



Nebraska Capital Projects Fund

Company: Skywave Wireless, Inc.

Project: Cuming County Area 3

Document: Attachment G

Business Plan

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Mission statement

Skywave is a local service provider. It provides internet and telephone service to its customers via wireless and fiber optic networks. It focuses on all customers in its service areas, residential and business. Skywave's mission is to provide residents of rural Nebraska with telecom services that are competitively priced, the fastest available, and local. The need for communications, specifically increased data bandwidth, is ever increasing and Skywave is deploying cutting edge technologies to make that possible. Additionally, Skywave hires local people and spends locally whenever possible. Locally owned telecommunications companies are a great benefit to the community and state that they operate in; larger national companies syphon telecommunications dollars out of the state and away from our local economies.

Proposed Network

Skywave is proposing an all-underground fiber optic network for the project area. The project consists of underserved locations in rural Cuming County. ITU G.984 GPON standard will be utilized to provide last mile broadband services. This GPON standard has a capacity of 2.488 Gbps downstream by 1.244 Gbps upstream. Updated versions support up to a 1:128 split ratio. Physical distance between the user and the provider can be up to 40Km with class C+ optics. GPON technology can easily achieve sub 1ms latency. A few factors like distance and equipment used can affect this number slightly, however it still remains one of the fastest distribution technologies. With Quality of Service (QoS) standards and extremely low latency, GPON is capable of delivering the highest (5 - excellent) mean opinion score (MOS).

Legal Challenges and Risk Factors

Skywave is a licensed CLEC (Competitive Local Exchange Carrier) in the state of Nebraska. This allows Skywave access to public ROW's (Right of Way) and utility easements of record. Skywave works with all local, state, and federal authorities in any additional permitting processes. We do not foresee any legal challenges with this project. Skywave has spoke with the county roads superintendent to discuss the possibility of this project and found no obstacles that would hinder the project being implemented as proposed.

Risk associated with the project include product availability, contractor availability, and financial considerations. With the timeframe set for the NCPF, it seems feasible that this project can be completed within the timeframe. Utilizing 99% grant funds for this project relieve most financial risk for the project. It will be important to solidify material costs and contractor rates upon the approval of the project.

Products and Services

Skywave offers a variety of services. These include various data services: residential internet, business internet, and private business links.

Telephony services include: residential and business POTS (plain old telephone service), SIP trunks, PRI's, hosted PBX solutions, e-fax, and traditional fax service.

Construction services include: trenching, plowing, horizontal directional drilling, excavation, utility locating, fiber splicing, and structured wiring.



Operational Plan

Skywave's plan for ongoing operation and maintenance of this project area is to add it to already existing systems and support staff that operate its current FTTP networks.

Skywave will continue to maintain internal staff that monitors and rectifies any issues with performance or capacity on the network. The on-going maintenance of the physical fiber optic plant is handled by outside plant technicians. Skywave has several crews of experienced fiber optic installers. Everything that is needed to maintain and service the network Skywave has in-house. This allows Skywave to keep its costs down and response times up without having to rely on outside contractors.

Skywave's technical staff handles the provisioning and maintenance of fiber optic electronics and CPE equipment used to provide services to its customers. IT staff also handles interconnection equipment and devices. Internal ticketing systems and procedures are used to provision all services from start to finish. All departments communicate using this system. This allows Skywave to provide quick response and excellent customer service.

Financial Analysis

Skywave has been building and operating its fiber network since 2012. It currently has completed networks in West Point, Beemer, and Oakland. It is nearing completion of projects in Bancroft, Dodge, and Snyder. These projects are all profitable and help provide capital for future growth and maintenance of fiber optic plants. The Bridge Program has helped substantially making these projects happen sooner allowing faster expansion of Skywave's FTTP network.

This project will consist of serviceable locations in rural Cuming County. Skywave's current fiber network ARPU (Average Revenue Per User) is approximately \$74. Skywave has seen in the past a 60%-80% take rate after the first year of service. Rural fiber builds are high cost and produce comparatively low revenue. The expense of maintaining large plants and cost of property taxes make these project difficult to fund with private funds. With the help of the NCPF funds, builds like this are possible and the cash flow is sufficient to allow the company to continue operating these rural plants.

The funds provided by Nebraska Capital Projects Fund are going to encourage faster deployment of high-speed broadband networks by Skywave and other providers while targeting areas that need it most.

Financial Analysis: Cash Flow and ROI						
	Possible Subs	112			Cost of Project	\$ 2,372,394.00
	ARPU	\$74			Skywave's Cost	\$ -
Year	Take Rate (%)	Subs	Monthly Sub Revenue	Yearly Sub Revenue	Ongoing Expenses	Cash Flow
1	50	56	\$4,144.00	\$49,728.00	\$ 20,000.00	\$29,728.00
2	60	67.2	\$4,972.80	\$59,673.60	\$ 19,000.00	\$40,673.60
3	70	78.4	\$5,801.60	\$69,619.20	\$ 18,000.00	\$51,619.20
4	75	84	\$6,216.00	\$74,592.00	\$ 17,000.00	\$57,592.00
5	75	84	\$6,216.00	\$74,592.00	\$ 16,000.00	\$58,592.00
6	75	84	\$6,216.00	\$74,592.00	\$ 15,000.00	\$59,592.00
7	75	84	\$6,216.00	\$74,592.00	\$ 14,000.00	\$60,592.00
8	75	84	\$6,216.00	\$74,592.00	\$ 13,000.00	\$61,592.00
9	75	84	\$6,216.00	\$74,592.00	\$ 12,000.00	\$62,592.00
10	75	84	\$6,216.00	\$74,592.00	\$ 11,000.00	\$63,592.00
					10 year Capitalization	\$546,164.80

Summary

This project is going to make a big impact on the community it will serve. Grain farmers, feedlots, and numerous other ag operations and their families will benefit. Skywave has been in contact with residents of the area discussing the possibility of completing a project such as this. It is clearly evident that residents of the project area need access to high speed internet provided over a fiber optic network. Even though the promise of great service has been anticipated by residents because of the outcome of other programs such as RDOF, the providers that won support have completely failed to fulfill their obligation to provide the promised services to all residents in the area. The proposed network will permanently provide gigabit services to all residents in this project area.

Note: Please see community engagement in Attachment M.