

2021 ANNUAL REPORT



nrtc

Member driven. Technology focused.

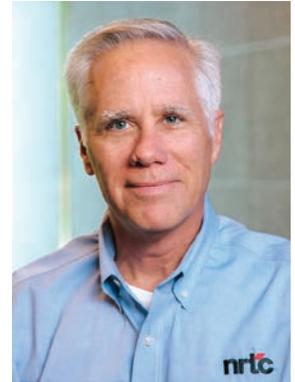
Letter from the CEO

Lately, I've been thinking about NRTC's tagline to our logo: "Member Driven. Technology Focused." Of course, I believe that our NRTC member cooperatives, and our independent telephone companies, are deeply invested in a member and community-centric approach. But I wondered - how would our own employees react to this simple question: what does it mean to be Member Driven? Here are some of their responses:

"Our members are our owners. We have a far greater responsibility to our members than any regular company would have just simply to its customers."

"It's about investing the time required with each member in order to understand their specific needs."

"About helping our members win in the marketplace ... building services ... building features that allow them to be the best they can be."



Tim Bryan, CEO

I think the response that most closely matches my own feeling was from Shawn Sweeney, chief operating officer of NRTC Broadband Solutions, who said, "It's not just a phrase or one-time focus. It's engrained in every action that we do."

You can see this member-driven spirit at NRTC Broadband, where our staff are helping members build, own, and operate a generational asset for their cooperative, and their community. We have completed nearly 275 unbiased feasibility studies to ensure that our members have a clear-eyed view of the financial consequences of their project. And, we have developed a best-in-class electronic design process to join the best network architecture with the most cost-effective way to construct and operate a broadband network. Each NRTC project is tailor-made for our member; we left our cookie cutter tools behind!

Broadband planning success inspired us to keep going - so we've taken the feasibility study and model and re-designed it to support smart grid technology planning. Just like broadband, members want an honest assessment of the many available technologies, but this time for the electric side of their business. Our technology planning solution helps members create the most value for their utility, and once again, each plan is specifically suited to a cooperative's service territory, rate design, and existing infrastructure. Launched late in 2021, our solution has been requested by dozens of distribution cooperatives as well as a few G and Ts, and we look forward to connecting with our members in 2022.

Another example of the member-driven spirit in action was visible at NRTC Managed Services. Last year our call centers' average speed of answer (ASA) rose to almost four minutes as COVID-19 and weather-related issues slowed our ability to fully staff our help desk staff. For some companies, four minutes would be a plenty of time to answer the phone, but we know our members demand better. We redoubled our hiring efforts, increased incentives,

augmented hourly pay, and promoted mentorship among our staff. By November 2021 we reduced ASA to 50 seconds.

And here’s another call center story. [As I described at our 2022 annual meeting](#), one NRTC employee went above and beyond to help a stranded woman get home for Thanksgiving dinner. I’ve heard of more than one occasion when NRTC has been there when there was nobody else to call.

I’m proud of all these examples, but what makes me ever prouder is that our members and employees recognize our efforts, too!

Eighty-two percent of respondents to a 2020-member survey agreed with the statement: “NRTC has members’ best interests in mind.” I won’t be happy until that number is 100 percent.

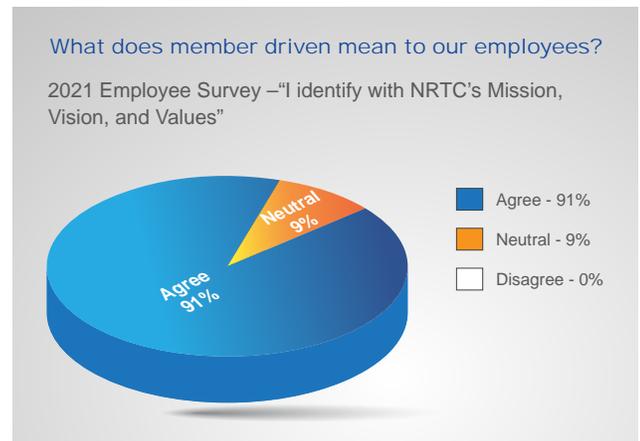
Ninety-one percent of our employees positively agreed with the statement, “I identify with NRTC’s mission, vision and values.” I won’t be happy until that number is 100 percent as well.

In this report, we highlight the events and achievements of 2021, and as always provide our financial results. I’m pleased to report revenue of just under \$250 million, with cash net income of \$14 million. But better yet, every word and every number in our report, and every one of our 885 employees, has “Member Driven” at the heart of what we do.

Sincerely,



Tim Bryan
Chief Executive Officer



2021 NRTC Board of Directors



Left to right, top row: Jim Matheson; David Pierce; Shirley Bloomfield; Bryan Lightfoot; Shannon Clark; Jason Dandridge; Mike Malandro; Dustin Durden; Robert L. (Bob) Hance; Chris Seubert

Second row: George Kitchens; Lynn Hodges, secretary-treasurer; Tim Mergen, chairman; Tim Bryan, CEO; Jimmy Todd, vice chairman

Not pictured: Raymond Henagan; J. Andrew Don

Letter from the Chairman

Traditionally, an annual report provides a glimpse into the financial performance of an organization. And, within that backdrop, I'm pleased to say that NRTC's performance in 2022 was solid. Your cooperative once again was a good steward of the financial resources you entrusted to them, grew its portfolio of technology solutions and returned patronage to those members who engaged with NRTC.



Tim Mergen, Chairman, BOD

More meaningful to me, an annual report provides an opportunity to reflect on the focus – the heart – of an organization. That's what excites me when I share the NRTC story with members.

NRTC continues to remain focused on developing and implementing technology solutions that meet members' needs. In the board's interaction with NRTC leadership and staff, the member-driven mantra is evident.

But, what does member driven really mean? Or, better said, what does it mean for you?

First, NRTC creates customized solutions for each member, recognizing the unique challenges, opportunities and goals you have. You've heard the phrase, "if you've met one cooperative, you've met one cooperative." That could be broadened to say, "if you've met one NRTC member..." While many members share common principles, no two are exactly the same. So, why should NRTC's approach be?

Second, NRTC strives to be a partner; not a vendor. Vendors come and go and often focus on one element of a project. Some care more about their interests and financial gain than yours. NRTC looks at "the big picture" – your entire project – evaluation, design, implementation and operations. NRTC's goal is to make technology not only affordable but sustainable, providing long-term value for you.

Lastly, cooperative principles guide everything NRTC does. NRTC staff knows who they serve and listens to the voice (and needs) of its members. Going forward, that voice will be amplified as NRTC implements an exciting Member Experience initiative.

A great deal of work occurred in 2021 to analyze everything NRTC does with, and for, members to make sure they're having a positive impact. NRTC has developed a plan for more comprehensive member outreach and feedback gathering as well as improved processes and tools to better engage with you. I look forward to seeing the results of this effort this year.

On behalf of the NRTC board of directors, it is an honor to represent you and ensure that NRTC continues to deliver on its member-driven mission for you.

Sincerely,

Tim Mergen
Chairman, NRTC Board of Directors

2021 Highlights

A Productive Year of Letting Nothing Stand in the Way

COVID-19 influenced rural electric and telephone business decisions for a second year. Most NRTC staff spent 2021 working at home; many industry meetings cancelled or, like NRTC's 2021 annual meeting, convened online only. By the end of 2021, however, many NRTC staffers were back on the road meeting with members and NRTC had begun preparations for an in-person 2022 annual meeting.

A legacy of COVID will be widespread appreciation for communications technologies, and greater awareness of the need for rural connectivity. All of NRTC's business divisions, in spite of pandemic difficulties, overcame the challenges. It was a productive year.



NRTC managed the NEK Community Broadband project providing broadband to remote wooded northeastern Vermont, a partnership that also includes NRTC member Waitsfield and Champlain Valley Telecom.

Taking on Broadband Planning, Construction and Operations

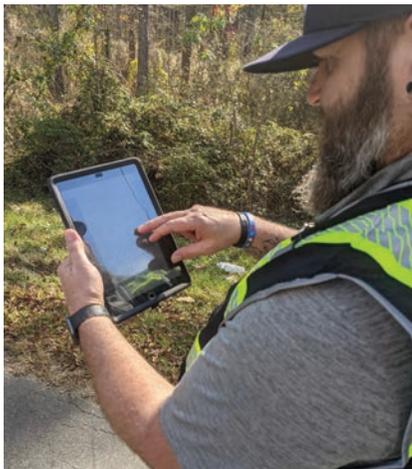
NRTC Broadband Solutions had a hand in several broadband projects during the course of 2021, some of which began before the beginning of the year and some that are ongoing. There was the NEK Community Broadband project in Vermont, where NRTC is handling design and construction management while NRTC member Waitsfield and Champlain Valley Telecom is covering ISP duties. Construction began late in the year and progressed rapidly to qualify for federal support.

In Mississippi, NRTC helped Dixie Electric Power Association build more than 1,000 miles of its fiber network in 2021 serving about 3,000 subs before the end of 2021. (The sub count rose to 5,000 two months into the new year.)

Also in Mississippi, NRTC assisted with construction for Tishomingo County Electric Power Association's fiber network. Tishomingo won more than \$10 million in support over 10 years for the project by joining NRTC's Rural Digital Opportunity Fund (RDOF) bidding consortium. NRTC helped Southeastern Indiana REMC launch its broadband project in 2021. The co-op lit its first customer in July and had reached 1,000 subs by early 2022. Thumb Electric in Michigan, with NRTC consulting assistance, acquired a local company which led to more rapid rollout of its broadband service with network assets, existing subscribers, staff and back-office systems.

NRTC offers planning services, including feasibility studies at the beginning of a broadband project. NRTC project managers often see members through the construction phase, and later NRTC assists with operational support to serve broadband subscribers. At the same

The American countryside is filled with scenes of communications infrastructure under construction. NRTC is helping members design projects, attain financing, build networks and help with day-to-day planning.



time, it is continually enhancing its staffing and tools to assist with day-to-day operations.

Monitoring the details on the network that need constant attention is an important element of operational assistance. Chris Beatson of NRTC Managed Services and Marcellus Nixon of member co-op United Cooperative Services in Texas spent much of 2021 jointly developing an operational intelligence platform. Beatson compares the platform to electric utilities' SCADA systems. Layers of data from the network converge in one place along with data from several external sources – weather forecasts, billing systems, social media, call centers and others. The ISP responds to emergencies and all other situations more quickly and efficiently with a dashboard of all relevant information immediately available.

Federal and State Support Beyond Anything Seen Before

Just before the start of 2021 Congress passed a consolidated appropriations bill that included a \$300 million broadband infrastructure grant program, a \$1 billion tribal connectivity program and renewed funding for existing FCC and U.S. Department of Agriculture broadband support programs. A few months later, the president signed the American Rescue Plan with about \$360 billion to states and localities for Coronavirus relief projects. The bill specified that states could choose to apply funds to broadband infrastructure projects. The November passage

of the Infrastructure Investment and Jobs Act set aside another \$65 billion for broadband programs, including the \$42.5 billion Broadband Equity, Access, and Deployment Program (BEAD).

With so much cash suddenly becoming available, the complexity of applying for support grew just as rapidly. The new reality means NRTC members must keep track of funding rules from federal agencies within the Commerce Department, Agriculture Department, the U.S. Treasury and the FCC, as well as new rules originating from each state capital.

NRTC reacted to this challenge by forming NRTC Funding Services with a dedicated staff to help members navigate the many new programs and funding opportunities. Teresa Fergusson, formerly the director of Federal Broadband Engagement for the Colorado Broadband Office, joined NRTC to lead the effort. Over the second half of 2001, NRTC began offering a steady diet of informational webinars, state funding alerts and other member assistance.

NRTC also continued to monitor and act on the existing broadband funding programs. Several NRTC members joined the NRTC's RDOF bidding consortium and put in the low bid to gain funding eligibility in the FCC's 2020 reverse auction. But early in 2021, many complained that FCC rules allowed companies that were technically and financially incapable of building broadband networks to participate in the auction. NRTC

[joined with NRECA to file an in-depth paper](#) with the FCC detailing all irregularities.

The FCC in the summer was ready to begin officially authorizing auction winners. Seventeen NRTC consortium members received authorization for approximately \$131 million in support before the end of the year with more announcements expected in 2022.

Gathering the Tools for Smart Grid Planning and Implementation

NRTC spent 2021 assembling tools for smart grid projects and by year-end established a smart grid technology planning service. It also joined with CFC to build a [Rural Electric Cooperative Smart Grid Benchmarking Report](#). The report is a compendium of useful data gathered from 60 rural electric cooperatives who had experience with deploying AMI, outage management systems, demand response programs and many others. Co-ops revealed that deploying these technologies improved service reliability and member satisfaction.

To augment its smart grid solutions, NRTC early in the year formed a partnership with Armada Power, which has developed water heater management and

thermal storage technologies. The Armada systems are the basis for demand response capabilities that save consumers up to \$180 a year.

Growth in solar technologies among co-ops slowed during the pandemic. NRTC created the new position of director, Smart Grid Energy Solutions, to promote new interest in alternative energy. Milton Geiger, who worked on solar and battery storage projects at Poudre Valley Rural Electric Association in Colorado, joined NRTC in June to fill the new role.

Along with new funding for broadband, the Infrastructure Act also set aside money to promote smart grid projects and other utility improvements. Like broadband, smart grid represents a host of technologies that depend on wired and wireless communications networks. The Act includes more than \$30 billion for smart grid, grid resiliency, R&D and related programs. It also includes more than \$12 billion for electric vehicle (EV) programs, such providing EV charging stations and electric school buses, and more than \$20 billion for a long list of clean energy programs.

NRTC Funding Services began examining member opportunities to participate in these programs as the year closed.



The NRTC/CFC Smart Grid Benchmarking Report compiles the experiences of 60 rural co-ops and is a must-read for those planning AMI, DERMS, solar, demand management and other utility projects.



Staying Ahead of Growing Cybersecurity Threats



NRTC Managed Services growing list of software solutions and training programs help members protect themselves from ransomware, phishing and other serious cyberattacks.

The past two years have been marked by major cyberattacks, menacing government agencies, large corporations and individual internet users. Perhaps the most noteworthy incident was the May ransomware attack on the Colonial Pipeline, which shut down pipeline operations for five days and created temporary gasoline shortages through much of the East Coast.

NRTC Managed Services maintains a continual watch for cyber threats. It offers software systems to help rural ISPs do self-analysis of their security systems, build defenses against the most serious attacks and train staff to avoid falling for hackers' tricks. NRTC partner KnowBe4 develops ransomware protection systems and helps educate members on how to avoid attacks.

Ransomware attacks cost users an average of \$300,000, according to UNITEL Insurance, which hosted an NRTC webinar on cyber insurance. NRTC offers a Cybersecurity Insurance Checklist to help members assess how much coverage they need to protect themselves.

Over the summer, Managed Services added two new cybersecurity service packages for members. TechShield Support builds on the existing TechShield package with a Wi-Fi assessment application and 24/7/365 premium tech support from experienced

technicians. TechShield Professional Support for business adds advanced endpoint protection, cloud backup and a password manager.

Mobile Service Helps Develop Specialized Devices

NRTC Mobile Solutions offers a mobile virtual network operator (MVNO) service that allows members to provide mobile voice and video to their customers over established national networks, avoiding the cost of building a wireless network. It also provides other services, including a highly efficient back-office system for billing, inventory management and accounting; marketing assistance and scalable access to affordable smartphones and other mobile devices.

In 2021, Mobile Solutions combined those capabilities to help Gabb Wireless develop specialty phones and smart watches for kids. The goal was to produce phones that operated in a closed system and provided a safe online environment for users aged 8 to 18. Parents can block unsafe social media and other content, take steps to prevent cyberbullying and control kids' total daily screen time.



NRTC is happy to work with innovators, such as Gabb Wireless, which used the unique characteristics of NRTC Mobile Solutions to perfect kid-safe mobile phones.

Mobile communications complements many other communications technologies and opens up potential joint marketing opportunities with other services. NRTC Mobile Solutions in 2021 began crafting new ways to apply these flexible approaches to its MVNO service and plans some exciting announcements in 2022.



Member driven. Technology focused.

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DISCOVER THE BENEFITS OF MEMBERSHIP

As a member of NRTC, you will join more than 1,500 other rural electric and telephone utilities that have a stake in development of products and services that can help you grow your business, get closer to your customers and build revenue. NRTC proudly serves the advanced technology needs of its members.

MEMBER OWNED AND CONTROLLED

Our Board of Directors is comprised of representatives from the national rural electric and telephone industries, the CEO of the National Rural Electric Cooperative Association (NRECA), the Governor and CEO of the National Rural Utilities Cooperative Finance Corporation (CFC), and the CEO of NTCA, The Rural Broadband Association.

CAPITAL CREDIT RIGHTS

All members and affiliates are eligible for payment of capital credit refunds based on the volume of business each patron conducts with NRTC during the fiscal year.

FOR MORE INFORMATION

To learn more about NRTC membership or our products and services, please contact NRTC at 866-672-6782.