmental Protection (DEEP) in the table below:**

*Table 1 – Minimum Network Performance Requirements*

Network Performance Criterion	Requirement
Minimum speed available to subscriber	100/20 Mbps
Latency	<100 ms
Average outage time per subscriber	Less than 48 hours over any 365-day period
Network availability	99.5% of the time over a one-month period
Other criteria	No data caps or usage-based throttling
Area take-rate at minimum design performance	40%

**Applicant certifies it will meet the network performance requirements set forth by DEEP.**

*If Applicant can check the box to certify, proceed to Section 2 below. If unable to certify, answer all questions in 1.2.*

**1.2 If Applicant’s network will not meet the performance requirements set forth in Table 1, please indicate the proposed network’s performance capabilities:**

- a. **Indicate minimum speed (download/upload) available to each proposed location:**
  
- b. **Indicate the maximum latency for each proposed location:**
  
- c. **Provide the average outage time per subscriber (in hours) over any given 365-day period. Include any assumptions about obstructions:**

**d. Provide the network availability (percent) of the proposed service over a one-month period:**

**e. Indicate if the service will include any data caps or usage-based throttling:**

Yes       No

**f. Provide the assumed take rate within a project area for the network to achieve minimum design performance:**

## Section 2: Customer Premises Equipment

Respond to the requirements below and, where applicable, confirm that the proposed solution complies and explain how.

### **2.1 Describe the proposed customer premises equipment (CPE) configuration(s).**

- **Describe the antenna, the indoor equipment, and the connection between them.**
- **Provide specifications for wind loading, temperature, ice and moisture.**
- **Describe typical home router features available in the CPE such as supported 802.11 bands, Wi-Fi security, number of ethernet ports, supported 802.3 network types, maximum number of clients supported, number of SSIDs, MAC address filtering, security, Network Address Translation (NAT), VPN client support, bandwidth management, availability of static IP address, and event logging.**
- **Describe RF link reporting provided to the customer such as satellites serving the CPE, signal intensity/quality, information about obstructions and uptime, and RF frequency bands in use by CPE. How can these diagnostics be accessed by the customer?**
- **Can the customer obtain a static IP?**
- **Describe any location-based services provided by the network.**

## Section 3: Provisioning, Installation and Operations

**3.1 Detail the provisioning and installation processes. Describe how the proposed solution handles the following:**

- Safe and stable physical installation of the antenna and any other necessary equipment,
- Connecting the antenna to an indoor router and other steps in premises installation, and
- Activating service to the customer

**3.2 Describe your proposed average and maximum time to install—the time from receiving a customer installation request to completing installation.**

**3.3 Describe the conditions, if any, in which the proposed solution may be unable to provide internet service of the proposed performance level to an eligible location. Discuss whether there is any possibility of capacity limitations that may limit new installations.**

**3.4 Describe the impact to performance and reliability of the antenna having a partial view of the sky due to building and foliage obstructions. Does having a partial view of the sky limit the performance or availability, and if so, to what degree? What options are available to address limitations caused by obstructions?**

**3.5 Describe how you propose to provide customer service. Describe how you propose to repair or replace customer premises equipment, including equipment installed on rooftops.**