



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

May 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

We have had luck lately with interviews for the vacant Network Engineer position. We have a 2nd-round interview scheduled later this week, and recently we have had the opportunity to use a new recruitment tool that should increase our ability to get qualified candidates.

Lately we have been working with our mapping and GIS consultants to improve the documentation of our fiber network. These databases serve as the foundation of our business and allow us to respond to new customer requests, perform troubleshooting, or determine if we have fiber available between two points in Concord.

These new tools will allow us to export documentation that can be stored inside pole-mounted cabinets, allowing for faster response times during incidents and quicker connections when customers request new service.

New Advanced Metering Gateways

The Concord Municipal Light Plant has long been working toward deploying smart electric meters to all current customer meter locations. These advanced meters will create a self-healing wireless mesh network of meter data that gets funneled to a centralized server through a series of 15 gateways installed around Concord. These gateways are connected to the broadband network with ONTs similar to the ones used by our customers.

Before those 15 gateways could be connected, a team of Light Plant and Broadband staff had to learn how to assemble the weatherproof units in a lab environment. Eaton, the advanced metering manufacturer, came on site to help integrate the gateways with client computers and the cloud-based host, and then it was up to Lineworkers, Electricians and Broadband Technicians to get the units mounted, the fiber spliced, and the hardware provisioned.

It was an enormous coordination effort by staff who were supportive and helpful at every step of the way. Broadband Manager Dale Hartling documented the units as they were provisioned and provided regular updates to the team about their installation. As of Monday, June 12, all of the units were installed and operational.

Upcoming Maintenance

The network team has been busy at work cleaning up wiring at Concord data centers, including the one at the Light Plant. This work takes place after hours, and we are extremely grateful for the impactful work done. Messy environments don't just look bad – they are more difficult to troubleshoot and expand.



We now embark on the next phase of the Advanced Metering project knowing that we have the network backbone in place and ready to support the extensive collection of customer meters. Thank you to all of the team members that worked on this project!



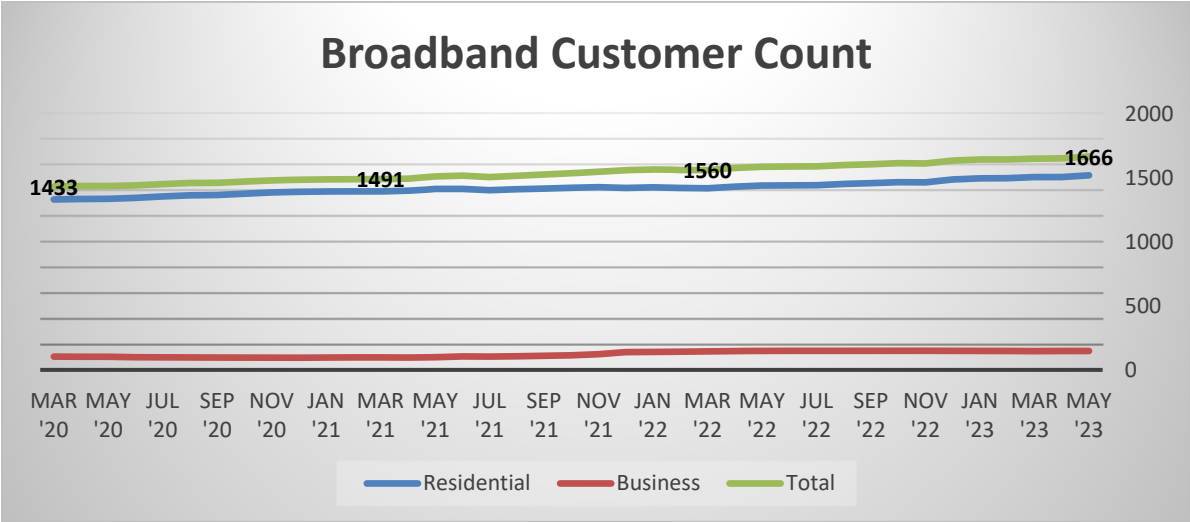
Figure 1: Advanced Metering Gateway

Affordable Connectivity Program

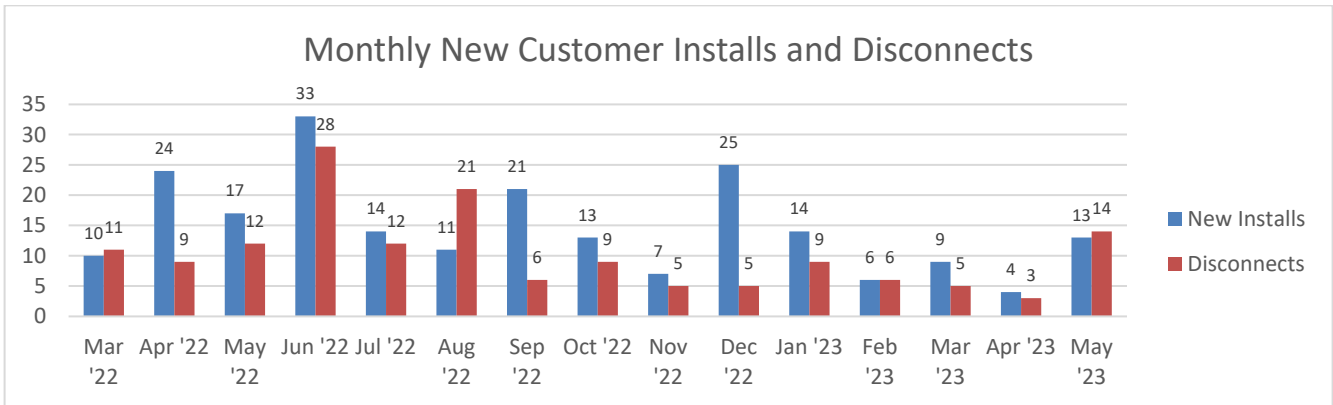
Concord Broadband is happy to announce we have a few customers (including one who has been approved already) interested in this program, which provides up to a \$30/month subsidy for those who qualify. We have access to the portal and are learning how to collect and transmit the data necessary to the USAC, which administers the program for the FCC.

Stay tuned for further outreach in coming months now that the program is up and running.

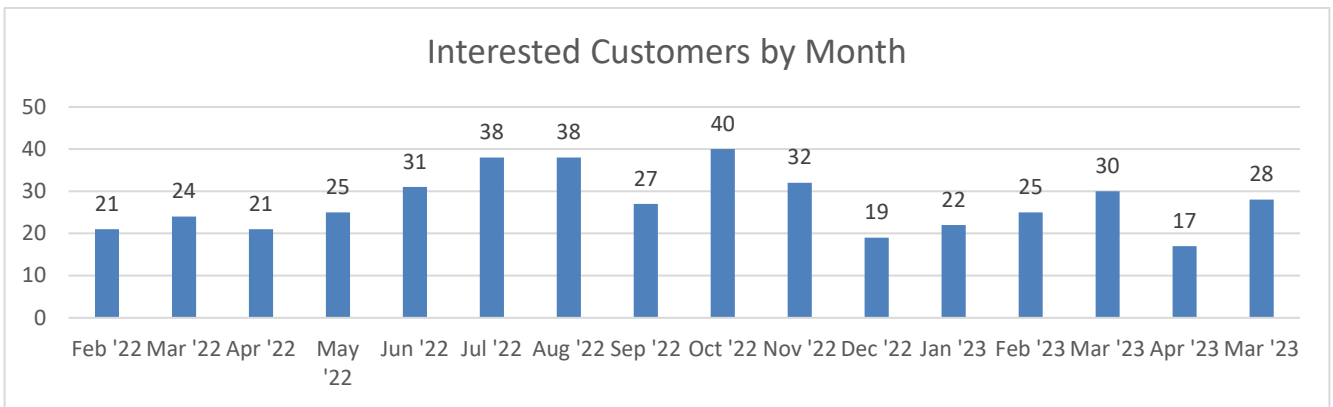
Monthly Metrics and Business Data



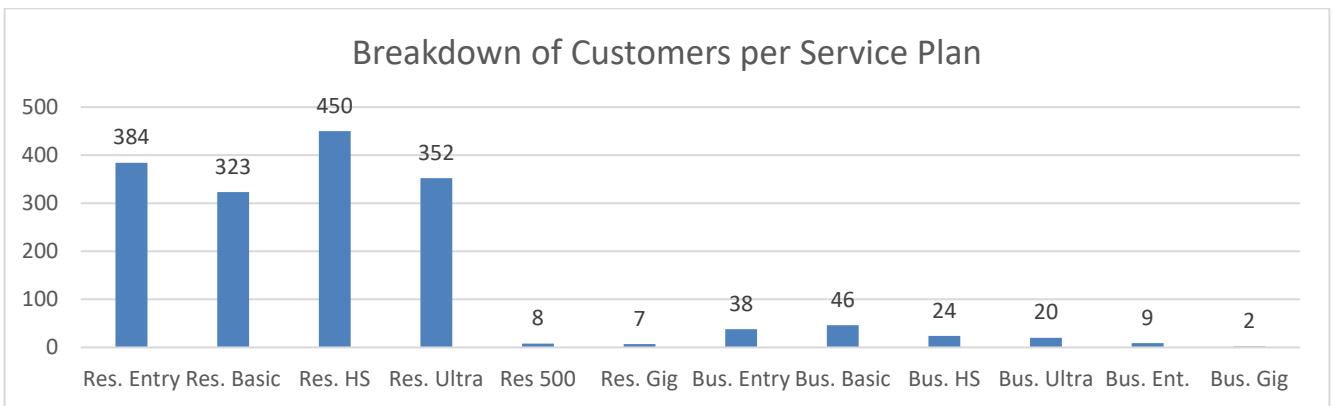
(Customer count: March 2020 – May 2023)



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

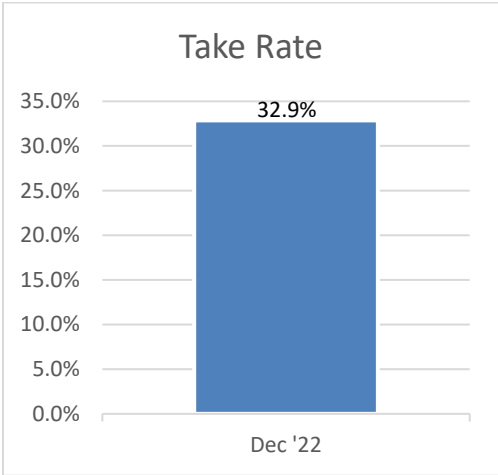
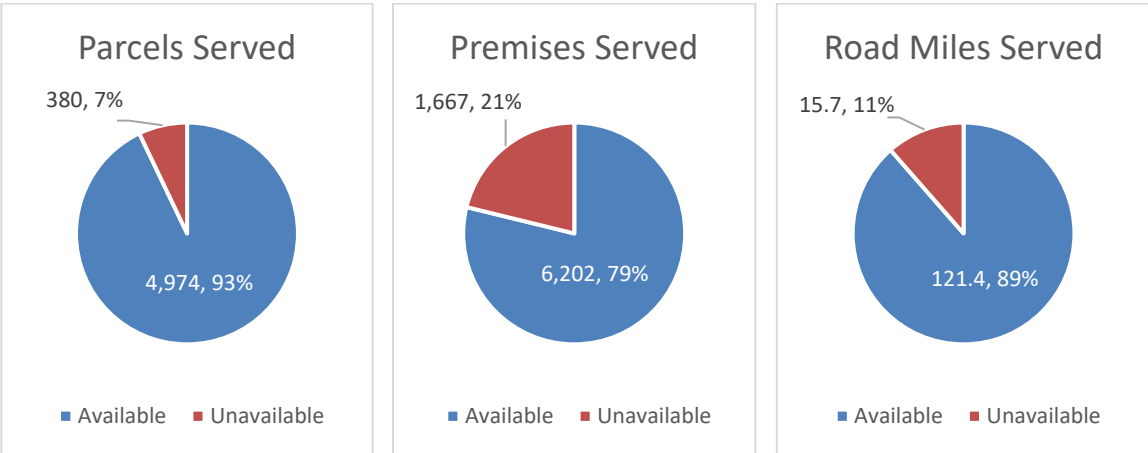


(This is the number of individuals who complete the Concord Broadband interest form on the Concord website, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 5/31/2023.)

Quarterly Metrics



(As of 9/30/2022; updated numbers will come in a future update)

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	Working on this; update expected soon
• 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	Working on this
• 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; update expected soon
• 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