



Niagara Regional Broadband Network
Better Internet is Here!

January 21, 2020

Niagara Region
Stuart Hendrie Chief Information Officer
Regional Municipality of Niagara
1815 Sir Isaac Brock Way
Thorold, ON L2V 4T6

Re: CRTC Broadband Fund Hybrid Fibre Optic/Fixed Wireless Proposal from NRBN

Dear Mr. Hendrie:

Please find attached proposal for your consideration. We very much appreciate Niagara Region's willingness to consider this important project to provide rural residents and small businesses in underserved and unserved areas of Welland, Port Colborne, Fort Erie and Niagara Falls. NRBN has been providing residential service to residents of Niagara using fixed wireless and more recently Fibre-to-the-Home (FTTH) services which means this proposal will enable NRBN to expand those services to areas that we do not currently provide coverage. Thank you for your support.

Warm regards,

Geoff Heinen

President



1 NRBN'S REGIONAL STRATEGY TO FILL BROADBAND GAPS



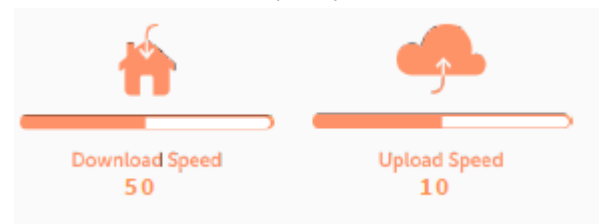
NRBN is municipally-owned and operated by Niagara Falls and Niagara on the Lake. NRBN has been in business for nearly 20-years supporting the community with our ultra-reliable high-capacity fibre optic connectivity to public sector and large commercial enterprises. NRBN has an extensive fibre-optic network throughout Niagara with over 700 route kilometers of fibre cable. We deliver critical connectivity on behalf of national carriers which has led to more competition, better service and lower rates for our customers.

NRBN now plans to bring this successful business model to bear on providing broadband Internet connectivity and other IP services to residents throughout the region, most particularly to unserved and underserved rural areas. In 2019 NRBN launched a pilot Fibre-to-the-Home (FTTH) project delivering residential service as well as launching rural residential fixed wireless broadband services from 4 tower locations in the Niagara region. Our residential service offering continues to grow in 2020 and this Broadband Fund proposal will enable NRBN to expand ubiquitous broadband coverage out to the rural areas of the region where these projects would not normally be viable.

2 CRTC BROADBAND FUND SUMMARY

NRBN believes that every resident in Niagara deserves reliable access to the Internet. Currently, for many rural residents and businesses, FTTH and highspeed fixed wireless Internet connectivity is not available. Therefore, the funding from the CRTC Broadband Fund will play an important role in bridging the digital divide, so that these rural residents and businesses may better contribute to and benefit from our regional economy and society.

Consequently, NRBN is currently submitting a funding application to the [Canadian Radio-television and Telecommunications Commission \(CRTC\) Broadband Fund](#). NRBN plans to provide under-served communities with affordable, scalable and reliable Fibre-to-the-Premise (FTTP) and fixed wireless services to meet and exceed the 50/10 Mbps universal service objective established by the CRTC for this funding program. NRBN will continue to make investments throughout the Region to serve the needs of rural residents and businesses beyond the funding program.



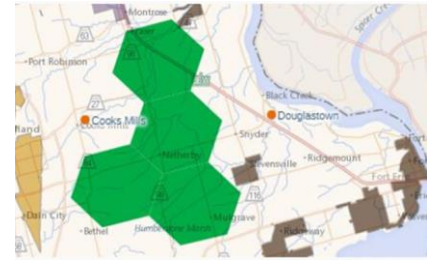
Broadband Fund eligible projects include: transport, access, and mobile wireless infrastructure. The funding application is due to the CRTC by March 27, 2020. Some \$750M has been allocated to this fund, throughout Canada, \$100M is to be spent in 2020. About \$1.7 billion over 13 years has been set aside in 2019 Federal budget for broadband so there will be future funding opportunities.



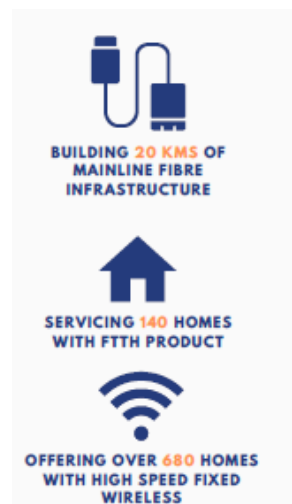
The more supplemental funding from other sources (Region, Municipalities, Private) the higher a project is rated by the fund reviewers. CRTC is looking for efficient use of funds and lower cost per home subsidies. Residential Internet monthly recurring charges to subscribers must be comparable to urban areas (in this case St. Catharines), for 5 years, with additional plans for low-income families according the Broadband Fund Application Guide.

3 CRTC BROADBAND FUND COVERAGE AREAS

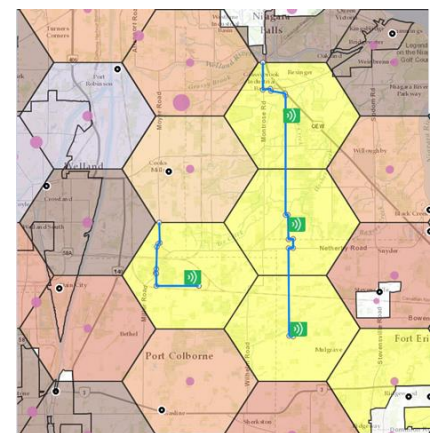
Each Broadband Fund hexagon represents 25 sq. kilometers of inhabited area which are currently without fixed wireline or wireless broadband access that meets the CRTC universal service objective of 50/10 Mbps. Orange dots represent communities that require high-capacity transport. Hexagons identified by the CRTC and selected by NRBN for this application cover the rural areas of Welland, Port Colborne, Fort Erie and Niagara Falls.



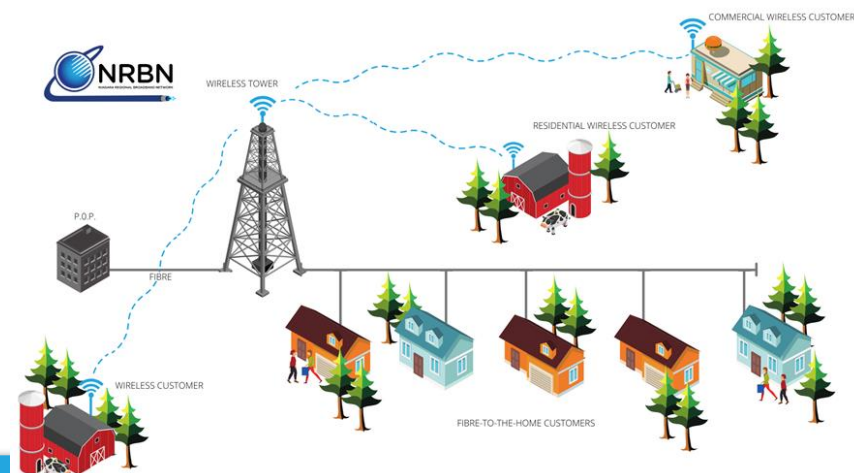
4 FTTH/WIRELESS SOLUTION FOR COVERAGE AREAS



If the funding application is successful, NRBN's initial hybrid Fibre-to-the-Home (FTTH)/Wireless solution will begin in the Cooks Mills area with NRBN offering 4 fixed high-speed wireless towers and construction of FTTH. Over 20 Km of mainline FTTH infrastructure will be built that feeds homes passed on the route as well as every tower.



Service to homes passed will be ~140, with FTTH. All remaining dwellings, ~680, will be serviced by reliable high-speed wireless access. Total coverage of ~820 dwellings throughout all 4 hexagon, which are all the dwellings in the hexes, thereby providing ubiquitous coverage.





5 FTTH/WIRELESS SERVICES AND RATES

The following are the rates for residential fixed wireless and FTTH that meet the universal service objective at rates comparable to St. Catharines and rates for low-income residents.

Residential Fixed Wireless and Fibre-to-the-Home Pricing

FAST 50	50/10	download /upload + Unlimited usage Free Wi-Fi	\$70.00
FAST 50	50/10	download /upload + Unlimited usage Free Wi-Fi	\$70.00

Residential Fixed Wireless and Fibre-to-the-Home Low Income Pricing

FAST 10	10/5	download /upload + Unlimited usage Free Wi-Fi	\$10.00
FAST 10	10/10	download /upload + Unlimited usage Free Wi-Fi	\$10.00

6 TOTAL COSTS TO BUILD THE FTTH/WIRELESS NETWORK

The total cost for NRBN to build the hybrid FTTH/Wireless network is about \$4 million.

"The CRTC determined in Telecom Regulatory Policy 2018-377 that funding will be provided under the Broadband Fund only for eligible costs, which include costs that are directly associated with project activities such as engineering and design, environmental scans and assessments, and the purchase and installation of equipment and infrastructure (including the provisioning of backhaul capacity and other one-time access-driven costs)."¹

7 FINANCIAL CONTRIBUTION REQUEST FROM NRBN TO NIAGARA REGION

The request to Niagara Region is for \$400,000 equal to about 10% of the total eligible project costs.

In addition, NRBN is requesting a letter of support for the project. Niagara Region's support will greatly increase the attractiveness of our proposal by demonstrating to the CRTC review committee that there is strong community support for our project and the project partners are sensitive to the CRTC's requirement to spend their limited funding dollars most efficiently as possible.

8 SUPPORT FROM OTHER REGIONAL PARTNERS

To date NRBN has received many letters of support from municipalities, CIO Consortium members and the public as follows:

¹ <https://crtc.gc.ca/eng/Internet/guid.htm>, page 37.



- City of Niagara Falls
- Town of Niagara on the Lake
- Niagara Health
- Town of West Lincoln
- Town of Lincoln
- Spark Niagara

NRBN will continue to solicit letters of support from remaining potential partners and will update Niagara Region on the status of the letters of support on March 26 prior the Regional Council meeting on March 27. The Broadband Funding application is due March 28.