

State of Nevada, Office of Science,
Innovation and Technology (OSIT)
Performance Report

Capital Projects Fund
2023 Report

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Executive Summary

The objective of the High Speed Nevada Initiative is universal and equitable access to modern broadband infrastructure that provides all Nevadans access to an affordable, reliable, and scalable high-speed internet connection. The focus of the High Speed NV is to resolve long-standing inequities in residential broadband access particularly areas that have been recognized as habitually unserved and faced challenges participating in remote work and distance education and engaging in remote health monitoring as a result of the pandemic.

OSIT's plan to utilize its CPF grant funds is a critical component of our High Speed NV universal connectivity strategy. CPF funds will be used to solve urgent problems for a pair of groups of Nevadans. First, for rural residents of Northern Nevada, CPF funds will be used to address interconnectivity between several majority unserved residential populations along the key east-west corridor in this part of the State. Second, for low-income Nevadans residing in multi-dwelling units (MDUs) across the state CPF funds will be used to upgrade connections to the point of demarcation for the MDU and to improve internal wiring and wired and wireless network equipment within the MDU.

CPF dollars will fund the construction of lasting broadband service delivery infrastructure. This infrastructure will directly facilitate improved connectivity that is essential for both populations to successfully participate in remote work, distance education and health monitoring. The CPF funds will be paired with digital equity dollars and programming to ensure that newly connected Nevadans have access to a connected device, digital literacy training, and other supportive services needed to use the Internet to learn, earn, and live well.

Since funds were awarded to Nevada by US Treasury, OSIT has engaged in a comprehensive planning process, including engagement with communities and stakeholders across the state, to refine Nevada's two program plans: I-80 Middle Mile and Low-Income MDUs. As of this writing, planning is nearly complete and OSIT anticipates making significant progress on project implementation during the next reporting period. This annual report will provide an overview of the process, current status, and where the State is headed next.

Uses of Funds

Over the last five years, OSIT has been working with stakeholders in every county in Nevada and with broadband service providers, to identify needs for better connectivity. This stakeholder engagement and strategic planning process intensified following the passage of the American Rescue Plan Act (ARPA), which included the Capital Projects Fund (CPF). County Broadband Action Teams (BAT) played a significant role in identifying needs, gathering input, and vetting ideas. During the pandemic and in preparation for deploying CPF dollars, OSIT staff worked with County and BAT leaders to understand connectivity challenges and community priorities. OSIT conducted needs assessments that included community input. OSIT also met with local broadband service providers and conducted a detailed and thorough examination of the State's existing infrastructure to understand whether existing infrastructure could support needed connectivity improvements.

As OSIT conducted its whole-state needs assessment in preparation to allocate this once-in-a-generation funding for modern broadband infrastructure, the lack of open access fiber infrastructure between, and within, these unserved rural population centers quickly surfaced as a large impediment to better connectivity for rural and urban communities alike. After our examinations, we discovered that for

many communities, no amount of subsidy for last-mile fiber-to-the-home infrastructure would lead to affordable, reliable, scalable broadband service without first providing access to affordable, reliable, scalable, open access infrastructure that interconnects rural unserved population centers and terminates at Internet Exchange facilities in Nevada's Larger Cities (Las Vegas and Reno).

In addition to meeting with underserved communities, OSIT also met with and interviewed many last-mile commercial internet service providers. Providers confirmed that the cost of middle mile transport bandwidth along the I-80 corridor was a significant fiscal challenge for considering whether to serve or expand underserved markets along the route. Eight last-mile providers supported our proposal to Treasury to use CPF dollars for middle mile infrastructure.

OSIT next estimated costs and impact of the construction of middle-mile fiber optic infrastructure in key unserved and underserved corridors in rural Nevada. These corridors were selected by the State for several reasons, including anticipated high numbers of unserved locations, lack of commercial competition, insufficient broadband capacity, need for improved connections to the existing State fiber, and a need for improved reliability, redundancy, and resiliency.

The size and scale of the challenge of meeting Nevada's universal access goal means that all funding sources must be used strategically and in coordination. Nevada's unique circumstances, including large distances between rural population centers, and a paucity of historical investment in open-access networks that interconnect these rural population centers require OSIT to weave funding thoughtfully and efficiently from multiple sources, (CPF, BEAD, ReConnect, Universal Service, and NTIA Middle Mile) that all have different timelines and restrictions, and carefully sequence awards and projects in order to reach our goals. One such example is OSIT's plan to build the I-80 Middle Mile Network in tandem with its NTIA Middle Mile Grant Program grant in eastern Nevada. Once completed, the two projects together will connect Reno and Las Vegas with scalable, open access middle mile fiber optic infrastructure as the Nevada Middle Mile Network.

In the next reporting period, OSIT plans to release an RFP to construct and manage the Nevada Middle Mile Network. Engineering, design, and environmental review will begin in earnest in close coordination with our partners at the Nevada Department of Transportation and the Bureau of Land Management.

The Low-Income MDU Program Plan will address a critical issue faced by low-income Nevadans statewide: broadband infrastructure to and within low-income housing that cannot support residents' bandwidth needs, further widening the digital divide. In preparation for submitting its CPF Program plans, OSIT learned through community engagement that during the pandemic low-income Nevadans living in public or subsidized multi-dwelling units (MDUs) struggled with a lack of bandwidth needed for critical education, remote work, telehealth, accessing reliable health information, and other government and community-related services that were no longer available through any other means. During meetings with housing managers, inequitable, antiquated infrastructure to and within MDUs was identified as a barrier to residents' access to affordable high-speed Internet. Data from the State and regional housing authorities in Nevada show about 40,000 individual low-income, tax-subsidized housing units in MDUs currently are without access to affordable, scalable high-speed Internet.

Since funding was approved by US Treasury, OSIT has worked with State and regional housing authorities to identify and map eligible low-income MDUs and design an RFP to competitively solicit

proposals from internet service providers wishing to serve MDUs with a wireline minimum 100Mbps symmetrical service.

In the next reporting period, OSIT plans to release an RFP to construct and serve the identified MDUs.

Promoting Equitable Outcomes

OSIT's goal through the High Speed Nevada Initiative is universal access to high-speed internet that is affordable, reliable, and scalable. OSIT supports Treasury's goals that promote equitable growth in modern broadband infrastructure in communities with a critical need, such as high-poverty and rural areas. OSIT's two program plans were created with this objective in mind as the State's CPF funding will specifically address inequities in high-poverty and rural areas.

OSIT considered equity during the planning stages of this project and will continue to do so during the implementation phases. Specifically, equity was considered as follows:

- a) **Objectives:** OSIT identified rural and low-income communities as having a critical need to be served by our CPF projects. These populations are more likely than the population as a whole to be historically unserved or adversely affected by the digital divide. Rural and low-income populations are more likely to be disabled, seniors, members of a minority group, low-income wage earners in the labor force, pursuing higher education, or single caregivers. These populations are less likely to have home internet, a computer, or digital skills. Without access to affordable broadband services and devices, these populations are unable to take advantage of information technology, skills and capacities needed for full participation in our society, democracy, and economy. These populations are deprived of access to important day-to-day functions and services that affects their overall quality of life. Workers cannot expand job searches or engage in on-line education. Students cannot participate in on-line education or testing. Caregivers and seniors cannot utilize telehealth services, manage finances, participate in on-line banking or otherwise participate in community, social and civic engagements.
- b) **Awareness:** Awareness is vital to our efforts to close the digital divide. If newly connected households are unaware of high-speed internet options, infrastructure work will have been in vain. Once infrastructure projects commence, OSIT plans a strong partnership with providers and the FCC's Affordable Connectivity Program (ACP) to make households aware of their connectivity options. All awarded providers are required to participate in ACP. As new connectivity projects are completed, OSIT will work with MDU property managers, community leaders, and providers to raise awareness and enroll households in ACP. OSIT will deploy digital navigators to assist in this effort. OSIT will work with its partners to ensure that outreach will be equal and comprehensive.
- c) **Outcomes:** As projects proceed through the implementation process, OSIT will track outcomes and display on a public dashboard.

Labor

OSIT understands that a skilled and qualified workforce is essential to meeting its universal access goals and to the success of the High-Speed Nevada Initiative, including meeting infrastructure buildout timelines and ensuring high-quality work is performed. OSIT is committed to ensuring that all CPF-funded projects comply with all applicable federal and state laws and regulations. OSIT requires bidders in their proposals to demonstrate that they meet high labor standards, including, but not limited to,

detailed plans to ensure compliance with federal labor and employment laws, information about wage and overtime practices for each class of employees, workplace safety commitments, plans to ensure required training, licensure, and certification for each employee, local hiring practices, employee development programs, and whether the workforce is unionized.

OSIT likewise understands that workforce development and training are critical elements of a skilled and qualified workforce. The State has an interest in providing training to Nevadans who are interested in all elements of this work, including operations, engineering, construction, and maintenance. The State is working with providers and the workforce community to design programs that meet the needs of industry and provide skills and pathways to high-skill, high-wage careers.

Community Engagement

OSIT has a long history of in-person community engagement. From 2017-2022, OSIT conducted more than 620 meetings with Broadband Action Teams (BATs) and other community stakeholders. BATs are generally composed of local stakeholders from government, school districts, community anchor institutions, libraries, public safety, public health, and business. These conversations informed the selection of OSIT's two program priorities: I-80 and low-income MDUs. Further conversations substantiated needs that were identified during the data collection and plan development process. For example, OSIT met multiple times with the Housing Authorities in Nevada and met with residents and property managers. As described above, OSIT incorporated feedback and testimonials from its community engagement in the design of its two CPF projects, including the design of the RFPs that will select funding recipients.

Since the start of 2023, in conjunction with OSIT's BEAD and Digital Equity planning processes, OSIT visited every county in the state twice in March and April and has held over 130 in-person and virtual meetings and events for the community partners, key stakeholders, and the public. Information gleaned from these events continues to inform OSIT's implementation of its CPF programs. For example, OSIT partnered with the Housing Authorities and distributed a survey in English and Spanish to ascertain connectivity and digital equity barriers to connectivity. The results will inform OSIT's efforts to engage with low-income communities around ACP enrollment, ensure access to device, and provide technical support to newly connected households.

Moving forward, OSIT will continue to keep communities informed about construction and implementation timelines. This includes soliciting feedback during construction and implementation at public events and meetings.