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Comments for Somerville Public Utilities and Public Works committee meeting 8 May 202

Upgrade Cambridge is a grass roots community organizing effort formed in early 2018 with the goal of getting the City of Cambridge back on track building municipal broadband in Cambridge.

When I say municipal broadband, I mean a citywide fiber optic network that passes by every home and business. This is the gold standard for a network, not wireless, not Elon Musk's satellites, not cable, not twisted pair connections. Some of the fiber would be strung on existing poles, some pulled through existing conduit in the ground and some would be newly buried fiber. Such a network of optical fibers will last for decades, with minimal maintenance. The equipment would be regularly upgraded and the service can be easily upgraded without having to replace the fiber.

Cambridge is run by a city manager who is hired by the city council and our former city manager was opposed to municipal broadband. After several years of work we and the city council were able to convince him that there was a digital equity issue in Cambridge and that the city should conduct a study to better understand citywide municipal broadband - what are the costs, what such a system would look like, what potential business models would be, what kinds of public private partnerships should be considered, how long it would take to build, etc. The city contracted with a well-known consulting firm who has conducted similar studies for other cities and towns.

This study was released in March of this year and is [published on the city's website](#). We think that the study was very well done. It is thorough and financially conservative and the cost estimates provided factor in inflation with an estimated project start date in 2025 and 30% contingency. To summarize the report, the estimated cost of building a citywide network which would pass by every home and business in Cambridge would be between \$124 and \$161 million in 2022 dollars. Considering inflation that amount would be between \$149 and \$194 million by 2025, the earliest the city would likely start construction.

If the city moves forward, it is likely to want to attract a private partner to operate the network - to provide services, customer support, billing, etc. The city will be able to address some public policy issues with a partner contractually because the partner would be using the city owned fiber to deliver the services. Respecting net neutrality, certain privacy issues, and offering subsidized pricing for low income residents are examples of the public policy issues we would expect to be addressed.

In order to attract a private partner who would operate the network for the next 25 years, the city would have to invest \$150 million of the \$194 million cost. The remaining \$44 million would be invested by the private partner. In other words, a private business could get a reasonable rate of return on a \$44 million investment in the city but since a citywide network would cost \$194 million, so the city will have to invest \$150 million to close the gap.

There is more detailed cost breakdown in the report. The final costs could easily be lower for several reasons, the 30% contingency may be more than needed, competition in any bidding process may bring the costs down, etc. But understanding these costs is important to the eventual success of any project. Most municipal broadband projects are successful but there are a few that have failed and one reason for some failures is underestimating the costs which results in cost overruns or overestimating the take rate (the percentage of households who sign up) which results in revenue shortfalls.

Cambridge is not the same situation as you have in Somerville:

Cambridge has a single monopoly internet access provider, Comcast. There are several other providers but there isn't any significant competition for Comcast.

Somerville has 2 providers, Comcast and Astound (formerly RCN). Your 2 providers means that there is already some level of competition and all that brings, generally better quality, better service, and better pricing. It also makes it financially more challenging for a third player to enter the market.

Finally, Cambridge and Somerville financial situations are different.

My opinion is that a municipal broadband network could be great for Somerville. The financial calculations are different - partly because every city is unique in its geography and mix of utility poles and buried conduit, so the construction costs will be specific to your situation. And partly because of the existing duopoly of Comcast and Astound, a third entrant in Somerville will be entering a more competitive market, so it will be harder to sign up customers.

If you do want to proceed, I suggest that a local independent grass roots organization can help with generating interest and keeping the issue on the agenda. There is a need for education of residents, of the city councilors and the mayor and the city staff.

Upgrade Cambridge is a resource for city councilors, city staff, and residents. While we believe that municipal broadband will be an excellent investment for the city, which will pay off in many ways, we also believe that it must be considered carefully and openly, with a shared understanding of the costs and the benefits of the network.