

Broadband Policies & Mechanisms

AN GUIDE FOR STATES AND LOCALITIES

Overview

To maximize the historic broadband investment in the Infrastructure Investment & Jobs Act (IIJA), states and localities should consider policies to reduce construction cost and accelerate project deployment: 1) **right-of-way (ROW) access**; 2) dig once for **buried deployments**; 3) pole attachment policies and one-touch make-ready (OTMR) for **aerial deployments**.

RIGHT-OF-WAY ACCESS

Broadband networks are built along either public land that runs alongside roads and railways or private land and facilities, known as the ROW. For new broadband deployment, providers need to access the ROW, a process that can be slow and costly. Jurisdictions should consider policies that **streamline the ROW**.

Streamlined ROW

Jurisdictions and private owners **grant providers easements** to access the ROW. In addition, they **provide permits to providers or reach lease agreements with them** to build broadband infrastructure via conduits, paths, utility poles, and other structures along the ROW. Jurisdictions looking to streamline ROW access can identify and alleviate bottlenecks in these processes while still ensuring safe construction practices.

BENEFITS

They can significantly reduce deployment time and capital expenditure (CapEx). Policies to ease ROW access can look to simplify complicated permitting processes and increase local capacity, which would speed up providers' planning and construction time and reduce their costs. ROW access policies can also promote newer methods, such as micro-trenching and rapid small cell wireless facility deployment via public infrastructure, that, when installed correctly, can be faster and more affordable for providers.

POLICY STRUCTURE & IMPLEMENTATION

Permitting: Jurisdictions should streamline the permitting process. Options include simplifying the number and complexity of permit applications (the “one-stop shop”), offering expedited permitting for minimally invasive construction practices, and putting in place e-permitting.

Parameters: Jurisdictions should define the appropriate sizing and installation locations of conduit, small cells, and other broadband infrastructure to ensure safety and durability. Less involved practices can significantly reduce costs and minimize disruptions when installed correctly.

RISKS & OTHER CONSIDERATIONS

Safety & durability: Poor construction practices pose a safety risk to workers, pedestrians, roadways, vehicles, and public services. Moreover, natural phenomena (e.g., earthquakes, icy weather) and other construction can damage poorly installed conduit and especially aerial facilities. Streamlined ROW policies should include safety measures and require project owners to take corrective or restorative actions to ensure safety and durability.

Staff resourcing: Lack of staff is a common barrier, particularly for permitting. Jurisdictions should think through realistic staffing needs to prepare for IIJA funding. Permit offices can be self-sustaining with reasonable fees.

BURIED DEPLOYMENT

Buried deployment involves running cable underground for terrestrial broadband and fixed or mobile wireless fiber backhaul along the ROW. Historically, project owners dug trenches each time they installed infrastructure or did maintenance. **Dig once** policies can reduce the substantial CapEx and length of traditional buried deployment, as well as provide additional societal benefits.

Dig Once

Dig once is a broad term that encompasses a range of policies. At their core, **dig once policies encourage or require project owners to install multiple conduits or micro-ducts (or both)** for future use during any construction (e.g., telecoms, transportation, utilities) along the public ROW, especially highways and roads.

BENEFITS

It can reduce future costs. Installing conduit as part of any planned construction minimizes the need for future broadband construction.

It can minimize disruption to services. A dig once policy reduces future construction along the public ROW, thus reducing service disruptions for citizens.

It can take advantage of IIJA spending. In conjunction with the IIJA, the Federal Highway Administration (FHWA) has issued rules that encourage states to promote dig once along the state ROW.¹ With a dig once policy in place, state broadband offices and Departments of Transportation (DOT) can coordinate to maximize the impact of IIJA transportation investments.

CONTEXT IS KEY

While the policies in this guide have had success in many locations, they are not universally applicable. States and localities should take their specific context into account when weighing benefits and costs.

POLICY STRUCTURE & IMPLEMENTATION

Implementation mechanism: Jurisdictions must consider which implementation mechanism to use, as it influences the policy's stringency and several key structural questions.

Legislation or ordinance: Typically, this is a mandate that applies to all construction along the public ROW. Legislation is more likely to ensure that conduit gets installed but provides less flexibility to project owners.

Executive order: Typically, this is a coordinating or advisory function. The jurisdiction promotes public notice for upcoming work. Providers can choose to add conduit but are not required to, potentially lessening impact.

Cost and ownership of conduit: Jurisdictions must decide which entity owns the conduit and can benefit from it (e.g., through public services or leasing to others), as well as how to pay for it.

Jurisdiction: The jurisdiction often reimburses the project owner for a percentage of total costs. Owning the conduit requires more involvement but also allows the jurisdiction to use it or lease it to providers.

Private entity: The project owner or another provider install and own the conduit. The jurisdiction's role is more hands-off, allowing the private sector to function, but does not provide the benefits of conduit ownership.

RISKS & OTHER CONSIDERATIONS

Engineering design: The permitting agency can ensure that the conduit is accessible (e.g., in pull boxes, manholes). It should also allow access to other installed infrastructure (e.g., power lines, sanitation pipes).

Marginal cost increase: The conduit is a small part of the full construction cost. Even so, for a non-broadband project, it will increase CapEx and installation time, which may impact project viability on the margins.

1. Federal Highway Administration, *Broadband Infrastructure Deployment*, Doc. Citation 86 FR 68553, 2021 ([link](#))

AERIAL DEPLOYMENT

Aerial deployment involves attaching cables to utility poles along the ROW. Utility poles with multiple existing services (e.g., telephone, electricity, cable) require policies to regulate pole attachments so that they do not inhibit new broadband deployment. Pole attachment policies and OTMR are two areas where jurisdictions can reduce costs for project owners and promote more rapid aerial deployment.

Pole Attachment Policies

Pole attachment policies address rates, access requests, timelines, procedures to mediate disputes, and other terms and conditions. For incumbent providers, they influence operational expenses. For new attachers, they are a potential barrier to entry if they make a proposed project economically nonviable, particularly in unserved rural areas. Jurisdictions should ensure that **pole attachment policies are fair and streamlined**.

BENEFITS

They can reduce costs for new broadband deployment. Working with all interested parties, jurisdictions can determine streamlined attachment processes and reasonable rates that accelerate broadband deployment.

They can provide certainty. Jurisdictions that ensure consistent pole attachment policies provide clarity to the market, with all relevant entities able to incorporate the process into their long-term planning.

POLICY STRUCTURE & IMPLEMENTATION

Regulatory authority: Jurisdictions should identify which entity has regulatory authority for pole attachments. In some cases, legislators can re-assign regulatory authority within their jurisdictions.

FCC or quasi-public agencies: The FCC regulates pole attachments in 30 states. Quasi-public agencies, such as TVA², can also regulate pole attachments.

Local authority: Several states grant authority to localities to regulate pole attachments. The state may set requirements, such as fair and nondiscriminatory rates.

State agency: Many states give regulatory authority to an agency (e.g., public utility commission), which gives the state control of the process but requires oversight.

Pole owners: Some states designate pole owners to set their own policies and rates. The jurisdiction has minimal involvement but may mediate disputes.

Applicability: Most pole attachment policies exempt municipal and cooperative utilities. Wherever possible, jurisdictions should align policies for all pole owners and work with these groups to address their specific circumstances and needs

RISKS & OTHER CONSIDERATIONS

Economic impacts: Jurisdictions should be aware of the economic impacts of pole attachment policies on pole owners, particularly in rural areas. Typically, they install more poles per customer and have smaller customer bases on average, so rely more on revenue from pole attachment fees to support the electric system as a whole.

Federal Communications Commission (FCC) regulations

Section 224 gives the FCC authority to regulate pole attachments, though states can exempt themselves—20 states and the District of Columbia have done so. In addition, FCC rules do not apply to cooperatives or municipalities.³ In 2019, the FCC adopted an OTMR policy that “permit[s] new attachers to elect an OTMR process for simple make-ready for wireline attachments in the ‘communications space’ on a pole.”⁴ *Pole attachment policies and OTMR cited in this guide apply to states that set their own pole attachment regulations, as well as any regulations outside of FCC authority (e.g., municipalities, cooperatives).*

2. The Tennessee Valley Authority (TVA) is a federally-owned electric utility in the southeast;

3. FCC, U.S. Code Title 47 – Telecommunications, 2020 ([link](#));

4. FCC, DA 19-445, 2019 ([link](#))

One-Touch Make-Ready

Make-ready is the logistical, technical, and regulatory tasks needed to prepare utility poles for new cables. It can be an arduous, time-consuming process that slows deployment, particularly in underserved areas. **An OTMR policy designates one or more contractors to complete all make-ready tasks at the same time** rather than have the pole owner and each incumbent provider conduct their own make-ready sequentially.

BENEFITS

It can reduce make-ready costs for new attachers. OTMR allows the designated contractor to conduct all planning and carry out all adjustments simultaneously, which reduces make-ready costs for the new attacher.

It can avoid potential complications. OTMR reduces the number of parties involved in make-ready, which empowers the contractor to streamline planning, as well as make choices in the community's best interests.

It can support new market entrants. Reorganizing utility poles can be a barrier to entry for new attachers. Pole owners and incumbent providers can deny or delay new attachers, citing logistical challenges and safety concerns. By reassigning decision-making, OTMR empowers new attachers to enter the market.

POLICY STRUCTURE & IMPLEMENTATION

OTMR contractors: Jurisdictions or pole owners must determine the appropriate designated entity or entities to conduct the OTMR work.

New attacher: Under FCC rules, the new attacher can choose to request OTMR. They are responsible for all make-ready work and would typically hire a contractor

Designated contractor(s): The jurisdiction can work with pole owners and incumbent providers to develop reasonable selection criteria for safety and competence.

Additional costs: New attachers typically pay make-ready and negotiate additional costs with the relevant parties. The FCC ruled that new attachers do not have to pay for preexisting safety violations.⁵ Moreover, in early 2022, the FCC sought input on its rules for how to allocate pole replacement costs among relevant parties.⁶ Jurisdictions should be aware that additional cost issues will likely arise.

RISKS & OTHER CONSIDERATIONS

Safety & access: For utility poles with multiple existing services, concerns over worker safety and the risk of service disruption often delay projects. Though there is no silver bullet, OTMR can help to avoid long delays.

Grid resilience: The IJIA allocates funding for electric grid resiliency. A streamlined OTMR process can maximize the impact of resiliency funding, as the designated contractor can more efficiently incorporate pole upgrades.

Upcoming technical assistance: NTIA recognizes that this guide is not a comprehensive overview of relevant policies and mechanisms. Following the Notices of Funding Opportunity (NOFO) for IJIA broadband programs, NTIA will provide technical assistance to states to support grant application submissions.

5. FCC, "Third Report and Order and Declaratory Ruling", 2018 ([link](#));

6. FCC, "Second Further Notice of Proposed Rulemaking", 2022 ([link](#))

Want to learn more?

To stay up to date on the latest available information, including Notices of Funding Opportunity when released, visit our website: broadbandusa.ntia.gov