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OPPORTUNITY: Sandwich Isles Communications [SIC], a locally owned and operated telecommunications company in Hawaii, is uniquely situated to take advantage of the opportunity to make available and to provide state-of-the-art, high speed broadband services to the state of Hawaii.

Over 11 years ago, SIC, a subsidiary of Waimana Enterprises, Inc. obtained the necessary certifications for its Study Area from the FCC and the local PUC as well as the state agency of the Department of Hawaiian Home Lands, to be the primary telecommunication services provider to the designated Hawaiian Home Lands [HHL] throughout the state.

Since that time, with the assistance of RUS loans, SIC has installed a fiber optic network on portions of the six major islands of Hawaii. There are three major gaps in this network that we propose to construct through this submission. We also propose to construct a Network Operations Center for the purpose of monitoring this state-wide network with the latest equipment and technology.

Although SIC has built an underground network connecting portions of the state, it has of necessity been dependent on its connection to the legacy ILEC and its aerial and out-dated copper transport facilities to provide service to its customers in rural areas. This has made SIC vulnerable to the outages that accompany unprotected plant. This local carrier has not made the necessary "middle mile" transport investment to support broadband services.

By building the remaining gaps in its network as demonstrated in this package, SIC will have an underground, protected fiber optic network throughout the state. This will allow SIC the ability to provide high speed broadband services to its rural serving areas, as well as provide open access to all providers that choose to interconnect with SIC to transport their broadband services to all other communities throughout the state. The rural communities of Hawaii are awaiting the arrival of a robust communications platform to provide its residents and businesses the same high speeds available in other parts of the state and country. The residents will be able to avail themselves of the opportunity of Distance Learning and Telemedicine technologies and the businesses will be able to compete on a local, national or even global basis.

PROJECT DESCRIPTION: The services areas that will be specifically served by the three routes included in this packet are primarily designated Hawaiian Home Lands [HHL] on Oahu, Maui and the Big Island of Hawaii. These rural areas have been actively developed into subdivisions and business areas over the last ten years and the development continues. SIC installs underground distribution telecom plant as the new areas are developed, but until it completes its own fiber network connecting all the HHL, the service cannot reach its full broadband potential.

The 'middle mile' route [redacted] on the Island of Oahu will connect three communities on the Waianae Coast with the Waimanalo area, [redacted] The entire network will be connected to the Network Operation Center, which is also included in this packet. The route from Puunene to Kula on the Island of Maui will connect the country community [redacted] to the rest of the network. The route [redacted] on the Island of Hawaii will connect 7 isolated communities [redacted] to the rest of the network. In addition to serving the residents and

businesses in its Study Area, other communities can be served by other carriers interconnecting with SIC's open access and robust network.

HOUSEHOLDS, BUSINESSES, COMMUNITY INSTITUTIONS, & SUBSCRIBER FORECAST: For many years these rural areas have been underdeveloped, which is demonstrated by the low population numbers from the latest census nearly ten years ago; 9,146 Households and 381 businesses. Since that time, development has been continual. According to the Department of Hawaiian Home Lands [HHL] 2008 Annual Report, leases with requirements to build within one to three years have been awarded to native Hawaiian families. New community centers, schools, medical facilities, fire departments and other community institutions will be added to the 88 in existence. The new broadband capabilities will stimulate business growth. In five years SIC expects to provide broadband service to 1,995 residential and 1,300 business, community, and public safety customers in its Study Area, making available its network to other carriers to serve others.

SERVICES: By completing its network, SIC will make available broadband speeds up to 50 Mbps to end customers. Additionally, SIC will support other service providers in their efforts to expand broadband services to their areas of interest by providing convenient access points to SIC's high bandwidth middle-mile transport network, at individual circuit speeds exceeding 10 Gbps.

SIC will also interconnect the many native Hawaiian community centers located throughout its serving area. The major centers are currently located in the rural HHL communities across the state. These centers house community organizations and native Hawaiian support organizations that provide programs in community-based capacity building, pre-school education, elderly activities, health care, substance-abuse avoidance, job training, and economic development. SIC will provide a high bandwidth video conferencing network that will not only interconnect all of these centers to enable information sharing among the native Hawaiian populations on a statewide basis, but will also provide access to services from major institutions, including hospitals, psychiatric care, and Hawaii universities.

NON-DISCRIMINATION: SIC is committed to an open access, neutral network with a policy of non-discrimination and interconnection for other carriers and Internet service providers. Through negotiated agreements, other providers will have access to SIC's middle-mile broadband network, which includes transport between remote service areas and their Honolulu control hubs at transport speeds to 10 Gbps. SIC has established a presence at Honolulu's major co-location telehub, with interconnection points of present (POPs) for nearly all voice, data, and video service providers in the state.

The SIC **BROADBAND INFRASTRUCTURE** focuses on fiber-optic broadband systems and related technologies that are deployed in the access portion of service provider networks between the network edge and the customer premises, enabling services such as consumer multi-play packages (e.g., high-speed Internet access and voice/VoIP). The Broadband Infrastructure includes coverage of networking technologies and solutions that enable broadband aggregation and subscriber/service provisioning. The SIC network includes the design and implementation of long haul broadband communications networks with transmission capabilities for speeds of up to 10 Gbps and greater. SIC current technologies to be deployed in the service areas are: **FTTP** – Fiber-to-the-premise solutions including both passive optical networking (PON) and active or

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point-to-point Ethernet FTTP solutions and technologies; **IP Services Platforms** – IP services platforms complement carriers' existing access and backbone equipment by providing a single service delivery point to execute network functions; **BLC/MSAP** – Broadband Loop Carrier/Multiservice Access Platforms support legacy and emerging service interfaces over both copper and fiber. Both platforms combine and aggregate a multitude of service offerings ranging from POTS to Ethernet transport optically or electronically. Both systems allow service providers to deploy advanced end to end Ethernet and IP service out to the edge of a carrier's network.

QUALIFICATIONS: SIC was awarded its first RUS Loan in 1997 to begin the process of building out its network to provide state-of-the-art telecommunication services to approximately70 non-contiguous parcels designated as the Hawaiian Home Lands. Since that time SIC has proven its ability to manage multiple Outside Plant construction projects, equipment installations and Central Office Building construction. [redacted] Over the years as the network has grown the importance of quality and sustainability has become critical with the increasing customer base. SIC has been able to provide the highest quality of service to its customer base as is evident by becoming the first wire line carrier in Hawaii to offer FTTP services to residential subdivisions. SIC has proven its ability to build and manage a complex network throughout the 6 major islands of Hawaii and provide excellent service to its customers.

COST: The total amount requested to build three middle mile routes and a network operation center is $131,939,909. A detailed budget is included in this submission.

JOBS: In the struggling economy, many construction companies have been laying off workers. With the funding of this package, 143 miles of Outside Plant will be installed within a 2-year window and the building housing the Network Operations Center will be completed. The architect estimates that 130 workers will be required for the NOC. The OSP contractors will use approximately 300 of workers. SIC will be hiring network technicians to monitor the network on a 24/7 basis and the new broadband availability in the rural areas will stimulate new businesses and jobs. All together, this will provide over 500 jobs, at a minimum. This project will not only put local people to work, but will stimulate the local economy as well.