



2023 ANNUAL REPORT

Harriman Utility Board - PO Box 434 - 200 N Roane Street - Harriman, TN 37748 - (865) 882-3242 - www.hub-tn.com - info@hub-tn.com

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Mission:

To enhance our community through exceptional service.

Vision:

To inspire social and economic improvement through intentional action.

Core Values:

- Commit to providing exceptional customer service.
- Consistently strive to improve the quality, safety, and reliability of our services.
- Collaborate with others to encourage community growth and improvement.
- Become a leader in our industry, improving the quality of life for our customers and inspiring others by our superior results.
- Methodically plan our actions in keeping with our mission.
- Achieve greatness through discipline and consistency, not luck.

A Message from the General Manager

To the Community we serve:

2023; it was certainly a year for the books! We ended last year focused on perseverance; this year, we've been developing a strategy for continued success. 2023 marked many milestones, not the least of which was the culmination of my first five-year term as General Manager, and the Five-Year Strategic Plan HUB has been on ever since. This in-depth approach focused on the mission, vision, and core values spoken to at the beginning of this, and every Annual Report issued since 2018. Though we can (and have) highlighted many successes stemming from that plan; there is much left to do, and we are well underway with strategic planning for the next five years and beyond!



One of the keys to our success over the last five years was consistency. It was perhaps very well-timed that we committed to this course just prior to the events of 2020, and the overwhelming impact that pivotal year had on our community, nation, and world. HUB weathered the COVID-19 Pandemic while executing on a number of projects aimed at modernization and efficiency. We began taking HUB into the forefront of modern utility technology with our Advanced Metering Infrastructure project, while continuing to see to the maintenance and refurbishment of existing infrastructures. We made the most comprehensive update to HUB policies in decades, and made a structured approach to an equally comprehensive shift in our organizational composition and leadership. Five years in, HUB is vibrant, engaged, and (I hope) closer to the community we serve than ever before.

Over the next five years, the focus is going to be bringing a lot of the “nets” we cast in 2022-2023 in to “land”. HUB is the recipient of over \$15,000,000 in combined state and federal grants, mostly awarded in partnership with others (City of Harriman, Town of Oakdale, Roane County, Morgan County, and Crab Orchard Utility District). This funding represents projects already well underway to improve existing water distribution and sewer system integrity, refurbish or replace aging water pumpstations, expand water and sewer service to underserved portions of two counties, serve new residential and commercial customers, and most exciting of all... interconnect our water system with the Crab Orchard Utility District’s water infrastructure.

The award of these funds represents years of hard work by many individuals, but we simply couldn't have been as successful as we were without decisions made well in advance. It was a combined process of identifying areas of improvement, defining the resources needed to pursue funding, making investments in both people and equipment to deploy those needs, then committing to the administrative, legal, and financial disciplines these funds obligate us to. Which brings us to today. Here. Now.





Most of these projects must be completed by September of 2026. That might seem like a long way away, but in reality, it's right around the corner. In approximately the same time it took us to acquire this funding... we will be required to have completed all the work associated with it. As of today, much has already been accomplished. HUB has partnered with professional firms such as Community Development Partners LLC to assist our staff in navigating the complex federal and state grant landscape. We have also contracted with professional engineering firms such as Cannon & Cannon Inc., C2RL Engineers Inc., and Smith, Seckman, and Reid Inc. to develop plans, produce engineering packages, and prepare bids for contracting. For a number of these projects, we've even selected firms who are currently working on site, such as HL Construction and Adams & Sons Inc. However, challenges persist. The legacy of COVID-19 remains in the form of disrupted supply chains, thin labor markets, and firms inundated with extensive backlogs of work that was put "on hold" while the world determined how to move forward. Many critical components that used to be easily acquired within weeks, are now taking months... if not years to procure. This has created ancillary issues in the form of increased focus on quality control and materials compliance. We are working through all of this in the midst of one of the greatest shifts in the U.S. workforce in a generation. As more experienced workers retire, and younger employees step into increased responsibilities, having a solid "plan", i.e. strategy, will become more important than ever.



No one can predict the future, but there are some things that are abundantly clear. If HUB is going to continue to offer the highest quality services and the most affordable rates possible... we will need to continue to think adaptively. This will include attracting more residential and commercial customers; who in turn, will expect more from a growing city and county. HUB is already looking ahead to those needs, taking steps to fund projects that will increase the quality, reliability, and resiliency of our current utilities. And possibly the most exciting thing is we are well on the way towards a widescale fiber broadband project within the next few years.

HUB is prepared to meet these challenges. I'm thankful to the HUB Board, the City of Harriman, and our partners in local government, as well as my staff, our employees, and each one of you for being a part of making it all possible. Here's to another five years of enhancing our community through exceptional service!

Sincerely,

Candace Vannasdale, P.E.
General Manager

HUB Organization

The Harriman Utility Board (HUB) is a group of five non-elected individuals who are appointed by the Mayor of Harriman, and charged with the responsibility to govern the Utility. The Board sets policy, approves the Annual Budget, authorizes major purchases, and is responsible for hiring the General Manager. Each Board member serves a four-year term. In 2023, Lionel Moore was appointed for his first, four-year term.



Lonnie Wright - Chair

Mr. Wright is a graduate of South Harriman High School, the Castle Heights Military Academy, and the University of Tennessee. He retired as the Plant Utilities Operation Manager at the Y-12 facility in Oak Ridge. He has served several terms on both the Harriman City School Board and Harriman City Council. He was initially appointed to the Harriman Utility Board from 2005-2008, and has been serving subsequent terms since 2016.

Mr. Wright is also an active member of Trenton Street Baptist Church.

Alicia Harris - Vice-Chair & Council Representative

Alicia Harris was appointed to the Harriman Utility Board in 2020. Ms. Harris is a graduate of Harriman High School and has two Associate Degrees from Roane State Community College. Alicia has been an employee with the U.S. Department of Energy since 1985 in the Environmental Management Organization.

Alicia is a member of St. Mary's Baptist Church in Harriman, TN and has served on the Harriman Housing Authority Board for over 15 years. In 2022, Alicia was elected to the Harriman City Council.



Shawn Smith
Board Member

Shawn Smith was appointed to the Harriman Utility Board in 2021. He graduated from the University of Tennessee at Chattanooga in 2004 with a Doctorate Degree in Physical Therapy, is a certified McKenzie practitioner in Mechanical Diagnosis and Treatment as well as a Certified Mulligan practitioner.

After 6 years as the Director of Rehab at NHC Oak Ridge, he completed the Administrator in Training program to become a Nursing Home Administrator.



Jason Shillings
Board Member

Jason Shillings was appointed to the Harriman Utility Board in 2022. He was born and raised in Harriman, graduating from Harriman High School in 1996. He has worked full time for the Harriman Housing Authority as their Maintenance Director for the past eight (8) years. He and wife Sonya of 26 years owned and operated the well-known Chuck's Deli for eight years, taking over for Sonya's parents who ran it for 33 years prior. He currently serves on the City of Harriman Beer Board.



Lionel Moore
Board Member

Rev. Lionel Moore was appointed to the Harriman Utility Board in 2023 based on his extensive experience in the industry, to include forty-two years of service at TVA's Spring City nuclear plant. Rev. Moore is a graduate of Howard High School in Chattanooga, TN, and majored in Business at McKenzie College. Moore served for three years in the U.S. Army; during which time, he was stationed at Ft. Knox, Germany, and Ft. Bliss. In addition to serving on the Harriman Utility Board, Moore is Treasurer of the Roane Ministerial Society and Chaplain for American Legion Post 232.

Full biographies are available at our website: hub-tn.com/board.html

Monthly Board Meetings

HUB board meetings are open to the public on the last Monday of every month, except as posted, board meetings are held at 5:30 pm at the Main Office located at 200 N. Roane Street, Harriman, Tennessee 37748. Workshop sessions and special called meetings are also open to the public. Dates for these meetings are always posted on our company website, www.hub-tn.com.

Management Team



Candace Vannasdale – General Manager

Candace Vannasdale, P.E., has served as the General Manager for HUB since May 2018. Prior to this role, she served as the Manager of Gas, Water & Sewer (GWS) Administration & Engineering. Before beginning her career for HUB in 2014, she gained over 5 years of civil and environmental engineering consulting experience in Nashville and Knoxville and worked during college for both the Jackson Energy Authority in Jackson, TN and the White House Utility District in White House, TN.

Born and raised in McMinnville, TN, Candace holds a M.S. in Environmental Engineering from the University of Tennessee (2013) and a B.S. in Civil Engineering from Tennessee Technological University (2008). She is a licensed Professional Engineer in the State of Tennessee and is a certified Grade II Distribution System and Grade II Wastewater Collection System Operator in the State of Tennessee.

Heath Lewis – Manager of Electric

Heath Lewis graduated from Harriman High School and attended the University of Tennessee at Knoxville where he earned a Bachelor of Science degree in Electrical Engineering in 2004.

He worked as a Production Supervisor for General Shale, and a Process Engineer for Exedy America before joining HUB in 2010 as the Electrical Engineer. He was promoted to the Manager of Electric in 2017.

In this role, Heath is responsible for aspects of engineering, design, construction, and operation of the HUB electric system. In addition, he provides overall supervision of scheduling of the work of the Line and Right of Way crews. These functions include coordinating new service and system upgrades, as well as regular maintenance of all substations and associated equipment.



Frankie Davis – Manager of GWS

Frankie Davis serves as the Gas, Water, and Sewer (GWS) Manager for HUB. After graduating from Harriman High School with several years' experience working in his father's welding shop, Frankie gained experience in the construction industry before coming to work for HUB as a cashier in 1986. He quickly progressed within the company becoming a tree trimmer, utility man, meter reader, wastewater plant operator, welder, GWS foreman, GWS superintendent, and eventually the GWS Manager. During his time in GWS, Frankie has managed many major projects including the recovery from the TVA Coal Ash Spill Disaster, acquisitions of neighboring systems, and TDOT Utility Relocations and system extensions throughout the HUB service area. Mr. Davis was also instrumental in starting the Roane County Utility Forum, which allows all utility providers in Roane County to meet quarterly to discuss current projects and issues/concerns with one another.

Full biographies are available at our website: hub-tn.com/managers.html

Supervisors



Michael Bailey
Director of GIS & Asset Management



Thomas Barnard
Director of IT



Wayne Best
Director of External Affairs



Wayne Bullard
Electric Superintendent



Jeremy Gibson
Director of Safety



Joshua Gillespie
Project Manager



Whitney Helton
Director of Human Resources



Andrew Knobloch
Customer Service Manager



Mike Lambert
Manager of Accounting

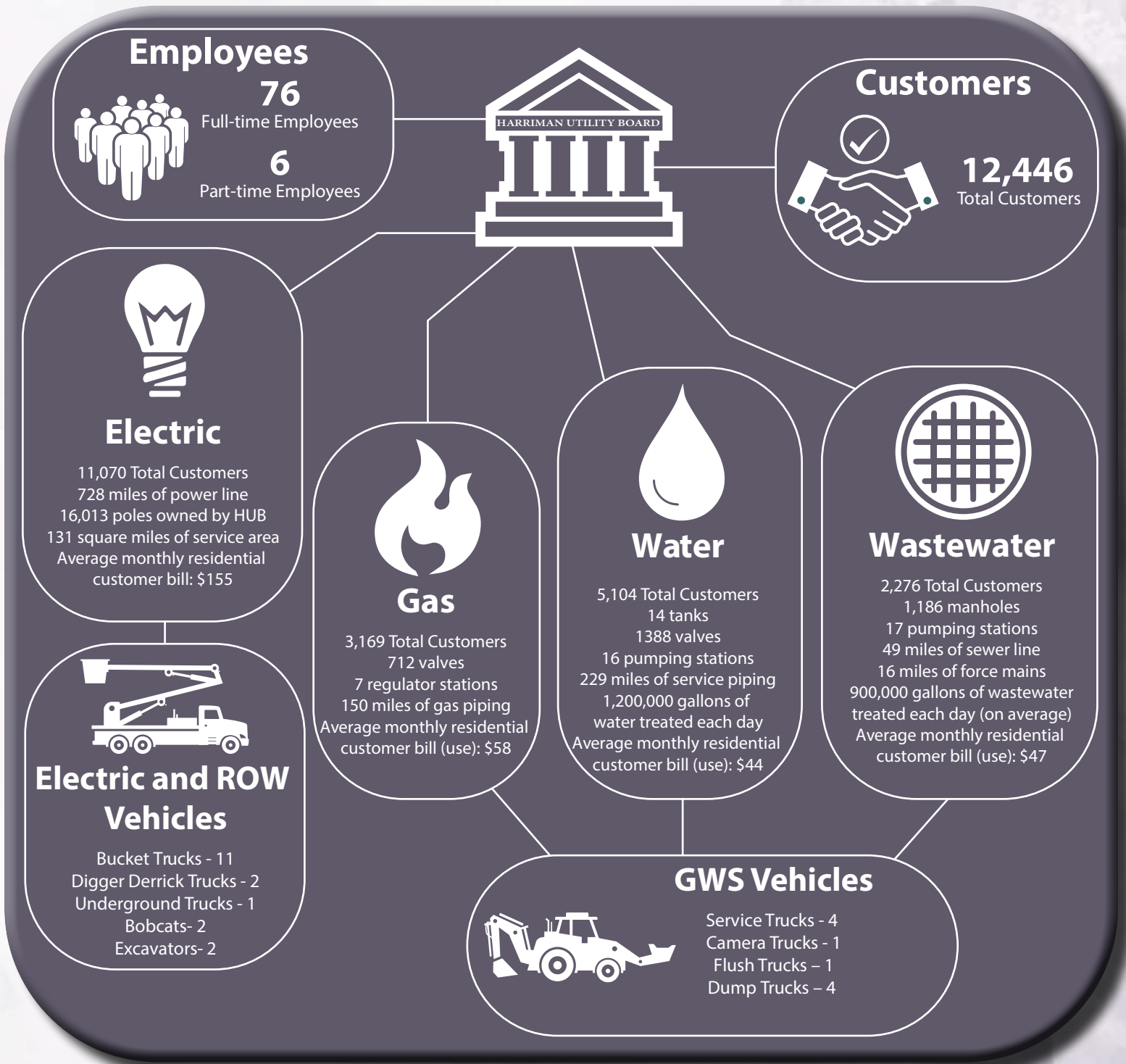


Jeff Mize
GWS Superintendent



Terecia Simmons
Billing Manager

General Statistics



As a public entity, HUB is required by the State of Tennessee Board of Utility Regulation (TBOUR) to conduct annual audits. The primary purpose of these audits is to ensure that gas, water, and sewer departments are self-supporting, and avoid financial deficiency. As a distributor of electric power, HUB submits to further federal oversight by the Tennessee Valley Authority (TVA).

After 5 1/2 Years as General Manager

On May 1st of 2018, just five and a half years ago, I was provided the opportunity to serve as General Manager of HUB. In this issue, you will learn how I've built up and led our incredible team through a vast array of challenges and achieved many successes along the way.

As a professional engineer, I love solving problems. When I first took the title of General Manager, I was eager to make all sorts of positive changes. I knew that laying a strong foundation for success was of critical importance. That's why we quickly set about writing a 5-year Strategic Plan to guide our path ahead. With the help of my department managers and team of supervisors, we identified HUB's strengths, weaknesses, opportunities, and threats. We used this knowledge to set a vision, mission, and core values that focused on what we do best - serve the community.

In the beginning, we had several concerns regarding HUB's overall health. While I wanted to attack them all at once, I knew that the best approach was to handle these issues in a systematic order while ensuring that my team "bought into" the ideas. As GM, I must take care of the employees. I cannot single handedly expect to accomplish anything, but with a supportive team working cohesively toward shared goals, we can accomplish a lot. Equally important is the Board's support. HUB's five-member Board of Directors has been involved every step of the way, formally adopting our Strategic Plan in January 2019, and supporting me in carrying out the plan's objectives.

For years, we seemed to be stuck in the "that's the way it's always been done" mentality. I knew that to advance HUB; we were going to have to influence progress in an environment that was historically resistant to change. I was successful in this by clearly and consistently communicating my vision for HUB to the employees. Whether I was speaking with an individual employee during a "one on one" meeting or to all employees at once during an "all employee meeting", my messaging was the same. I knew it wouldn't necessarily resonate with everyone on "Day One", but through every opportunity possible I communicated the same methodical approach I would follow to take HUB from "good" to "great". As we hit milestones, I reminded them of how far we had come. Through our "tactical action plan", I was able to keep my supervisory team focused on our strategic goals and the action steps which we all agreed would be needed to meet those goals. Though this process was painstaking to create, it has become a key driver of our success. Looking back, I know everyone is proud of how far we've come. As we complete the fifth year of the "Five Year Plan", we have checked many boxes off the list and are always working toward more.

In the early years, our financial health was of great concern. HUB was spending more than it was receiving, and needed a plan to correct it. Not only was our projected net income negative, but we were also running low on cash. HUB had numerous negative events that led us to that point, but regardless of how we got there, I had the responsibility of recommending action to get us to a much healthier place financially. Early on, the management team and I carefully went through our spending and tried to reduce any costs we could without compromising service to our customers or benefits for our employees. I was able to slowly reduce the overall number of employees by not replacing some of the ones that were leaving the company. In doing so, we've reduced the number of administrative staff and increased the number of outside construction employees. This has reduced the overall cost of salaries and helped the outside crews who needed it the most. Other changes I've implemented to help balance our budgets and increase revenue include 1) refinancing HUB's existing debt when rates were at historic lows (~1.4%) and 2) once rates were increased substantially by the Fed, we moved a significant portion of our Electric and Gas cash reserves to a special money market account where we are earning interest each month.

One of the key instruments I focused on in the beginning of my 5-year tenure was the Employee Policy Manual. This document is incredibly important but had not been truly updated since the 1990's. In working with my department managers, human resources department, the HUB board members, and an attorney who specializes in employment law, we were finally able to accomplish this task. The Board approved the new version to be effective in January 2020. We've since had one newer version approved, as we now keep this document up to date on a more regular basis.

One of the most exciting accomplishments I've experienced was the renovation of and move into HUB's new main office location. Essentially, HUB purchased the "Regions Bank" building before I became GM, and then I was given the responsibility of overseeing the renovation and move. We hired an architect from Knoxville to help us put together a plan for the renovations. We acted as landlord to Regions Bank for quite some time before we were finally able to begin construction. Our employees were a tremendous help with the demolition, especially the wallpaper and carpet removal. We advertised for bidders to complete the major construction work including upgrading the old HVAC equipment, building of additional office spaces, demolition and reconfiguring on the basement level, and new painting and flooring throughout the 27,000 square foot building. In May 2019, after over a year of renovations, we finally moved into our new home.



For a total cost of approximately \$1.7 Million, including the purchase price and renovations, we have an impressive new facility that others continue to comment on to this day. Our employees take pride in the space as well. Although it was a busy period for me and several key members of my staff, it was an experience I was glad to be a part of.

Something incredibly unexpected happened in the middle of my first five years - something that no one could have ever predicted and something that no other HUB General Manager has ever gone through... In early 2020, our country was confronted with the federal COVID-19 emergency. Not only did I have to act quickly and professionally to create policies and procedures to recommend to our Board of Directors, but I also had to reassure folks that everything was going to be alright. This was a challenging time for so many employees mentally and physically. We had employees who lost loved ones to the disease. We had employees who couldn't work on site due to lack of childcare. We had employees who were in and out of "quarantine", either sick or exposed to the illness. Through all of that, I assured our employees we would protect their positions here and get through this emergency together. I recommended protocol to follow the CDC guidelines that seemed ridiculous when compared to the pre-COVID-19, "normal" world. We rotated crews on site, we couldn't be in the same room as one another without wearing masks, we set up our seating 6-feet apart... For the first time in our history, we allowed employees to work at home, we closed our lobby for months at a time... We did all the things. Our policies were so strong that they were used as a model for other utilities. But even as we started to emerge from the crisis, we were confronted with entirely new challenges. COVID-19 caused lasting effects that we are still dealing with today. The major disruptions in the supply chain and the job market have changed the way we do business. We can no longer assume the materials we need will be available when we need them. We have seen material and equipment prices increase as much as 400%. Employees have become much more difficult to attract and retain as the post-COVID-19 world seems to have a lot less people willing to work in our essential services positions.

Relationship building was a huge part of my first five years. I implemented one-on-one meetings with HUB employees to help me get to know each employee better. This also gives them an opportunity to provide me with valuable feedback. I consistently meet with my department managers once per week, which has allowed me to bridge relationships between departments and develop solutions collaboratively to many "big picture" issues. Through joining and participating in the Rotary Club of Harriman, I have met many leaders in our community whom I've been able to educate about our business. I started publishing an Annual Report during the first quarter of each year to help us better communicate with our customers by providing an executive summary of where we've been and where we are going. I've also greatly increased our presence on social media (Facebook) and at community events. We are more involved than ever at our schools and have become a major part of events like "Hooray for Harriman" and the "Harriman Trunk or Treat". Lastly, I've hired a Director of External Affairs to help me nourish relationships with key community leaders, major customers, local business owners, and non-profit entities. Based upon the comments I hear from the public and our employees, I truly believe we have been successful in improving our relationship with those we serve.

Overall, I believe we now have a culture where every member of our team desires to perform their best work - where we are success driven and goal focused. With these guiding principles, HUB became known for continual improvement. We improved relationships, implemented new technologies, upgraded equipment, reduced costs, and improved our financial health.

Major accomplishments related to Administration the past five years include:

- Developed and Implemented 5-Year Strategic Plan (2019)
- Published five consecutive HUB Annual Reports (2019-2023)
- Updated HUB Website (2019)
- Updated Employee Policy Manual (2019)
- Increased HUB's Social Media presence dramatically
- Increased employee involvement in Harriman Community Events
- Increased employee involvement in Local Schools
- Establishment of HUB Employee Fund (donation account) to support community
- Developed and implemented an "In House CDL training" program (2023)
- Renovation of and move into new office building (2018-2019)
- Developed and taught Municipal Board Member Water & Sewer Training (2021)
- Suspended late fees and cutoffs due to non-payment during COVID-19 (2020)
- Published and Implemented a Pandemic Response Plan (2020-2021)
- Revamped the "Warming the Heart" program to help more customers (2022)
- Suspended callout fees during Winter Storm Elliott (2022)
- Advanced Metering Infrastructure (AMI) Design, Procurement, and Implementation (2019-present)
- Implementation of Home Uplift Program for Low Income Homeowners (2020-present)
- Procurement and implementation of New Accounting Software (2019)
- Delivered presentations at TVPPA, TAUD, WPC, and WEFTEC Conferences
- Deliver Presentations to Leadership Roane and Leadership Morgan Counties annually (2020-present)
- Refinanced HUB Debt to take advantage of 1.4% Interest Rate (2021)
- Attracted Residential Housing Developer to build 145+ homes inside the City of Harriman (2022)
- Set up Interest Bearing Money Market Account for cash reserves to gain new revenue stream (2022)
- Completed HUB Future Warehouse Study (2022)
- Broadband Study/Research (2023)

Electric — Upon taking the position of General Manger of HUB, it seemed like I had the most to learn about the Electric industry. As I began attending various meetings and networking with managers of the other 153 local power companies (LPCs) within the TVA service area, I began sharing my vision for HUB and all the plans I had for my first year and ultimately the next five years. My understanding that we are always stronger together led me to be transparent about my ideas and ask questions of others. People are so willing to share their experiences and offer advice if you just ask. I too have been asked many times for advice on how I did something at my LPC (community service, pandemic response, AMI, etc). TVA, TVPPA, and TMEPA took notice of my enthusiasm and passion for leading HUB to be the best it could be. TMEPA gave us a “Community Service Award” in 2019 for our work to be more involved in our community. TVPPA asked me to speak at their Annual Conference in 2021 and participate in roundtable discussions at their Annual All Member Meetings in 2022 and 2023.

TVA asked me to deliver a safety moment at the 2020 Valley Partner Meeting as well as appear on a video advertisement about the importance of Public Power which was played at the 2019 Utility Marketplace Forum. I’ve also been a featured speaker at a meeting geared toward new LPC managers across the TN Valley.

Like other CEO-level positions, LPC management is very challenging. But I quickly came to realize that LPC management is more challenging today than it ever has been. We are on the precipice of change in so many ways. To adapt to the changes coming, an LPC manager must be willing to learn and adapt his/her LPC to meet the demands of the future. This has been an interesting space to grow within and something I’ve been most intrigued by. At the end of 2021, I was hand-picked by TVA to serve as one of only fourteen LPC managers across the TN Valley in a new initiative known as “Valley Vision 2035”. This experience has been incredibly rewarding. Surrounded by highly prestigious peers in my industry, we are looking at a broader energy landscape and how TVA’s and HUB’s integrated public power model can best incorporate evolving technological/innovative trends and uncertainties (electrification, decarbonization, decentralization, and digitization) into the future. We do this with much consideration of the major influencing factors of today, such as political/regulatory, economic, consumer/cultural, technological, environmental, and legal drivers. It is an honor to be involved with this group. I’ve received so much education from industry experts around the country and had amazing conversations about the future of public power with LPC managers across the TN Valley. All of this has been organized and paid for by TVA. The results from this collaborative group will be published into a formal report in 2024 and will have a lasting impact on our relationship with TVA.

So, how does HUB fit into the puzzle? On one hand, we are speaking of a future of carbon free power generation. Right now, we know that is not possible. Coal is still relied upon today, and we expect the coal plants to transition to natural gas in the near future. This will drastically lessen the carbon impact. The Kingston Fossil Plant, just a few minutes down the road from us, will certainly be impacted soon by this. Furthermore, TVA has the only permitted site in the USA for a small modular nuclear reactor (SMNR) site. While this technology is very exciting to us, it’s still around ten years away. My opinion matters to TVA. I have been invited to speak with TVA executives regarding transmission/generation and how TVA will transition away from coal and into natural gas and carbon free generation.

I realize that renewable energy is a big part of our future, but I believe we must transition responsibly. I’m working with TVA and 7 States Power Corporation to determine how HUB can best exercise our “flexibility” option in our wholesale power contract with TVA. We might build our own solar farm, partner with other LPCs to build a larger solar farm where we all pull together our flexibility allowance, or we might buy into a TVA scale utility solar farm. In any case, we want to harness the energy of the sun to power homes and businesses here locally. This not only improves our carbon footprint, but it will save our customers money in the long run.

When I transitioned to GM five years ago, I quickly came to realize HUB’s day-to-day focus in the Electric Department is maintenance. As an older system and as a system that isn’t growing new subdivisions each year, we tend to spend most of our capital on right-of-way (ROW) maintenance and replacement of damaged or aging infrastructure. Our highest priority has been keeping the power on for our approximately 11,000 customers.

Right-of-way (ROW) management is a key component of HUB providing reliable and affordable power. Unlike most local power companies (LPCs), we have in-house ROW management. Since I’ve been General Manger, we have purchased a few key pieces of equipment that have helped ROW become more efficient. I’ve also worked with our Electric Department Manger to ensure that we keep them on a 5-year cycle for maintenance that allows us to cover the entire service area, prioritize 3 phase lines first, and then single phase. This approach has reduced outage restoration times.

Staffing has been another issue for the Electric Department. We have lost multiple linemen to the Department of Energy (DOE) in Oak Ridge in the past few years. On top of this, the lineman position has one of the lowest unemployment rates of any job these days. This means we must work hard to keep pay and benefits competitive. In the latest Employee Policy Manual update in 2022, we implemented a “paid rest period” policy for our crews that allows them to rest after working overnight outages. This has gained more praise than any other change (such as increased wages or lower health insurance costs). Additionally, we have bolstered our apprentice training program with 4 new hires.

Concerns about electric rates continue, but we are actively pursuing things to help alleviate this stress. First, it's important to understand our utility rates are directly impacted by economic growth or decline. For the past two decades, Roane County and Morgan County have both declined in population. Until the growth in utility revenue from new customers is enough to offset the effects of inflation, we must continue to increase rates. While we do not typically directly impact economic growth, we have done so in the past year or so. We singlehandedly recruited a Bitcoin mining operation to set up a facility next door to the Cardiff Substation getting that sub up to 90% load capacity, which has never been done here before. The amount of revenue from this single customer is the size of a typical sized local rate adjustment for all HUB electric customers combined. Further, we recruited a housing developer who is expected to build 145 new single-family homes inside the City of Harriman. This project is especially exciting because we expect at least three (if not all) of our departments to be impacted. Lastly, we are trying to put Harriman on the Electric Vehicle Fast Charging map. We have applied for and been awarded a grant from TVA to support 80% of the cost of EV fast charging infrastructure in our service area. We are hoping to get this project completed in the coming months.

Major accomplishments related to the Electric Department the past five years include:

- TVA Valley Vision 2035 Collaboration Group (1 of 14 LPC managers hand selected by TVA)
- Long Term Partnership Credit 3% discount on our wholesale power bill
- Hosted TVA's Chief Executive Officer for a Visit to HUB's main office
- "Community Service Award" by TMEPA (2019)
- On camera interview for TVA video ran at Utility Marketplace Forum (2019)
- Delivered Safety Moment at TVA's Partnership Meeting (2020)
- Attracted a Bitcoin mining company - now HUB's single largest Electric Customer (2022)
- 2021 Safety Award from the American Public Power Association (APPA)
- Improved outage restoration time for tree-related outages
- Secured a river crossing permit from TVA for the relocation of the power and fiber lines running to the HUB sewer plant (2019)
- Replacement/relocation of the Emory Drive powerline off of the bank of the Emory River
- Replaced two towers on the 69KV Line on Ladd Mountain (2019)
- Replacement of about 2,000 feet of overhead power along Brashears Rd with underground power to get our poles off of the swamp covered land (2020)
- Replaced ~4 miles of static line on the 69KV Line that feeds Cardiff Substation (2020)
- Provided Mutual Aid to Respond to Cookeville Tornadoes (2020)
- Completed helicopter tree trimming along the 69KV Line (2022)
- Street Light Survey for City of Harriman (2022)
- Obtained grant funding through TVA's Community Care Fund program for Local Non-Profits (2022)
- Secured Grant Funding worth up to \$1 Million to be used in our Community for a "Fast Charge Network" EV Charging Station (2022)
- Helped Oakdale School secure \$100K Grant from TVA through their "School Uplift" program (2022)
- HUB-TVA Community Energy Marketing Campaign (billboards, radio/tv ads, social media ads)

Gas, Water & Sewer

— My college education was in the fields of civil and environmental engineering. I was trained early in my career as a water and wastewater engineer, and I am very passionate about those areas. The energy sector (electric and gas) came later for me, as I began my career here at HUB. With my training as an engineer, I became very knowledgeable about design, project management, regulatory compliance, financial analysis, energy efficiency, cost estimating, grant administration, environmental permitting, and technical writing. All these skillsets are things I carried with me into the role of GM at HUB.

I know the importance of directing limited budgets appropriately to keep essential infrastructure operational while ensuring we meet the required health and environmental standards. Unfortunately, the most difficult aspect of managing GWS, and particularly water and sewer, is

prioritizing spending to get the most we can for as little as we can. People can live without heating, cooling, modern technology, and appliances... but people cannot live without clean water and the safe disposal of sewer. I say this to stress that water and sewer expenses are oftentimes a "must". Due to limited budgets, we tend to act more on a reactionary basis than on a proactive basis. As GM, I have the tough job of explaining why rates continue to increase in water and sewer (due to lack of customer growth and loss of major customers like hospital and nursing home) while we still don't seem to have enough revenue to make significant impact on ongoing issues like water loss and inflow & infiltration.

Because of these issues, our team focuses a lot of effort toward the acquisition of grant funding. During my time as GM, we've been awarded several grants. With the American Rescue Plan Act of 2021, we expect a huge influx of cash to spend on improving our water and sewer systems. Without grants, HUB's utility rates would be even higher as critical projects would have to be funded through rates or simply not funded. Inadequate funding for these critical projects could lead to decreased reliability, which is simply not acceptable to today's customers. When customers turn on a faucet, they expect clean water to pour out. When they flush the toilet, they expect their waste to be flushed away. When there is an outage, they expect us to get it corrected quickly. As GM, I have enacted programs to plan ahead for major capital expenses so that we can be prepared when it's time to budget for them. I've also started programs that require our crews to find and identify deficiencies using our GIS system and mobile applications (using their iPads). This documentation allows us to better understand the areas in most need of capital investment. It also allows us to submit stronger grant applications.





Long term, I want to influence Roane County toward regionalization. There are nine water and/or sewer providers serving Roane County (HUB, Kingston, Rockwood, Oak Ridge, Oliver Springs, Cumberland Utility District, Watts Bar Utility District, Roane Central Utility District, and Roane County Board of Public Utilities). Each of us is small, and each of us is struggling to some degree with a stagnant or declining customer base. Building strong relationships with local officials will eventually allow to us influence consolidation of utilities. Administrative expenses could be greatly reduced county-wide leading to better utility rates for customers served, and the utility revenue could be spent where it's most needed - upgrading and replacing critical infrastructure. We spend so much time trying to balance our utility budgets and build emergency reserves to stabilize rates, which is very important when you consider affordability for our customers. However, a conversation that is often missed is that water and sewer utilities in Roane County are struggling to make enough profit to improve their systems. We have become reliant on grant funding for that. Eventually, you will see a day when water and sewer rates are as high as electric and gas rates. Regionalization could certainly help alleviate some of that stress. I must build relationships and negotiate deals in our future that will help us achieve the highest quality of services for the least cost to our customers.

Related to regionalization, in 2023, I re-opened a dialogue with officials in Cumberland County about the possibility of HUB becoming a wholesale drinking water provider to their region in the future. This is something that has been talked about many times in the past, primarily because of the tri-county investment in what was previously known as the "Plateau Partnership Park". This 773+ acre tract is now slated to become a major motorsports attraction expected to garner visitors from around the world at numbers up to 70,000-90,000 at a time for some events. In August of 2023, we applied for grant funding to complete the project to allow us to wholesale water to Crab Orchard Utility District. Ideas such as these require diligence to see them through. We must always be looking ahead for what's best for our customers and employees in the future. This interconnection effort has taken years to achieve, but the result will help HUB stabilize rates while also improving reliability of service to our customers in Morgan County. So not only do Cumberland County residents gain protection during periods of drought and the ability to support economic growth with enhanced drinking water supply, but HUB's Morgan County customers also gain a larger, more reliable new transmission line through their area which will make us more resilient to disruptions such as power outages or major line breaks.

In 2022, HUB was honored to receive two major water awards. The first award was for Outstanding Water Treatment Plant Award for small systems (less than 5 million gallons per day treated). The second was for Outstanding Distribution System for small systems (less than 10,000 service connections). Despite our size and limited resources, we continue to hold ourselves to high standards comparable to or higher than systems in larger, more affluent communities. With a state-of-the-art GIS mapping system, continuous SCADA monitoring of system assets, implementation of zone metering to help identify water loss, and efforts toward digitization in dispatching our crews and recordkeeping; HUB has become more efficient than ever before. In the coming year, we will be one of the few small water systems to implement advanced metering infrastructure (AMI). This means that we will be able to read customer water meters remotely and identify problems such as water leaks before the customer knows about them. Customers will be able to use their SmartHub® app to evaluate hourly usage which will help them improve their own water efficiency. The AMI system will soon help us cut down on operating costs and reinvest those savings toward improving our system.

The most important accomplishment in GWS over the last five years was bringing back their leader Frankie Davis out of retirement. Frankie's leadership is invaluable to our GWS team. He is very well respected for his knowledge and experience but also has the heart of a teacher. He has done a great job in rebuilding his team. As we have welcomed several new faces to our GWS team, I am confident the skills they are taught by Frankie will benefit HUB for decades to come. Part of my role as GM is to ensure that I have the right people in the right places to carry out the Board's policies and directives. Working closely with Frankie and his foremen, the past 5 years have been extraordinarily busy for the GWS department.

One of our proudest accomplishments in the gas department was completing the final round of our cast iron gas line replacement. This was an effort that HUB started just prior to my arrival in 2014, but it took several years and three separate construction contracts to complete. Up until the last mileage was replaced in 2021, we would get annual inquiries at the federal level about our plans to address it. Cast iron is well known in the gas industry as being one of the most vulnerable pipe materials to leakage. While our cast iron gas main seemed to be in good condition, it was still important to have that concern off our plate. The last several miles were replaced in the past nine years, so I was able to experience each project firsthand. The first project was paid for mostly by TDOT as it was included in the Ruritan Road widening project. The second project was paid for with cash reserves set aside by the gas department. And the last project, we funded with bonds at an interest rate of approximately 1.4%.

Major accomplishments related to the GWS Department the past five years include:

- TDOT Bridge over Caney Creek “Repair” Project (in front of Krystal’s) - Gas and Sewer Relocation
- Eliminated Cast Iron Gas Main from our System
- Improved cathodic protection program of natural gas system
- Extended Gas to Rock Bridge Rd during TDOT Hwy 27 Widening Project
- Coordinate with Elected Officials (local and state level) to navigate American Rescue Plan Act
- Upgraded security at Water Treatment Plant
- AWWA Awards for Outstanding Water Treatment Plant & Distribution Systems
- Installation of Zone Metering in Water Distribution System funded by an infrastructure Planning Grant from TDEC
- Replacement of 450 feet of ~100-year-old waterline along Emory Dr
- Water Treatment Plant - Filter Rehabilitation & Repainting Projects
- Sherwood Dr - Relocated 6” waterline
- Secured NRCS Funding for Riverbank Stabilization along Bullard Ford Rd & Riverfront Park
- Completed Riverbank Stabilization Projects (Bullard Ford Rd & Riverfront Park)
- Refurbishment of the Sludge Press at WWTP (labor performed in house)
- EPA Biosolids Disposal Site Approval (Souther’s Farm)
- Revised NPDES Permit to include Outfall No. 2 (Emory River)
- Installation of Effluent Weir Box to Discharge to Outfall No. 2 (Emory River)
- Rehabilitation of Secondary Clarifiers at Sewer Plant
- Replacement of two high service pumps including new variable frequency drives at the Water Plant funded with TVA Grant
- Secured \$500K Federal ARC Grant for Pine Ridge Rd Sewer Extension
- Relocated sewer main and manholes on Emory Dr to accommodate Harriman Splash Pad
- Secured over \$16 million in Federal, State, and Local Grants.

Conclusion — Five years ago, the HUB Board of Directors took a leap of faith in hiring me to lead this important organization. I believe during that time, we’ve gotten the right people in the right places, created a vision that others could get behind, and fostered a culture of continual improvement. We have improved communication and transparency with those we serve, improved our financial standing, modernized our processes, moved into our new office space, and planned for the future. And together we got through the most uncertain time in our entire history - the global pandemic and ensuing supply chain disruption. I hope I have demonstrated that I can handle whatever challenges come my way through a methodical, purpose-driven approach. I wish not to be mediocre, do the bare minimum, fight against change, or fail. I have a heart for continual improvement and will continue to evolve HUB into a thriving, modern, and respected organization and prepare us for the challenges of the future. I never take for granted the privilege I have in leading HUB, and I never forget the lives that are impacted every day by the decisions I make.

Thank you for providing me with this opportunity. In the next five years and with your support, you will see us finish the AMI project, implement smart grid technologies, invest in cyber and operational security improvements, utilize our “flexibility” allowance provided by TVA to purchase low-cost renewable energy, determine when and where to relocate our warehouse and operations center, improve strategies for maintaining our aging systems, develop robust asset management programs, take advantage of every grant opportunity we can to upgrade and replace our equipment or grow new territory, pursue interconnections and/or regionalization projects, stabilize our utility rates as much as possible, and advocate for our community. And perhaps most importantly, I will take care of those that dedicate their careers to taking care of the customers we serve - those that do all the hard work to make these ambitious changes happen.

With the Board’s support, I look forward to many more years serving as GM of HUB. In addition to what’s already been stated, I wanted to acknowledge a few more personal accomplishments below:



Candace Vannasdale, P.E.
General Manager

- Appointed by Governor Bill Lee to serve on TN Board of Utility Regulation (TBOUR)
- Professional Engineer licensed in the State of Tennessee
- B.S. Civil Engineering, M.S. Environmental Engineering
- 16+ years’ Experience working in Utilities Industry
- Certified Power Executive
- Manage a \$30+ Million Annual Budget split between four separate departments
- “Professional Woman of the Year Award” by TN Association of Utility Districts (2019)
- ETEDA Board Member
- Roane Alliance Board Member
- Graduate of Leadership Roane County (2020)
- Vice Chair of the Appalachian District Public Power Association (2023)
- Prior Communications Committee Chair of the KY/TN Section American Water Works Associations (AWWA)
- Chair of Youth Services for the Rotary Club of Harriman (2018-present)

HUB's Future Plans to Deploy "Smart Grid" Technology and Fiber-to-the-Home Broadband Service

How did HUB become interested in fiber?

Today, HUB has limited communications to our six substations through a radio system, but the radio system simply does not have enough capacity to take advantage of smart grid technologies that are necessary to improve the reliability and resiliency of our electric system. Across our nearly 600 miles of powerline in between substations, HUB has little to no communications. Moving forward, HUB wishes to develop and implement "fault locations isolation and system restoration" (FLISR) technology to isolate and respond to power outages more quickly. Having fiber connectivity to downline devices along the nearly 600 miles of powerline outside of our substations will allow us to find and isolate outages using automation.

In the past, we had no visibility into where faults were occurring other than customer phone calls. Now, we are installing AMI meters so we can quickly determine exactly which customers are affected. The FLISR system will isolate the number of customers by activating remote devices to operate thus isolating the outage to as few customers as possible. Please bear in mind that this will be a long process. It requires study, design, and funding. This is why HUB is currently seeking over \$9 Million from the Federal Department of Energy (DOE) to help us fund the fiber and subsequent smart grid technologies.

HUB is very serious about modernizing and improving its electric system. Staff at HUB are participating in the Tennessee Valley Authority's (TVA) "Regional Grid Transformation" which is a collaboration between local power companies (LPCs) and TVA to transform the power grid into a more resilient, flexible, and integrated system to meet customer expectations and changing world conditions. Working together, we can understand and implement the grid-related initiatives necessary to address current and future needs of the TVA service region.



Similarly, HUB has been working with TVA and the Electric Power Research Institute (EPRI) on a couple of efforts. EPRI is an independent non-profit energy research, development, and deployment organization, with three specialized labs. EPRI is known and respected worldwide for their wealth of knowledge and achievements toward driving innovation that ensures the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe. In January 2024, HUB began participation in a PILOT study by TVA and EPRI. The program, known as

the "Cybersecurity Strategy Assessment and Program Alignment" pilot is intended to help define a Valley-wide cyber stance and improve the overall IT and OT security postures of interconnected utilities in alignment with TVA's Capability Progression Model. Prior to this in 2023, HUB worked with EPRI to develop a technological roadmap which outlined various upgrades and improvements needed by HUB in the coming years in prioritized order.

When did HUB begin looking seriously at offering a broadband service to the community?

A few years ago, fiber-to-the-home (FTTH) broadband service was the furthest thought from our mind. We thought it was great for some of the more modern electric systems, like Chattanooga, but that it would be too cost prohibitive for HUB. At that time, HUB had much larger challenges to overcome, from existing financial burdens to lack of advanced metering infrastructure (AMI). Plus, HUB's large capital project was anticipated to be the new warehouse and operations center we had been planning for many years be built on the "Hannah Farm" near the TCAT campus on Hannah Hwy.



However, as HUB management was wrapping up its ambitious five-year strategic plan and as the leadership team was becoming more involved with TVA initiatives toward understanding the electric grid of the future, it became apparent that there just might be a pathway toward success in the broadband business. In 2022, HUB attended meetings with other electric managers who had been successful in implementing and operating a fiber broadband division. Systems like Morristown, Tullahoma, and Chattanooga are excellent examples of municipal electric systems that used fiber to improve their electric system, stabilize electric rates, and stimulate economic growth in their service areas.

However, there are many, many more examples. HUB interviewed and questioned countless other electric managers about their experience with fiber. Many of those systems installed fiber with little to no grant funding. Instead, they took on debt against their electric system which was repaid over time with revenue generated by the broadband division. Many of them explained how the debt was repaid faster than they anticipated and that they had been able to forego multiple electric department rate increases because of the new revenue they were making from the broadband division. With a vision of “social and economic improvement through intentional action”, HUB began to see how this effort would help support that vision.



In 2023, HUB conducted an initial feasibility study and public survey to better understand the financial model for such an endeavor and the amount of public support we would have for the project. By the summer of 2023, the results of those efforts were overwhelmingly in favor of the project. HUB hosted multiple public meetings to discuss the topic, with various stakeholders in attendance. By December 2023, HUB was submitting their business plans to the State Comptroller and TVA for approvals. Through these processes, HUB also stays in touch with Knoxville, Lenoir City, and Cleveland who are all currently implementing FTTH broadband service in their respective communities.



What is the timeline for the project?

HUB hopes to secure approvals from both TVA and the State Comptroller in 2024 and then move quickly to secure funding and complete design. Construction of the major fiber would then begin Fall 2024. Customer connections could begin as soon as early 2025. The entire project and all customer connections would be complete within a three-year period.

What will it cost?

The total cost for the project is anticipated to be \$25.4 Million. HUB hopes to receive \$10 Million from the Department of Energy. HUB will

also be applying for broadband grants to help support our “underserved” and “unserved” communities. Even without grants, our business model shows that HUB will be able to successfully implement broadband with no impact on electric rates. However, grants will provide a better return on investment and lessen our risk considerably.

Will it be better than cable broadband service?

Yes! While our biggest competitor will be the existing cable internet provider, fiber is a superior product. HUB will offer up to 2 gigabyte per second upload and download speeds for residents. This cannot be done with the existing cable service. Furthermore, none of the incumbent providers have committed to make such a substantial investment to cover every last mile of our service area.

How can the public get involved?

This project will not continue without the support of the HUB Board of Directors, Mayor & City Council of Harriman, or citizens like you. If you feel strongly one way or another about the project, we invite you to participate in our public meetings.



When can I sign up?

Once we have received TVA and State approvals, we will seek approvals from the HUB Board and Harriman City Council for financing. Once we have signed design contracts, HUB will begin a rigorous public outreach campaign to keep the community informed on when and where the FTTH service will be available. Customers will be able to sign up months or weeks ahead of time. This advanced notice period will allow time for customers to let their current internet contracts expire.

Will I have to pay to add my service connection?

HUB will not charge an installation fee for the initial service connection. This is built into our implementation budget. The fiber lines will follow the existing power lines. If your electric service is installed underground, your fiber service will also be.

What benefits will FTTH Broadband provide to HUB, its customers, and the local economy?

- Attract and retain residents and businesses to the area.
- Eliminate gaps in internet service availability within our electric service area.
- Provides more work-at-home (WAH) job opportunities. Residents can enjoy big city internet service while maintaining small town cost-of-living.
- Provides better service for a lower rate than incumbent providers.
- HUB will charge a low, flat rate with no contracts.
- Rates will be fair and equitable. HUB will provide simple, transparent rates with no hidden fees.
- Improved access to Healthcare and Education (e.g., no buffering during video conferencing).
- Lower dependency on large, incumbent communications providers.
- Revenue can be used to improve the Electric System.
- HUB can employ more people in the community we serve.
- A fiber network can allow for the future deployment of “Smart City” technology.
- Strengthens the economic vitality of our community well into the future.
- HUB will be able to easily upgrade equipment to increase bandwidth as customer demand grows, unlike incumbent providers (e.g., 1GB to 10 GB standard residential speed).
- We believe this will help make Harriman the “best small town in Tennessee to live and work from home”!

Ultimately, what is HUB’s goal for offering FTTH Broadband service?

HUB wishes to improve its electric service and stimulate its local economy to stabilize electric rates for many years. In the end, HUB wants the City of Harriman and surrounding area be known as the “best small town in Tennessee to live and work”. FTTH plays a huge part in that role.



HUB Awarded Massive \$10.7 Million Grant to Supply Drinking Water to Cumberland County



On November 2, 2023, the Tennessee Department of Environment and Conservation (TDEC) and the State Water Infrastructure Grants (SWIG) Program announced that the Harriman Utility Board (HUB) and the Crab Orchard Utility District were approved for a competitive grant for Regionalization. The City of Harriman, on behalf of Harriman Utility Board, will receive 100% of the funding requested, totaling \$10,705,550.00.

With this funding, HUB will embark on a major water distribution system upgrade project to allow it to interconnect with and sell drinking water to Crab Orchard Utility District (COUD) in Cumberland County, TN where water shortages have prompted the utilities in that area to seek new and permanent, reliable water supply sources that improve resiliency to long-term drought and other emergency conditions. HUB will be one of those new sources. However, this project is twofold. It not only serves to promote reliability and resiliency in the Cumberland County region; but it also provides better resiliency and improved water quality to HUB's existing customers in Morgan County, TN. Both Morgan and Cumberland Counties will benefit from this project, and both are designated as disadvantaged communities.

"This grant announcement is extraordinary news for HUB. We've been talking about this project with Crab Orchard Utility District for nearly 20 years. It is so exciting that our hard work has paid off. Back in the Summer, HUB spent many hours writing this grant, making numerous trips to Cumberland County to ensure our project was viable for this highly competitive grant program. Now that we've received the news, the real work begins," said Candace Vannasdale, HUB's General Manager.

HUB will need to design and install nearly 13 miles of waterline and three pump stations to convey adequate flow up the mountain. In the future, HUB wishes to interconnect with other utilities in the area as both a wholesale buyer and a wholesale seller.

Regionalization is a hot topic in the water and sewer industry right now. Back in May, TDEC announced a competitive grant program with \$100 Million allocated specifically for regionalization which refers to projects that connect infrastructure to improve services and optimize capacity. HUB has an abundance of drinking water capacity from a secure source - the Emory River. COUD is challenged being on the plateau where they are much more limited on the amount of source water available. Much of the water shed from the mountain ends up in the Emory River. HUB will be able to treat and return some of that water to the customers who need it in the COUD service area. This project will also help support the new Flatrock Motorsports Park and Motorclub in Cumberland County, just off the Westel exit on I-40.

In its letter of support for the project, COUD's General Manager Everett Bolin had the following to say, "We are pleased to be partnering with HUB to expand the regional footprint in this area of the State, specifically the Cumberland Plateau. The proposed project is to extend the existing HUB water system so that COUD can have an interconnection for wholesale water purchase to sustain existing and future demand for our residential, commercial, industrial, and wholesale customers. We are expecting usage to increase in the Eastern portion of Cumberland County in the near future, and this connection would be the most feasible way to serve this area."



Grants Awarded to HUB post COVID-19

In all that we do at HUB, we keep our vision in mind. If a decision does not support our vision of inspiring social and economic improvement through intentional action, then we don't do it. After the onset of COVID-19, multiple major spending packages were approved in Washington DC that would eventually trickle down to communities across the nation. These grant opportunities are cumbersome to manage at times, but HUB feels it is important to take advantage of the historic opportunities to bring federal funds into our community and improve our utility systems. Why? The answer has to do with stabilizing rates for our customers. HUB is battling aging infrastructure. To complete major infrastructure projects with traditional financing, HUB must repay principal, interest, and fund depreciation for the lifespan of the installed assets. If grant funds are used to cover 90% or more of the costs, then HUB still funds depreciation over the lifespan of the installed assets but saves substantially in long-term debt payments. Therefore, grant funded projects lessen the financial pressure to increase utility rates in the future.



Grant funding is somewhat controversial. HUB should always be financially self-supporting without the subsidy of grant funding. In fact, the State Comptroller requires this. On our annual financial audit for each department, we report our net income with and without the impact of grant funding. The latter must be positive. If that number is negative for two or more years, then HUB must have a plan of action to adjust income or expenses to get us back in the black.

Knowing that grant opportunities come and go, HUB tries to take advantage of every opportunity. Since the onset of COVID-19, HUB has been awarded over \$15.3 Million in Federal Grants and over \$774K in local grants (City of Harriman, Roane County). These funds are being used to replace the "Wolfe Branch Pump Station" (which provides most of the water supply to HUB customers in Morgan County), replace an asbestos cement waterline that crosses Ladd Mountain and travels north along Oakdale Hwy, replace a waterline along Riggs Chapel Rd and Snow Lane (which has experienced countless leaks over the last several years), extend sewer availability along Pine Ridge Rd just north of I-40 to hopefully spur economic development in that area, rehabilitation and replacement of sewer lines and sewer manholes throughout some of the oldest parts of the City of Harriman, engineering analysis and planning to develop asset management and capital improvement plans for the water and sewer departments, and upsizing water pumping and transmission capacity to become a wholesale water provider to Crab Orchard Utility District in Cumberland County.

HUB Grant Activity to Date

Project Name	Grant Amount Awarded	Matching Funds to be paid By HUB	Matching Funds to be paid By Others	Total Investment to benefit HUB
2021 CDBG Water System Improvements	\$ 630,000	\$ 62,350	\$ -	\$ 692,350
TDEC ARPA Water System Improvements	\$ 1,872,709	\$ 174,342	\$ 174,342	\$ 2,221,393
TDEC ARPA Sewer System Improvements	\$ 1,319,050	\$ 31,905	\$ 100,000	\$ 1,450,955
ARC Pine Ridge Rd. Sewer Extension	\$ 500,000	\$ 144,745	\$ 500,000	\$ 1,144,745
*Infrastructure Planning Grant	\$ 346,750	\$ 17,338	\$ -	\$ 364,088
*TDEC ARPA COUD Interconnection	\$ 10,705,550	\$ 563,450	\$ -	\$ 11,269,000
TOTAL FUNDING:	\$ 15,374,059	\$ 994,130	\$ 774,342	\$ 17,142,531

* Grant announced, but we are still waiting on official award contract.

HUB's Technological Evolution - Past, Present and Future



As homes and businesses are becoming smarter and smarter through use of modern technologies, HUB is as well. Over the years, HUB has been slowly incorporating more and more technologies to improve its services. The past 5-years have been largely about the incorporation of advanced metering infrastructure (AMI). The next 5-years are expected to be largely about the deployment of fiber communication lines and accompanying smart power grid technologies. On the water side, HUB is working to develop an automated and real-time water loss tracking system to help us find and correct leaks more quickly. In customer service, HUB will soon be able to offer pre-pay metering service to those customers who prefer to “pay as you go”. In this article, we wish to give a little glimpse into where we've been the past 10-15 years and where we are going with the implementation of new technology over the next 5-10 years.

In the past, some of the smartest technology investments HUB made included the purchase and implementation of Supervisory Control and Data Acquisition (SCADA), outage management software (OMS), Interactive voice response (IVR), geographic information system (GIS) mapping, electric modeling software, and our Customer Service & Billing software. For nearly a decade, our customers have been able to report power outages via IVR which is tied to our prediction-based OMS. Customers can view and manage their accounts on a web browser or via a mobile application. HUB has visibility into and control of its substations via radio-based SCADA. Our employees can edit GIS data or submit map change requests via our enterprise GIS software which sends updates on a regular basis to our electric system model. Employees save time in sending and receiving service orders using our software that sends them remotely via an iPad rather than requiring employees to drive back to the office for paper forms. While HUB has improved efficiency and customer service over the past decade, there is much work left to do.

HUB began implementing AMI in 2021. Due to the supply chain disruption following the onset of COVID-19, the project is still ongoing. Our hope is to be fully implemented with AMI for all three services (electric, gas, and water) by the end of calendar year 2024. With AMI fully implemented, HUB will have a much more accurate OMS. This will help us better track outages and make smarter decisions related to Right-of-Way (ROW) management. Next, HUB wishes to invest in distribution automation to allow us to develop a “fault location, isolation, and service restoration” (FLISR) program. In addition, HUB wishes to stand up an automated program for conservation/demand voltage reduction (regulator controls tied into our SCADA system and end-of-line voltage monitoring devices). By this time, HUB will have fiber connected to each of its six substations which allows these systems the bandwidth they need to react and respond almost instantaneously. What does all that mean for customers? It means that HUB will be able to find and isolate power outages in a more automated way, lessening the impact to as few customers at a time as possible. It also means that HUB will save costs on an annual basis thus lessening the financial pressure on utility rates.

In addition to AMI, fiber, and smart grid, HUB will complete projects such as electric vehicle (EV) fast charge infrastructure, a utility-scale solar project to take advantage of TVA's “Flexibility 1.0” which will allow us to save substantially on our wholesale power bill each year, and fiber-to-the-home (FTTH) broadband service.

HUB's vision is to inspire social and economic improvement through intentional action. We are a purpose-driven organization. Each decision plays on another with that vision in mind. When it comes to innovation, we seek to transform HUB into a smarter utility that will meet changing customer expectations now and in the future. The steps we are taking as outlined above will allow HUB to find and resolve faults in a timelier manner, manage our systems more strategically and efficiently, stabilize utility rates, and prepare for emerging trends such as electrification and decentralization. **Overall, HUB will pull together its technology investments of the past with some of our newer investments to become a much more modern and smart utility.**



Safety Summary for 2023



Harriman Utility Board Safety Committee for 2023:

Jeremy Gibson, Zeb Poore, TJ Tilson, Todd Wicks, Angie Skidmore, Jessie Russell, Whitney Helton, Chris Mitchell, Wayne Bullard, Brandon Alexander

2023 marked another successful year for HUB in terms of Safety and Training for its employees. While we did have a few OSHA recordable injuries, we were able to complete our third consecutive year without a lost time accident! What an amazing job by ALL our employees. For the year, HUB had over 156,000 hours working whenever necessary, through day and night, in sub-zero temperatures, extreme heat and humidity as well as wind and rain.

Both work zone safety and defensive driving continue to be one of the most discussed topics during safety meetings and rightfully so. Not only did our employees put over 385,000 miles on company vehicles, but our workers are also exposed daily to the dangers of traffic while carrying out their various tasks.

Our goal continues to be that every employee goes home at the end of the work day to enjoy time with family and friends doing what they enjoy!

A Commitment to Community

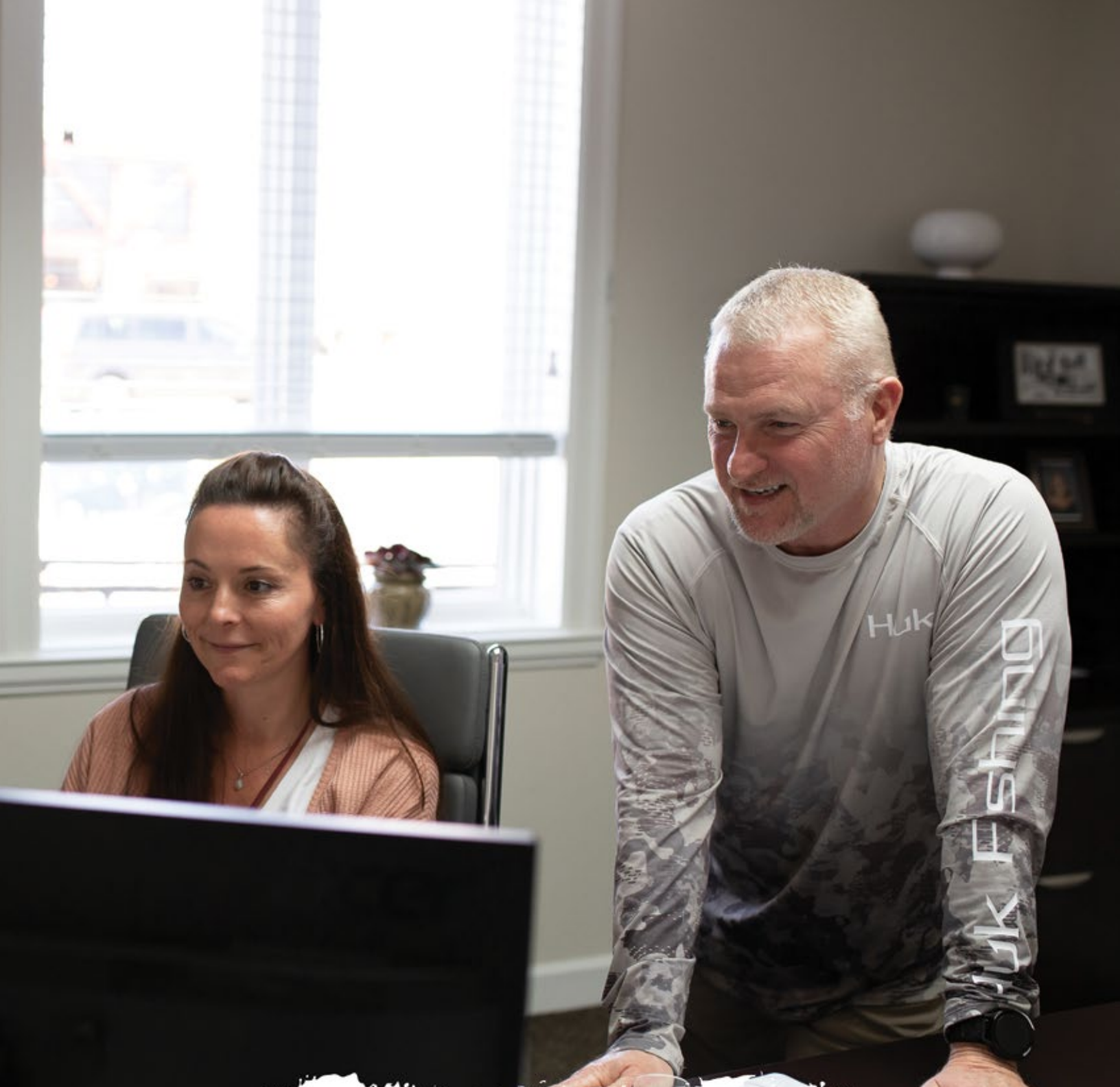
For over 80 years, the HUB logo has stood as a symbol of community support, prominently displayed over Roane Street. Our employees and board members are actively involved in giving back through volunteering and charitable initiatives, such as our Community Action Fund and partnership with TVA's Home Uplift program. Events like "Trunk or Treat" and the Christmas Parade are cherished traditions where HUB proudly engages with the community, bringing joy and support to families throughout the region.



How can HUB Serve You Better?

HUB's management team is always interested in ways we can serve our community better. Do you have suggestions or ideas for how we can improve our service? You can stay on top of recent developments, current projects, and other HUB activities on Facebook™, or contact us through our website, www.hub-tn.com. You can also visit our primary location at 200 N. Roane Street during regular business hours, 8:00 a.m. to 4:30 p.m., Monday through Friday.

Thank you for being our partners in Enhancing our Community through Exceptional Service!



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