ConnectALL – Affordable Housing Connectivity Program: Network Design Guidance

The Affordable Housing Connectivity Program funds infrastructure for high-speed internet in regulated affordable housing properties. Internet Service Providers (ISPs) should demonstrate in their application how they plan to build and deploy high-speed internet services to these specific types of properties. Applicants should reference this guidance when completing questions in the Approach and Scope of Services sections of the Program application.

[Project Name] - [High-Level Description]

Deployment Overview

- City: [City Name]
- Project Duration: [Start Year-End Year]
- Portfolio Details:
  - Total Units: [Number]
  - Locations: [Number]
  - Buildings: [Number]
- Service Specifications: [Key Features like Mbps or symmetrical FTTH]

Deployment Scope

- Locations to be Connected: Provide as a table (insert template below)
  - Fiber Sites: [General Description – number and addresses]
  - Fixed Wireless Sites: [General Description – number and addresses (identify whether a location is subtended off a fixed site)]
  - [Other Connectivity Solutions]

Infrastructure Deployment

- Detailed network topology including all locations, fiber (owned/leased/IRU)/ backhaul/aggregation, type II facilities, specific microwave (or other building connectivity/backhaul)
- Middle Mile / Backhaul Network Design:
  - If the proposed design includes the installation of dark fiber, then indicate the following:
    - Street level map detailing the design routes
    - Ownership and size of the fiber cable(s)
      - Proposed Lit vs. Spare counts
    - Type of construction (aerial vs. direct buried vs. underground) indicated on map
      - Identification of infrastructure owner (i.e. ECS, Electric Utility/Joint Pole owner)

- If the proposed design includes leasing dark fiber from a provider, then indicate the following:
  - Map detailing the route(s)
  - Type of fiber and number of strands being leased or IRU
  - Quote including terms, renewal fees, and Service Level Agreement
- If the proposed design utilizes carrier-provided loop circuits, then provide the following documentation:
  - Schematic detailing the customer premise demarcation location to the provider's network; also provide backhaul/aggregation pops
  - Name of provider(s), size of circuit(s), and pricing. (Quote including locations monthly recurring costs, terms, one time NRC's)
  - Service Level Agreement
- If the proposed design includes the use of wireless equipment, microwave, millimeter wave, and/or satellite, then indicate if the spectrum is licensed or unlicensed.
- Provide a table detailing the backhaul solution (owned dark fiber, leased dark fiber, lit services, wireless) on a per building basis.

- Provide details associated with your proposed network redundancy design

- ISP (Inside Plant):
  - Equipment Placement and Installation Plans
  - Deployment Alternatives (e.g., APs, managed Wi-Fi)
  - Provide your per building usage/oversubscription ratios
  - Provide your Building Access Agreement template. If your BAA does not address the following requirements (see below), then please provide:
    - Equipment space, power, and grounding
    - Roof space and power (if applicable)
    - Space requirements for cabling infrastructure in the riser(s), ceiling/hallways, access to the housing unit(s).
    - HVAC requirements if the building does not have sufficient facilities (Physical access (during installation, troubleshooting, maintenance & repair, etc.)

Engineering and Timeline

- Sample Engineering Drawings: [Reference or Placeholder for Diagrams]
- Provide a detailed schedule that provides transparency on key deliverables and project milestones.

Project Differentiators

- Local Expertise and Partnerships
- Unique Features (e.g., Apps, Customer Portals, Account Management)