

Municipal Fiber Network - Budget Recommendation

Prepared for: Cornell Knight, Town Manager, Bar Harbor

Prepared by: Communications & Technology Committee

Date: 15 December 2020

Introduction

The Town of Bar Harbor completed an engineering plan for a fiber network connecting twenty-five town-owned locations. That study, the *Municipal Fiber Design Project*, was prepared by Casco Bay Advisors on September 30, 2019.

After completing the first phase of that project at the town's request, Casco Bay prepared and delivered a status update on November 13, 2020. Below are the recommendations of the Communications & Technology Committee in response to those documents.

Background

The engineering plan (attached) describes the requirements, provides estimates for development, and includes a bill of materials that would allow an RFP for construction to be issued for a fiber network connecting essential town-owned and operated locations. Such a network is necessary to ensure secure and uninterrupted town communications.

Current connectivity of town-owned locations relies on fiber owned by Charter Communications. Though currently there is no charge for the use of this fiber, recent federal legislation makes it likely that the Town of Bar Harbor would incur a cost of \$45,000 per year due to the changes in legislation and the franchise agreement. This loss would be an additional burden to the town's tax payers.

The fiber network engineering plan estimates that development of a town-owned network would cost approximately \$769,243 (including 20% contingency) with an annual operation cost of \$32,134. However, several partnership opportunities could significantly reduce those expenses. Casco Bay Advisors predicts that the development cost alone could be reduced by at least 50% through partnerships, and annual operating costs be substantially reduced, if not eliminated.

In order to address this situation, the Communications & Technology Committee recommended approaching the project in four phases.

- ~~Phase 1—Synergy Development~~ - COMPLETED

- Phase 2 - Make-Ready Planning & Refinement
- Phase 3 - Request for Proposals (RFP)
- Phase 4 - Construction Management

Phase 1, Synergy Development, was completed by Casco Bay Advisors in order to gauge the interest of partners and calculate more accurately what the actual costs to the town would be both for development and operating costs of a town-owned fiber network. This included the investigation of:

- Service Providers - There are service providers interested in offering services dependent on a fiber backbone that may be willing to enter into a public-private partnership for construction of the network that would dramatically reduce construction and operating costs for the town.
- NetworkMaine - Long-term access to a high-count fiber cable deployed by a consortium of service providers, including NetworkMaine, could eliminate the need for the town to construct its own fiber for portions of the project.
- Town of Mount Desert - Sharing costs with the Town of Mount Desert for the fiber along Eagle Lake Road would reduce overall construction expenses.
- Local Businesses – Some local businesses have expressed interest in leasing access to a fiber network indicating an opportunity to develop potential lessors.
- Acquisition of Duck Brook Fiber Rights from Charter (Spectrum) - As there are no other potential subscribers along this route and because it runs through National Park Service land, the town may be able to acquire this fiber and thereby reduce construction costs. This could be paid for by Utility Funds.

Casco Bay Advisor's findings during this initial phase are reported in the presentation *Bar Harbor Dark Fiber Network: Partner Discussion Status, Recommendations, Timeline and Budget* (attached).

Recommendation

This report indicates that building such a network not only achieves the goal of connecting town facilities but also enables at least the possibility of additional benefits to residents, at a later date, while reducing the overall cost through the partnerships and avoiding the \$45,000 per year cost due to changes in legislation and the franchise agreement. Therefore, Casco Bay Advisors recommends:

- Budget the full \$750,000 cost for municipal construction without a partner
- Town Meeting Approval (June 2021)
- Develop and issue an RFP for construction
- Seek PUC certification / Pole attachment agreements
- Adjust budget downward after RFP process
- Continue to evaluate proposals
- Finalize budget approval

Conclusion

The committee recommends that the Town of Bar Harbor budget \$750,000 for the construction and completion of phases 2-4 of the project resulting in the needed fiber network. The borrowing costs for the Town would be much less than for a Commercial entity. The committee is happy to answer any questions and invite Brian Lippold of Casco Bay Advisors to attend a town council meeting.

References

The following references are attached.

- *Municipal Fiber Design Project*, Casco Bay Advisors, September 30, 2019
- *Bar Harbor Dark Fiber Network: Partner Discussion Status, Recommendations, Timeline and Budget*, Casco Bay Advisors, November 13, 2020