National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Iniciativa Tecnológica Centro Oriental Inc. (INTECO)
Construction of Broadband Infrastructure for the Central East Region of Puerto Rico

Summary

Iniciativa Tecnológica Centro Oriental Inc. (INTECO) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to build a broadband network in Puerto Rico. The new network will provide broadband Internet access to a 413 square mile area and serve more than 416,000 individuals. The new network will be a hybrid of wireless and aerial fiber. The proposed action passes through nine municipalities and is referred to as the Construction of Broadband Infrastructure for the Central East Region of Puerto Rico (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to INTECO, through BTOP, as part of the American Recovery and Reinvestment Act (ARRA). The funding must be obligated and the Project completed within three years. This timeline is driven by the laws and regulations governing the use of this ARRA grant funding.

BTOP supports the deployment of broadband infrastructure in unserved and underserved areas of the United States and its Territories. As a condition of receiving BTOP grant funding, recipients must comply with all relevant Federal legislation, including the National Environmental Policy Act of 1969 (NEPA). Specifically, NEPA limits the types of actions that the grantee can initiate prior to completing required environmental reviews. Some actions may be categorically excluded from further NEPA analyses based on the specific types and scope of work to be conducted. For projects that are not categorically excluded from further environmental review, the grant recipient must prepare an Environmental Assessment (EA) that meets the requirements of NEPA. After a sufficiency review, NTIA may adopt the EA, use it as the basis for finding that the project will not have a significant impact on the environment, and issue a finding of no significant impact (FONSI). Following such a finding, the BTOP grant recipient may then begin construction or other activities identified in the EA as the preferred alternative, in accordance with any special protocols or identified environmental protection measures.

INTECO completed an EA for this Project in November 2010. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes:

- Installing a hybrid broadband system using both wireless and aerial fiber technology to connect the central east region of Puerto Rico;
- Installing monopole towers, equipment shelters, and ancillary facilities at eight previously disturbed locations;
- Retrofitting 15 existing communication towers;
- Retrofitting an existing building to serve as an administrative and network operations center;
- Leasing network backhaul circuits from PrepaNET; and,
- Installing aerial fiber at four egress points via aerial deployment on existing poles.

Based on a review of the analysis in the EA, NTIA has determined that the Project, implemented in accordance with the preferred alternative, and incorporating best management practices (BMPs) and protective measures identified in the EA, will not result in any significant environmental impacts. Therefore, the preparation of an EIS is not required. The basis for this determination is described in this FONSI.

Additional information and copies of the Executive Summary of the EA and FONSI are available to all interested persons and the public through the BTOP website (www2.ntia.doc.gov/) and the following contact:

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Purpose and Need

The purpose of the Project is to provide broadband service to unserved and underserved communities in Puerto Rico. The Project will add backbone capacity to INTECO's existing network and provide broadband to community anchor tenants, as well as third-party service providers. The new network will have a positive impact on businesses, healthcare, public safety, educational institutions, and local communities. The network will cover 413 square miles, servicing more than 416,000 individuals who currently do not have access to broadband services.

Project Description

The Project will install a wireless and aerial fiber network throughout the central east region of Puerto Rico. The construction of the INTECO wireless broadband network will include constructing 8 monopole towers, equipment shelters and ancillary facilities at new locations; retrofitting 15 existing communications tower locations; installing fiber optic cabling and conduit; and retrofitting an existing building to serve as the administrative and network operations center.

INTECO will use monopole towers at all eight new tower locations. These tower sites will be established on previously developed areas. The expected footprint of each monopole tower site

is approximately 625 square feet, not including the driveway. The tower sites will be gravel covered, enclosed by a perimeter security fence, and equipped with a drainage system, electrical utilities and power service, a backup power generator, and grounding system. Each tower will be 125 feet in height and erected on footings and an anchor system. In addition, a 6-ft x 6-ft concrete slab and footings will be poured for a single 4-ft x 4-ft x 4-ft environmentally controlled telecommunications cabinet, and a 4-ft x 8-ft concrete slab and footings will be poured for the backup power generator.

INTECO will execute lease agreements with tower owners at 15 existing tower sites to collocate new communications equipment for this Project. These sites require minimal construction activities, which may include the addition of mounting brackets, radios, antennas, cabling, and lightning ground protection. Although most of these sites are expected to have foundations, footings, and emergency power plants available to INTECO, these sites may also require the addition of an equipment cabinet, environmentally controlled telecommunications cabinet, a backup power generator as well as the slab and footings for this equipment.

INTECO will make interior improvements to an existing commercially zoned operations facility to accommodate the administrative and network operations required for their network. Improvements include installing modular separator walls; partitions; cubicles; network cabling and conduit; flooring; ceiling tiles and lighting; security systems; and server racks. Significant exterior building renovations and construction will not occur at this facility.

INTECO will lease network backhaul circuits from PrepaNET, a network backhaul provider that owns and operates fiber optic infrastructure throughout the region. All fiber optic cabling deployed by PrepaNET is done via aerial deployment on existing poles. INTECO will have four egress points designed in the network; these extensions will be on aerial fiber using existing infrastructure.

The following equipment will be used to construct the network:

- Backhoe, 6" to 12" excavation bucket
- Tracked clean-up cat
- Cable reel trucks and trailers
- Transport semis
- 3/4 and 1 ton trucks

Alternatives

The EA includes an analysis of the alternatives for implementing the Project to meet the purpose and need. NTIA also requires that an EA include a discussion of the no action alternative. The following summarizes the alternatives analyzed in the EA.

Alternative 1 – Wireless and Aerial Fiber Installation (Preferred Alternative). As noted in the Project Description, this effort will include constructing monopole towers, equipment shelters, and ancillary facilities at 8 new previously-disturbed locations; retrofitting 15 existing

communications towers; retrofitting an existing building to serve as the administrative and network operations center; and installing fiber optic cabling and conduit via aerial deployment on existing poles.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in the central east region of Puerto Rico. Under the no action alternative, a new broadband network would not be constructed. The EA examined this alternative as the baseline for evaluating impacts related to other alternatives being considered.

Alternatives Considered But Not Carried Forward. INTECO considered the alternative of underground cable placement. This method provides the highest protection against severe weather and vandalism, but, relative to other options, it has the highest construction budget, takes the most time to install, and causes the greatest environmental impact. INTECO also considered installing an all-aerial network. This alternative would require installing new fiber optic cables at certain locations and a rental agreement with the operator of installed aerial fiber optic infrastructure in the region, PrepaNET. An all-aerial installation would cost less, could be installed in a shorter time period, and has less environmental impact than the underground method. However, this alternative is more costly and time consuming than the preferred alternative. An all wireless alternative was also considered, which would require construction and installation of more new towers and data transmission management. This alternative does not take advantage of existing PrepaNET infrastructure. An all wireless network would cost more and take longer to implement than the preferred alternative.

Findings and Conclusions

The EA analyzed existing conditions and environmental consequences of the preferred alternative and the no action alternative in 11 major resource areas, including Noise, Air Quality, Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use, Infrastructure, Socioeconomic Resources, and Human Health and Safety. Cumulative impacts were also evaluated.

Noise

This Project will have no impacts on noise during long-term operation. However, short-term increases in ambient noise levels are expected during the construction period. Noise created by machinery used during Project construction will be temporary and localized in nature. To lessen noise impacts, the construction activities will occur during normal business hours. Based on these considerations, no significant impacts on noise are expected to occur as a result of Project implementation.

Air Quality

Tower construction, retrofitting activities, and the operation of diesel powered emergency generators will have minor impacts on air quality. Tower construction and retrofitting activities will result in minimal fugitive dust. A short-term minor increase in the use of fossil fuel and

associated greenhouse gas (GHG) emissions will occur during Project construction. Diesel powered emergency generators at each new tower site will generate minor, temporary air pollutant emissions during intermittent periods when a backup power source is needed. Construction and operation of the network is not expected to have significant adverse impacts on air quality.

Geology and Soils

Most of the Project will utilize existing infrastructure; aerial fiber will be installed on existing poles, 15 existing tower sites will be retrofitted with communications equipment, and an existing building will be modified to serve as a network and operations center. The use of existing infrastructure will minimize potential impacts on geology and soils. A small area of 625 ft^2 is needed for each of the 8 new tower sites. The new tower sites will all be located on previously developed areas. Consequently, the Project is not expected to result in significant impacts on geology or soils.

Water Resources

While conducting site visits, no wetlands or water bodies were identified near any of the installation sites. All of the sites are above the 100-year flood levels. However, stormwater runoff may carry sediment from installation sites onto private properties along the Project area, resulting in minor impacts on water resources. To avoid the potential of sediment contaminating stormwater, BMPs such as controlling erosion and developing sedimentation plans will be implemented. By following BMPs, INTECO will be able to construct the network with little or no impact on water resources in the Project area.

Biological Resources

The new tower sites will be established on previously developed areas. No critical species or habitats were identified at these locations during site visits. INTECO consultants will conduct a final analysis of each site before construction to make sure no critical habitats or species will be impacted. In the unlikely event that a sensitive habitat is identified at a construction site, INTECO will modify the location of buildings, structures, or cable paths in the interest of preserving sensitive and protected habitats. In a letter dated June 2, 2010, the U.S. Fish and Wildlife Service (USFWS) determined that no effect to any species will occur as a result of the implementing the preferred alternative, because there are no suitable habitats for species present within the identified sites. If the Project is modified or if information on impacts to listed species becomes available, the USFWS requested that INTECO notify them. Based on these analyses and following the guidance of the commenting agencies, construction of the network will not have significant adverse impacts on biological resources.

Historic and Cultural Resources

INTECO conducted a review of the National Register of Historic Places and identified 23 historic properties in the municipalities where the Project will be implemented. No historic properties are within a mile of the tower sites or cable routes and will not be impacted by Project

implementation. If INTECO encounters buried cultural deposits, they will halt construction immediately and contact the State Historical Preservation Office (SHPO) in Puerto Rico to assess the significance of the discovery. In a letter dated October 2, 2010, the SHPO in Puerto Rico stated that the Project will have no effect on historic properties. The Project was entered into the Tower Construction Notification System (TCNS) and INTECO received 2 no interest responses. Based on these consultations and guidance from the SHPO, the Project is not expected to impact historic or cultural resources.

Aesthetic and Visual Resources

This Project relies heavily on existing infrastructure; aerial fiber will be installed on existing poles, 15 existing tower sites will be retrofitted with communications equipment, and an existing building will be modified to serve as a network and operations center. The Project will have a short-term, minor, and temporary impact on aesthetic and visual resources due to the presence of construction equipment and limited soil disturbance at these locations and at the 8 new tower sites. When construction activities are complete at the 8 new tower sites, the only remaining visual impact will be a 125-foot monopole installed in a previously developed area. Accordingly, the preferred alternative is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

Land Use

This Project will be conducted in previously disturbed utility corridors and public rights-of-way, relying heavily on retrofitting existing infrastructure. The 8 new tower sites are located in rural areas and on private property where the land is previously disturbed. The Project will not impact any protected areas or forests. No land use changes will occur as a result of Project implementation. Therefore, the Project will not have a significant impact on land use.

Infrastructure

The Project will improve communications infrastructure and is expected to improve the transfer of information between public health and safety agencies; schools; businesses; and individuals residing in the communities along the Project route. The Project will have a positive impact on infrastructure in the central east region of Puerto Rico.

Socioeconomic Resources

This Project will allow the surrounding communities in central east Puerto Rico to access state of the art internet facilities. In these rural, low income locations, the new or improved bandwidth will have positive impacts on healthcare, education, economic opportunities, and public safety. The broadband network will help attract or retain businesses and provide new or enhanced access to educational resources, better public safety services through coordinated actions and training among public safety agencies, better access for existing and new health services, and Internet speeds that will permit telecommuting or new internet based businesses. In addition, the Project will have a positive impact on the ability of small communities and schools to remain viable in rural areas. Overall, the Project will have positive impacts on socioeconomic resources.

Human Health and Safety

Construction activities will not be located directly in the path of traffic, reducing potential impacts to construction workers and vehicles traveling on the highways and roads. In addition, traffic lanes will not be closed or re-routed, further reducing impacts to vehicular traffic. INTECO and its contractors will promote highway safety and efficiency by warning and guiding all vehicular and pedestrian traffic. INTECO and its contractors who are exposed either to traffic or construction equipment within the work area will wear high-visibility safety apparel. INTECO and its contractors will also implement an accident prevention program during Project construction. With implementation of these protocols, tower construction, retrofitting, and aerial fiber installation activities will not generate any significant adverse worker or traffic-related health or safety issues.

Following implementation of the Project, Puerto Rico's central east region rural health care facilities and their patients will have access to more advanced and specialized services from larger medical institutions without having to travel outside their local communities. Additionally, broadband improvements will greatly improve the speed at which medical images can be transferred and reviewed. In these ways, the Project will have a positive impact on human health and safety.

Cumulative Impacts

No cumulative impacts associated with the Project were identified in the EA.

Decision

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, and protective measures, will not require additional mitigation. A separate mitigation plan is not required for the Project. The analyses indicate that the proposed action is not a major Federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued:

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Date