



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

December 2023 – Broadband Updates

Concord Broadband is pleased to share the following updates and information from the past month. Please do not hesitate to contact us at broadband@concordma.gov should you have any questions, concerns, or feedback.

Operations

Recruitment continues for a new Network Engineer. We continue to screen candidates after having our last recruitment fall through.

The inventory was completed and filed. With around \$4,000 variance, that number represents a 42% reduction from last year. We thank the staff for their help with this improvement and will continue to take steps to reduce that number even further next year.

LCC Documentation

Concord Broadband has around 40 Local Convergence Cabinets (LCCs), which serve as convergence points between feeder fiber that goes to the data centers and the fibers that provide service to homes and businesses. These busy cabinets are incredibly important when setting up new customers, troubleshooting individual issues, or cleaning up after a large storm.

In the past, while Concord Broadband has had documentation identifying designed fibers to each location, there has been little to no field documentation on which ports were designed for which location. And, as you can imagine, over time due to troubleshooting or repair, fibers are moved without adequate documentation.

Dale Hartling, our Broadband Manager, has been working with his staff to produce up-to-date documentation on each LCC. This documentation includes both field documentation can accommodate labels, as well as databases that tie to the fiber network already mapped in the GIS system.

Field labels will be deployed by staff to each LCC when they are all complete.

In addition to the documentation, we are taking pictures of all cabinets, poles, mounts, and surrounding areas, which can be incredibly useful for teams to make plans for upgrades or repairs without having to take a trip to the field.

Upcoming Maintenance

There is no maintenance currently scheduled, but we are planning on scheduling one for February or March. We will be targeting the Town website, News and Notices email subscribers and posting updates on the website below.

The purpose of the upcoming maintenance is to upgrade the firmware on all Broadband devices, which will impact service for 5-15 minutes (between 1-4am).

You can learn more about maintenance windows here:

<https://concordma.gov/3144/Broadband-Maintenance>



Figure 1: Local Convergence Cabinet (LCC)

Financial reporting and modeling

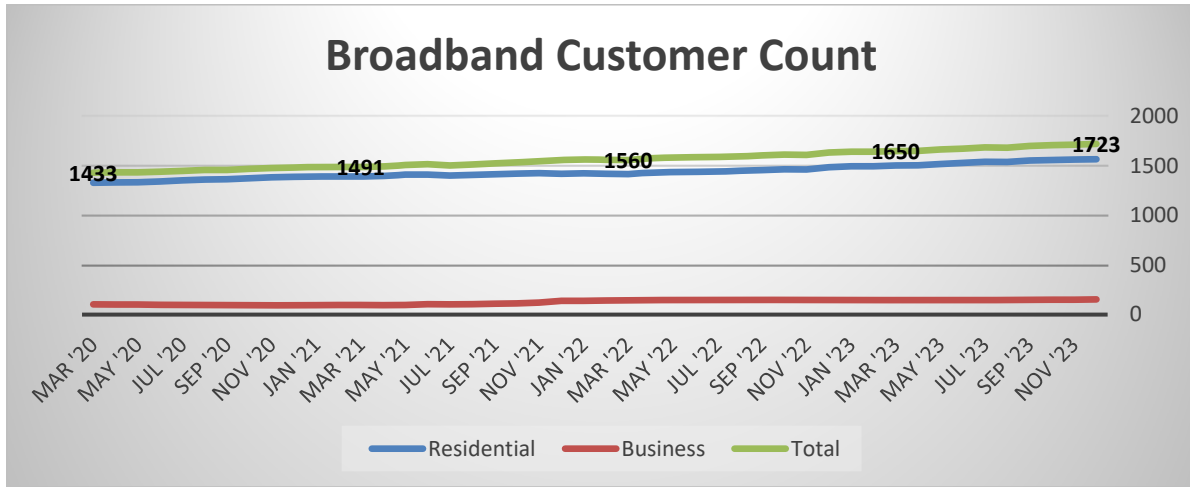
While Concord Broadband is a subsidiary of the Concord Municipal Light Plant, it has several important differences: there is private sector competition for internet service, and universal access is not guaranteed. These distinctions mean that we need to treat the financial aspects of the Broadband enterprise differently, whether in the calculation of capital projects for expansion or when considering pricing for services.

In its infancy, several people contributed to the models proving that municipal broadband would be a good fit for Concord. And, the good news is they were right! But in the last 10 years there have been many changes, both in the market for internet and with the financial implications with over 1,700 paying customers.

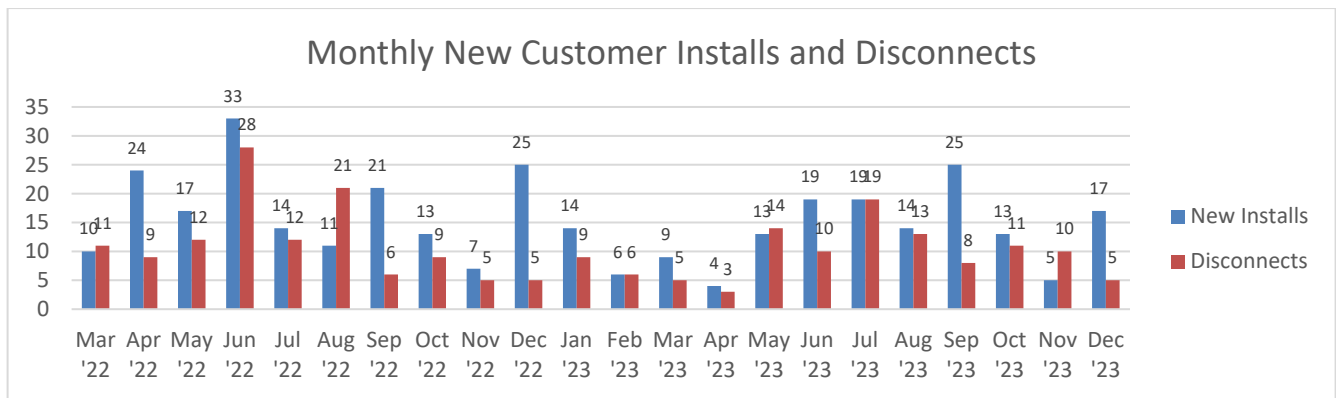
The leadership at CMLP, including the Director of the Light Plant, the Chief Technology Officer, the CMLP Financial Manager, and the Broadband Manager, have been working on improving the reporting and analysis of broadband's finances. We have also brought back a couple familiar faces into the fold to ask them questions and get assistance with the updating of models so that we can continue to make sound financial decisions. This helps ensure Concord Broadband responsibly expands access while continuing to be cashflow positive.

This behind the scenes work is not normally visible to the public, but we are very grateful for everyone's contributions and glad to extend our communication and transparency to all aspects of this community resource.

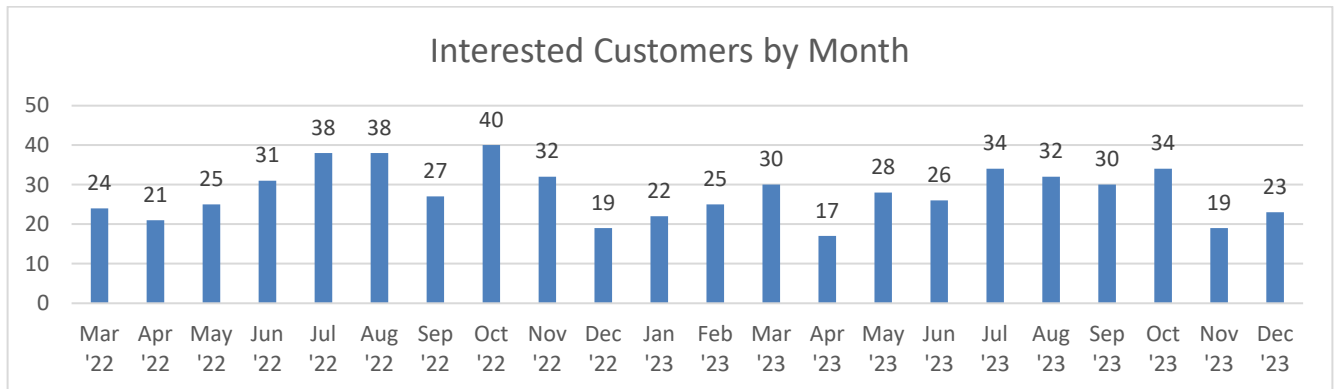
Monthly Metrics and Business Data



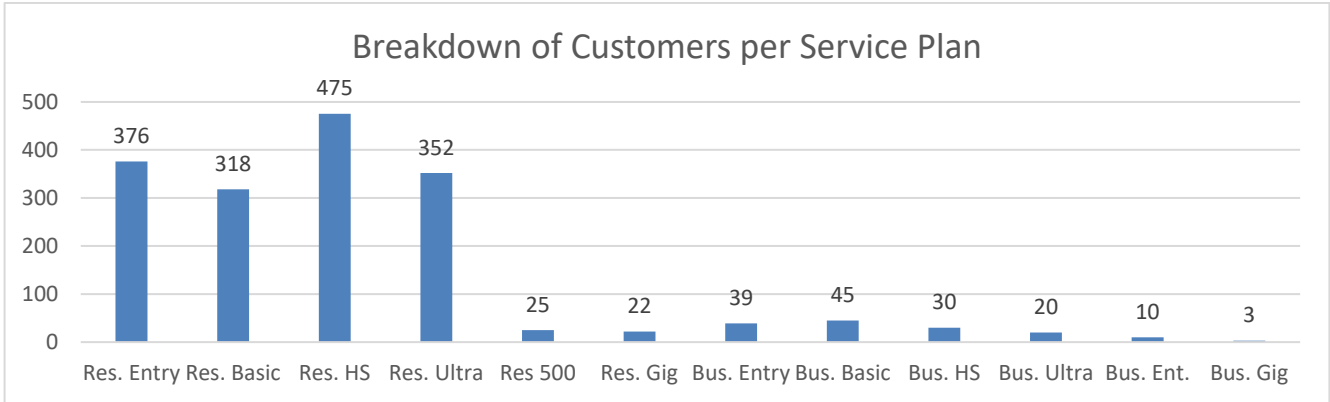
(Customer count: March 2020 – December 2023)



(The number of new installations and disconnects completed each month.)

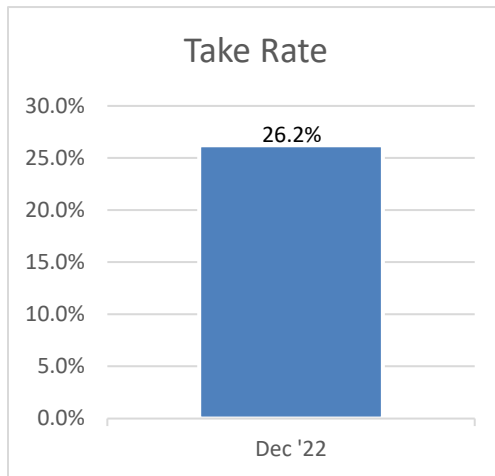
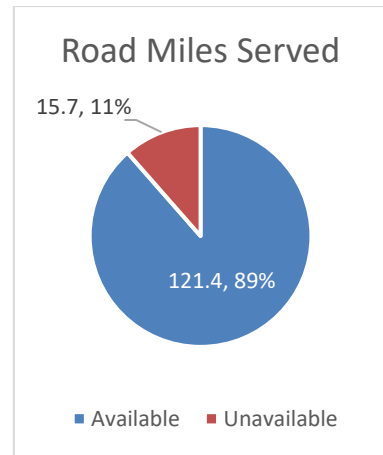
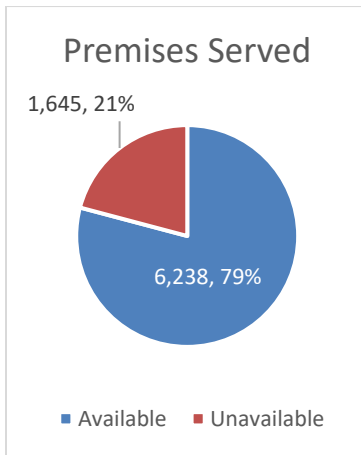
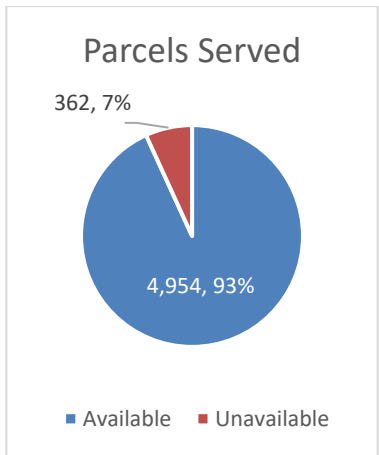


(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 12/31/2023.)

Quarterly Metrics



(As of 12/1/2023)

Appendix

Fiber Broadband Completion Task Force's Draft Report Goals

Goal	Type	Priority	Responsible Party	Additional Info.
Policies (p.39)				
• Universal Access	Policy	Highest	Select Board/Town Meeting	
• Expansion outside current territory	Policy	Low	Select Board/Town Meeting	
• Support Economic Vitality, Sustainability, Equity & Inclusion	Policy	High	Select Board/Light Board/TM Economic Development	Rate subsidy available
• Affordable Housing	Policy	Medium	Select Board/Housing Groups	Rate subsidy available
• Public Safety	Policy	Medium	Select Board/Town Manager	
• Education	Policy	Medium	Select Board/School Dept.	
• Government Access (PEG)	Policy	Medium	Select Board/PAAC	
Recommended metrics for tracking (p.41)				
• Parcels served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Premises served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Road miles served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Subscribers	Metric	High	Town Staff/Light Board	Complete; will report monthly
• Take rate	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Churn	Metric	High	Town Staff/Light Board	Complete; included in monthly report
• Installations	Metric	Highest	Town Staff/Light Board	Complete; will report monthly
Governance (p.39)				
• Track progress against completion	Metric	Highest	Light Board/Town Staff	We have been cleaning up the Master Address Table and will have something new to report soon. (11/2023)
• Rate of return policy	Policy	High	Light Board/Town Staff	
• Financial goals with regular reporting	Policy	High	Light Board/FinCom	
• Retained earnings and reserve policy	Policy	High	Light Board/FinCom	

Goal	Type	Priority	Responsible Party	Additional Info.
Strategic Planning Goals (p.43)				
• Marketing and growth	Metric	High	Light Board/Town Staff	
• Business return	Policy	High	Light Board/Town Staff	
Budgeting Process for Fiber Expansion (p.41)				
• Expand to fill existing opportunities	Planning	High	Light Board/Town Staff	
• External funding sources	Research	Medium	Light Board/Town Staff	Working on this
• ARPA Relief Funds Allocation, incl. Lost Revenue	Finance	Highest	Select Board/Town Manager	ARPA funds managed through the budget process.
• Review/Confirm Internal Loan Findings	Finance	Highest	Financial Audit Comm/Staff	Complete
• Review and Rescind PILOF to MMN	Finance	High	Select Board/Town Manager	Complete
Capital Planning Process (p.42)				
• Review/Revise Debt financing schedule	Policy	Highest	Light Board/Town Staff	Working on this; do to positive financial situation, anticipating being able to repay faster than expected.
• Quantifying cost of expansion	Planning	Medium	Town Staff	Working on this
• How to fund expansion	Planning	Medium	Light Board/Town Staff	
• Revise/refine methods for computing ROI	Planning	Medium	Light Board/Town Staff	
Construction and Logistics (p.42)				
• Vibratory plow – direct buried fiber cables	Operations	Medium	Town Staff	Working on this
• Revise/Refine Communication conduit construction standards and guidance	Policy	Medium	Town Staff	
• Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric	Planning	High	Town Staff	Working on this