SHO-ME TECHNOLOGIES

Final

MoBroadbandNow
Sho-Me MO Middle Mile Project

Environmental Assessment
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Consulting Engineers

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Environmental Assessment

MoBroadbandNow "Sho-Me MO" Middle Mile Project

Sho-Me Technologies, LLC

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EXECUTIVE SUMMARY

Sho-Me Technologies, LLC, a subsidiary of Sho-Me Power Electric Cooperative, was awarded a grant by the National Telecommunications and Information Administration (NTIA) to provide broadband infrastructure to communities throughout central and southern Missouri. Under the National Environmental Policy Act of 1969, the NTIA must conduct an Environmental Assessment of the proposed action and evaluate environmental consequences of the proposed action against alternative actions that meet the purpose and need of the project.

The purpose of the Project is to provide open-access, "middle-mile" broadband infrastructure to rural, unserved and underserved areas of central and southern Missouri (the Project Area) and to increase the reliability of the existing and proposed broadband network. The proposed broadband network includes 1,380 miles of fiber optic cable within 31 counties; switching, routing, and data equipment to be housed in existing and 15 new Point-of-Presence (POP)/telecom shelter sites; and connection to over 100 Community Anchor Institutions. Sho-Me Technologies will dedicate 880 miles of existing fibers and install 500 miles of new fiber optic cable. Approximately 300 miles of cable will be installed underground; 146 miles of cable will be hung from existing electric distribution poles; and 54 miles placed along electric transmission lines. The new cable will be placed within existing roadway and utility rights-of-way and easements.

Alternative routes and construction methods were evaluated for impacts to the natural and human environment. Various routes between areas currently served with broadband

services to unserved and underserved areas were evaluated. Installation of the fiber optic cable using underground and aerial methods were evaluated. Underground installation methods include vibratory plow-in, horizontal directional drill, and open-cut trench. For the aerial installation, the cable will be placed on existing distribution and transmission structures. Approximately 125 new wooden poles would be needed to replace existing, deficient poles. For both construction methods, access vaults would be installed to assist with fiber optic cable installation and maintenance.

This Environmental Assessment reviews the impacts of the Proposed Action; alternate routes and construction methods (Alternative Actions); and a No Action alternative to various aspects of the environment. Areas considered include: Noise, Air Quality, Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use, Infrastructure, Socioeconomic Resources, and Health and Human Safety.

The Proposed and Alternative Actions would have various impacts to the environment. These impacts include the following:

1. Temporary increases in noise from construction and routine maintenance work.
2. Minor emission of pollutants to the air from construction and operations.
3. Limited disturbance to the soil and some bedrock during construction. All disturbed areas would be restored.
4. Crossing under or over streams, rivers, and wetlands. All work would be conducted to comply with Sections 401 and 404 of the Clean Water Act and Section 10 of the

Rivers and Harbors Act. Appropriate permits would be obtained.

5. Limited impacts to floodplains that would not change flood levels.
6. Work near habitat for sensitive biological resources. Best management practices recommended by natural resource agencies would be employed.
7. Cutting vegetation during construction and operation (maintenance).
8. Work near areas that may potentially contain archaeological resources. A predictive model identified historic sites near the project routes. As planned, the project would not threaten significant cultural resources. All work would be conducted in accordance with the State Historic Preservation Office protocol.
9. Work in historic districts. All work would match current conditions.
10. Minor impacts to aesthetic and visual resources during construction and placement of aerial cable.
11. Work within the Mark Twain National Forest. A permit from the U.S. Forest Service would be obtained.
12. Minor impacts to infrastructure during construction. All work would be coordinated with the appropriate agency (e.g., MoDOT, local municipalities, utility companies).
13. Access to broadband infrastructure would increase the economic opportunities of the unserved and underserved areas of the State.
14. Potential exposure to contaminated soils. Appropriate work safety protocols would be followed.
15. Worker safety concerns such as vehicle traffic, trip and fall hazards, and electrical

hazards. Appropriate work safety protocols would be followed.

The analysis of the project, constructed using the methods described above in compliance with regulatory requirements, showed no significant adverse impacts during construction or operation for the Proposed Action or Alternative Actions to any of the resource areas described above. While a significant number of water resources, biological resources and infrastructure and a limited number of cultural resource sites exist within or near the Project Area, the flexibility of the various installation methods allow for avoidance of any significant impacts. As there are no significant impacts, the Proposed Action is recommended for construction.