

RESPONSE TO REQUEST FOR QUALIFICATIONS

Greenville Utilities Commission

RFQ 25-10 Advanced Metering Infrastructure (AMI)
Vendor Selection

March 11, 2025

March 11, 2025

via electronic transmission only to: haddocgc@guc.com

Greenville Utilities Commission
Attn: Cleve Haddock, GLCPO, Procurement Manager
401 S Greene Street
Greenville, NC 27834

RE: RFQ 25-10 – Advanced Metering Infrastructure (AMI) Vendor Selection

Dear Selection Committee:

Tantalus Systems Inc. is pleased to submit our qualifications in response to your Request for Qualifications for a comprehensive Advanced Metering Infrastructure (AMI) system implementation. As a leading provider exclusively focused on public power and cooperative utilities for over 30 years, we are uniquely positioned to support Greenville Utilities Commission's ("GUC") multi-utility AMI deployment goals.

We understand that GUC seeks a comprehensive AMI solution capable of supporting electric, water, and natural gas services through an eight-year implementation plan. Our proposal directly addresses your core project objectives as follows:

- **Enhanced Efficiency and Integration** - Our TRUSync™ Grid Data Management System streamlines data integration across all devices, systems, and vendors, creating a unified operational perspective. As the only vendor with exclusive approval to read water and gas ERT devices, our proven integration capabilities have been successfully implemented at over 80 utilities nationwide.
- **Safety and Reliability Improvements** - TRUGrid™ Automation integrates with your existing Survalent OMS and SCADA systems, enabling swift fault response, minimizing outage durations, and enhancing crew safety while improving customer satisfaction.
- **Cost Reduction and Future-Proofing** - Our modular approach allows GUC to extend the life of existing assets through a gradual deployment that delivers immediate AMI benefits while deferring significant capital expenditures. TRUConnect™ AMI provides a scalable, interoperable system that accommodates future applications without equipment replacement.
- **Environmental Responsibility** - Our TRUSense Gateway™ strategically connects with distributed energy resources, supporting GUC's renewable energy initiatives while TRUConnect™ Edge endpoints feature over-the-air programming capabilities to implement new functionality without hardware replacement.
- **Real-Time Data and Analytics** TRUGrid Automation and Insight enables proactive system monitoring, transformer issue anticipation, and comprehensive dashboard visibility for efficient issue identification and resolution.

Tantalus' solution offers GUC a clear pathway for system interoperability, eliminating unnecessary expenses while providing flexible implementation options. We are committed to supporting your mission of

providing reliable, affordable utility solutions with exceptional customer service in an environmentally responsible manner.

We welcome the opportunity to discuss our qualifications further. Please do not hesitate to contact our Regional Sales Manager, John O'Leary, at (503) 962-0417 or joleary@tantalus.com if you have any questions or need further information. Thank you for your consideration.

Best Regards,

A handwritten signature in black ink, appearing to read "Param Pawar", written over the printed name.

Param Pawar
Vice President of Finance



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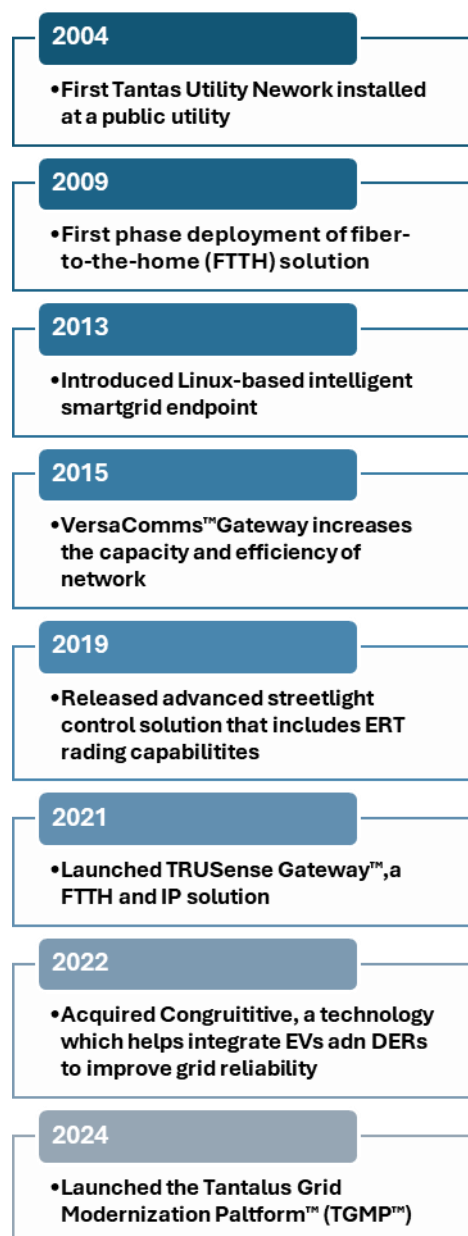
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Company Background & Relevant Experience

Company Overview

Describe the vendor's history, years in the utility industry, size, and core areas of expertise. Include information about ownership structure, location of headquarters, and any relevant subsidiaries or partnerships that support AMI capabilities.



With a rich history dating back to 1989, Tantalus has evolved from a consulting company to a technology powerhouse. Our journey began with providing product engineering services in the wireless communications, security, and industrial computing markets. Over time, we built an inventory of intellectual property and technical expertise suited for data communications applications where many remote devices are monitored and controlled. In 1999, we took a significant step and became a manufacturing company, developing a fixed wireless telemetry network for core utility applications. This long history is a testament to our experience and expertise in the industry.

Today, the Tantalus platform includes a comprehensive smart grid network that can access, transport, translate, and deliver data from multiple edge devices for mission-critical operations and engineering systems behind a utility's firewall. Tantalus' solutions are designed to enable utilities to restore power after major disruptions swiftly, adapt to rapidly changing consumer expectations and population shifts, deliver innovative solutions based on the adoption of distributed energy resources, and evolve their grid infrastructure at their own pace without unnecessary cost or complexity.

With the launch of the Tantalus Grid Management Platform™ (TGMP™), Tantalus is delivering on the promise of new technology capabilities. This platform provides a technology architecture with a secure, flexible, and affordable path to grid modernization by delivering true data interoperability across new and existing devices, systems, and vendors. TGMP gives utilities everything they need to become more resilient, reliable, and sustainable.

Modernizing the grid requires utilities to harness data's power across all devices deployed throughout the network, extending from the substation to emerging devices behind the meter. This emphasis on data is a key trend in the industry, and understanding its importance is crucial for utilities. With the new offerings we bring to market, we are well-positioned to continue succeeding in this data-driven landscape.



US Offices

Tantalus Systems Inc.
1130 Situs Court Suite 230
Raleigh, NC 27606

140 Rowayton Avenue, 2nd Floor
Norwalk, Connecticut 06853

Canada Offices

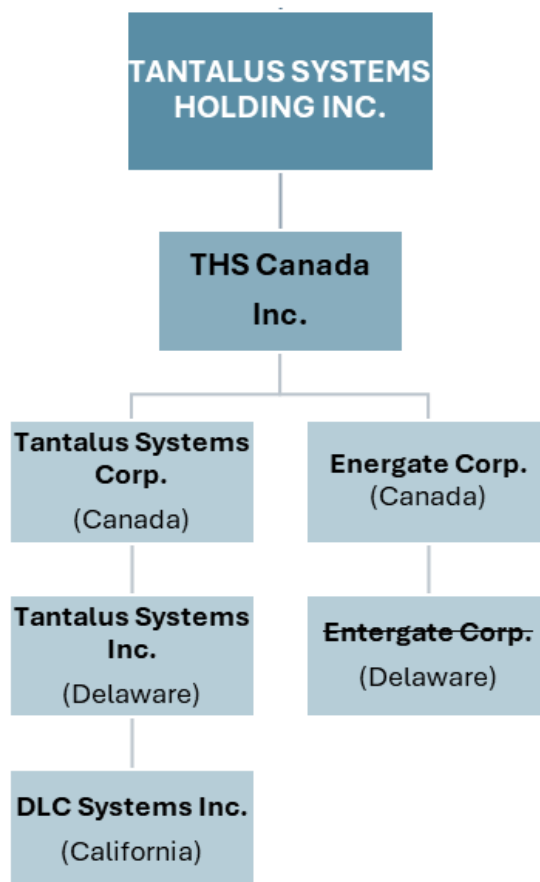
Tantalus Systems Corp.
3555 Gilmore Way, Suite 200
Burnaby, BC V5G 0B3

2500 Solandt Road Suite 320
Kanata, ON K2K 3G5

Tantalus is proud of the ecosystem of **Partnerships and Alliances** we've created, which allows our customers to control how their smart grid evolves.

- Meet our **[Executive Leadership Team](#)**
- Access our latest **[Financial Information](#)**
- Learn about the **[Tantalus Community](#)** for technical support
- Read about **[utilities that are working with Tantalus](#)** to achieve greater operational efficiencies to serve their communities better
- Tantalus is a public company listed on the Toronto Stock Exchange (TSX) under the symbol **[GRID](#)**.

Tantalus Systems Inc. was incorporated in the state of Delaware. FEIN #27-2627723.



Tantalus is proud to support the APPA, the voice of community-owned utilities like yours.

35+

Years providing smart grid solutions

310+

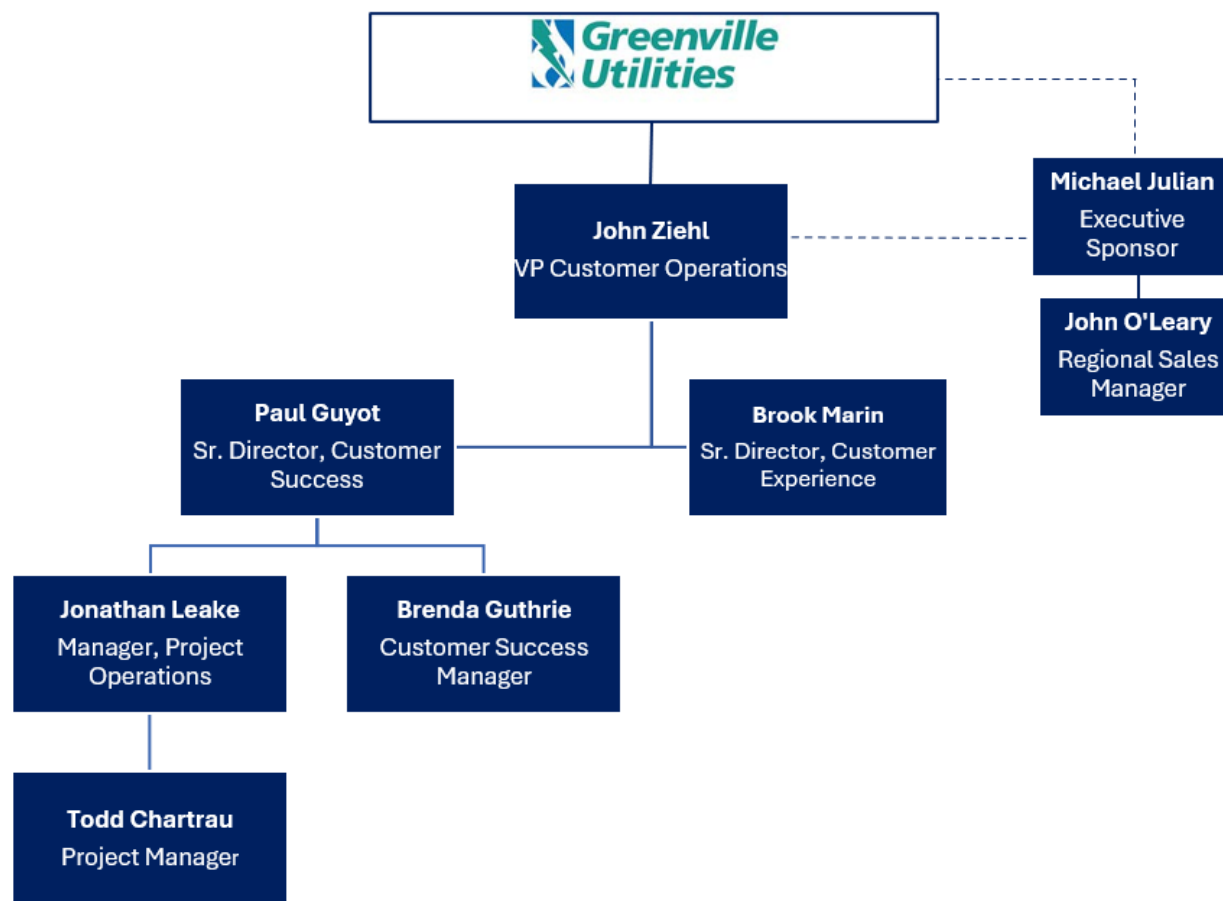
Active members in our users' community

99.4%

Customer retention rate



Key Personnel



Michael Julian, Chief Revenue Officer, Executive Sponsor

Mike Julian currently serves as the Chief Revenue Officer of Tantalus. Mike is responsible for evaluating and pursuing strategic initiatives to accelerate revenue generation through the Tantalus sales organization while working alongside the broader organization and executive leadership to identify paths to scale the company. A former United States Air Force officer, Mike brings over 20 years of leadership, sales, and sales management experience within the Energy and Communications industries through roles at GE, Ericsson, Tekelec, and Catapult Communications. Mike is a graduate of General Electric's Technical Sales Program. He earned an MBA from the W.P. Carey School of Business at Arizona State University and holds a B.S. in Electrical Engineering from Villanova University.

Michael will serve as the Executive Sponsor and facilitate, observe, and guide processes throughout the project's lifetime. He will also be available to help with the decision-making and planning to ensure the Tantalus team has all the guidance and resources needed to maximize the benefits of positive strategies and increase efficiencies to deliver the best possible outcome.

***John Ziehl, VP, Customer Operations***

John Ziehl is an experienced customer operations executive with decades of experience managing complex technology companies' technical operations, manufacturing, test engineering, quality assurance, and technical support departments. At Tantalus, he leads the customer operations group, which consists of technical support, project management, product support, and system support engineering teams.

John will manage all customer support and service aspects throughout the project. He will also oversee the continuing development and implementation of tools, processes, and technology to ensure the operations team's deployment is streamlined and customer satisfaction remains at the highest level throughout each stage of the project timeline.

Paul Guyot, Sr. Director of Customer Success

Paul Guyot has over 25 years of experience in the high-tech sector, specializing in customer operations and deploying highly technical and sophisticated communications systems. He is a certified Project Management Professional (PMP) through the Project Management Institute (PMI) and holds a Professional Engineer (P.Eng.) designation from the government of British Columbia. He also earned an Executive MBA from the Smith School of Business at Queen's University.

Paul will oversee the Customer Success Management, Project Management, and Training teams within Customer Success and manage your customer experience from sales order completion through the project lifecycle. Paul will ensure GUC achieves its desired outcomes with Tantalus products and services by facilitating long-term relationships and ensuring your satisfaction and retention. He will collaborate closely with cross-functional teams, including Customer Experience, Sales, Product Quality, Product Development, Manufacturing, and Marketing, to align our offerings with the GUCwater and electric utilities' unique needs to deliver best-in-class customer service.

Jonathan Leake, Manager of Project Operations

Jonathan Leake is an operations manager with 20 years of professional experience in the municipal power industry. He utilizes his operational experience within utilities to ensure the adoption of new processes, policies, and procedures throughout the organization to ensure a successful project. Jonathan has a BA in International Affairs-Business and Law from Kennesaw State University.

Jonathan will oversee the successful completion of the project by managing resources, directing team members, ensuring on-time delivery within budget, and meeting quality standards. He will help ensure the project runs smoothly, achieves maximum efficiency, and collaborates to achieve our shared business goals.

Todd Chartrau, Project Manager

Todd Chartrau is a Project Manager with over 25 years of experience in the utility industry. He has over 15 years of experience in Quality Assurance management in manufacturing metering and AMI devices. For the last ten years, he has worked directly with utilities in AMR and AMI system implementation. Todd joined Tantalus Systems, allowing his expertise to be leveraged as a Field Project Manager responsible for project management, training, and post-installation support of the installed systems. He has a Bachelor of Science in Industrial Engineering from Georgia Southern University.



Todd will directly manage the AMI deployment team for the project's lifetime. He is experienced in successfully developing business tactics, implementing programs, and effectively driving change initiatives, empowering GUC to benefit from the Tantalus solution starting on day one.

Brook Marin, Sr. Director of Customer Experience

Brook Marin is an established professional in the smart grid industry with experience that includes personnel management, engineering new devices, design and development of software, project management, and technical troubleshooting. Brook has a bachelor's degree in Wireless Engineering - Hardware Option with Networking Specialization from Auburn University.

Brook will ensure a seamless customer experience across all project stages. He will oversee the development and implementation of the technical support strategy and monitor the progress of different departments, ensuring everyone is working to meet the established goals and objectives. He will monitor GUC's feedback and recommend and implement tools and technologies to positively impact your overall satisfaction throughout the project's lifetime.

John O'Leary, Regional Sales Manager

John O'Leary is the Regional Sales Manager for Tantalus and is responsible for the business development of the Northeast territory. Based in Raleigh, NC, John began his career as an Account Manager at Tantalus. Over three years, he has gained extensive industry and product knowledge and has built strong relationships with Tantalus' utility customers and business partners. John graduated from Oregon State University with a Bachelor of Science in Business Administration and Marketing.

John will be an additional resource for GUC during the project's lifetime. He will guide you through pricing, deployment planning, and expediting processes on behalf of Tantalus Systems. In addition, he will remain prepared and available to collaborate with Tantalus and [CLIENT'S] project teams virtually or on-site as needed.

Brenda Guthrie, Customer Success Manager

Brenda Guthrie is the Tantalus Account Manager for the Southeast district. Brenda utilizes her exceptional communication, collaboration, problem-solving skills, and product knowledge to support her customers. She acts as the liaison between her customers and the Tantalus product management. She provides feedback to the Tantalus team to facilitate planning for roadmap functionality. She also has an active role in the Tantalus Use Group. Before joining Tantalus, Brenda supported the utility industry with software solutions, including AMI, energy analysis, energy efficiency, and load disaggregation tools. She has a BS in International Studies from Dayton University.

Brenda will work closely with GUC as you become an active user of the Tantalus Community. She will ensure you have the tools and resources to help maximize the value of our products and services. She will work to build a long-term relationship throughout the lifetime of your system by assisting with annual service renewals, providing training and education resources, and helping to resolve problems as they arise so GUC can achieve its overall business goals.



Relevant Project Experience

- Provide high-level descriptions of at least three AMI projects that include electric, water, and natural gas utilities, preferably projects similar in scale to Greenville Utility Commission's requirements.
- For each project, detail the scope, objectives, challenges encountered, and the outcomes achieved, emphasizing multi-utility deployments, scalability, and adaptability to technological changes.
- If available, include references to relevant case studies, white papers, or public-facing project summaries that highlight successful implementations.

Athens Utilities is a department of the City of Athens that provides electricity, gas, and water/wastewater services. It operates 15 substations, five of which serve as delivery points for TVA. The system includes over 2,000 miles of power lines and 50,000 utility poles. Sixty-seven linemen and support staff maintain this infrastructure and cover 607 square miles. Since 1906, it has expanded from serving a few customers around the downtown area to providing electric service for over 50,000 customers, natural gas for 13,500, and water services for 10,500.

Athens Utilities is committed to delivering excellent, reliable, affordable electricity, natural gas, water, and wastewater services that meet or exceed customer needs and expectations. The department continues to invest in facilities, systems, technology, and highly trained personnel to uphold the excellence that our community deserves.

Scope	<p>The City requested a 500-meter Phase 1 pilot and full deployment, which started in 2022. The City outfitted about 75% of its electric, water, and gas meters with ERT devices, while the remaining meters were read manually. Due to recent growth, they have continued the installation of ERT devices before implementing TRUConnect AMI.</p> <p>The City's unique deployment strategy takes advantage of the flexibility of the TRUConnect solution. They are installing TRUConnect-enabled meters in high-growth areas alongside ERTs while reinstalling ERT-equipped meters in locations currently read manually. This approach allows them to saturate targeted areas with TRUConnect-enabled meters, optimize operations, fully utilize their existing ERT devices, and eliminate manual readings.</p> <p>The full deployment is projected to be completed over five years and is expected to meet or exceed all expectations.</p>
Objectives	<ul style="list-style-type: none">- Improve quality and reliability- Offer customers prepay services- Improve outage management
Challenges	<ul style="list-style-type: none">- Areas of strong population growth (3rd fastest growing in AL)- Vulnerable to severe weather patterns



Rock Hill Utilities is a municipally owned and operated combined utility system providing electric, water, and sewer services within the city and surrounding areas. Rock Hill, South Carolina, is a business-savvy blend of historic charm and responsibly implemented expansion.

Rock Hill is a growing community of nearly 75,000 residents. Rock Hill is the largest city in York County, SC, and the only major South Carolina city in Charlotte. The City of Rock Hill is often recognized for its efforts in various areas. The American Public Power Association has recognized the Electric Department as a leading power provider. The [RP3 Diamond Level Designation](#) places the department among the top providers in the nation.

Scope	Rock Hill Utilities chose the TRUConnect AMI as part of a full turnkey deployment that included purchasing and installing 100% of the electric meters with TRUConnect™ Edge Itron meters (44,000) and 100W ERT-enabled Badger water meters (34,000). A Harris MDM was also installed and integrated. The project was completed over a three-year deployment schedule.
Objectives	<ul style="list-style-type: none">- Detects problems such as power outages or water leaks more quickly- Improve billing accuracy- Provide customers with an online portal
Challenges	<ul style="list-style-type: none">- A rapidly growing community- Vulnerable to severe weather events- Regions with dense vegetation
Outcomes Achieved	<ul style="list-style-type: none">- The availability of interval data gives customers a better understanding of usage patterns and utility costs. With prepayment capabilities, it allows them to pay on a desired day of the month or ahead of time- Remote connect and disconnect options allow water and power to be turned on and off much more quickly- The technology allows the City to detect problems, such as power outages or water leaks in infrastructure, more quickly- Improved billing accuracy and provided customers with an online portal, CustomerConnect, to get information about power and water consumption patterns



Greenwood Commissioners of Public Works (CPW) is a municipal utility that provides clean water, efficient burning of natural gas, and dependable electricity service to Greenwood, SC, and surrounding counties. CPW currently serves 23,382 water customers. CPW's Wise Water Treatment Plant has a total capacity of 33 million gallons per day, treating water from Lake Greenwood. The water system serves industry, business, residential homes, and towns with 600-plus miles of water distribution lines. CPW currently serves 11,917 electric customers. CPW has approximately 200 miles of electric line and six substations and purchases power from Carolina Power Partners and SEPA. CPW currently serves 18,482 gas customers in five counties through 770 miles of gas distribution and 50 miles of gas transmission lines. CPW purchases gas from Williams Transcontinental Gas Pipeline Company and Carolina Gas Transmission to meet our customers' needs.

CPW's customers receive quality service at rates consistently ranking among the lowest in the state and nation. In 2024, Greenwood CPW was recognized with a [Gold Level RP3 Designation](#) from the American Public Power Association for demonstrating high proficiency in reliability, safety, staff development, and system improvement.

Scope	ERT Overlay. Because CPW had already invested in ERT technology, Tantalus delivered a strategic deployment that worked with CPW's resources and budget instead of immediately replacing their existing assets. The migration allowed immediate access to data streams and information and eliminated the need for hand-held devices and drive-by readings, which only delivered monthly information.
Objectives	<ul style="list-style-type: none">- Provide quality services while keeping rates among the lowest in the state and nation- Complete an electric meter changeout with the capability to overlay as many meters as possible upfront and throughout the deployment- A solution scalable to population growth and new technology over the system's lifetime
Challenges	<ul style="list-style-type: none">- Prone to severe weather events- Challenging terrain paired with some water and gas-only territory
Outcomes Achieved	<ul style="list-style-type: none">- A superior outage reporting system delivers messages to the head end within minutes of the event- A solution that proved flexible throughout deployment due to its ability to connect with existing ERT assets from all commodities without interrupting service- Mitigated costs associated with full replacement and extended the useful life of existing assets

Case Studies: Utilities like GUC are working with Tantalus to achieve greater operational efficiencies and serve their communities better. [Their stories are here.](#)

Publications and White Papers: Utilities like GUC can rely on Tantalus to help them solve problems and decide on their smart grid technology investment. [Read more here.](#)

In the **Supporting Documentation**, we have outlined the key personnel assigned to the project, showcasing our team's experience with clients such as GUC.



Project References

List three client references with contact information (name, title, organization, phone, and email) for similar AMI projects. These references should reflect the vendor's experience in handling complex, multi-utility AMI implementations.

Athens Utilities

PO Box 1089
Athens, AL 35612
James A. Gray, AMI Manager
(256) 232-1440 ext. 1528; jgray@athens-utilities.com

Rock Hill Utilities

757 S Anderson Road
Rock Hill, SC 29730
Mike Jolly, Electric Utilities Director
(803) 329-5510; mjolly@cityofrockhill.com

Greenwood Commissioners of Public Works

121 Court Ave W
Greenwood, SC 29646
Michael Parsons, Meter Services
(864) 910-1267; mparsons@greenwoodcpw.com



Technical Approach & Solution Design

AMI System Design & Scalability

Provide a high-level description of the vendor's approach to designing AMI systems for multi-utility environments, including examples of modular or scalable architectures.

Tantalus uses industry-leading tools to develop propagation studies and device placement maps. The design team will start with the electric footprint given by the utility to develop a base model. If water and gas areas don't have electric service, Tantalus will suggest additional infrastructure to cover those areas. The Tantalus solution is modular, using the VersaComms gateway to allow various backhaul connections.

Outline how the system would accommodate future technology advancements and support the integration of additional services (e.g., electric vehicle charging, distributed energy resources).

The [Tantalus Grid Modernization Platform](#) (TGMP™) is a technology architecture designed to deliver true data interoperability across new and existing devices, systems, and vendors. TGMP enables utilities to focus on empowering grid modernization by helping to "Harness the Power of Data" and digitize and modernize their distribution grids. TGMP includes solutions designed to address current utility issues while preparing to add services as required and includes the following components:

- [TRUConnect AMI](#) is a multi-commodity, purpose-built industrial IoT network comprising advanced smart meters and a wide range of intelligent connected devices to improve a utility's resiliency, reliability, and efficiency securely and affordably
- [TRUFlex Load+DER Management](#) helps utilities manage various residential and commercial loads responsively, reliably, and flexibly, all while reducing costs and providing a proactive path to implement demand-side flexibility programs
- [TRUGrid Automation](#) is a suite of applications and analytics tools that leverage Artificial Intelligence (AI) to pinpoint anomalies from power quality data to isolate failing assets and provide utilities with proactive insights to resolve vulnerabilities as they arise
- [TRUSync Grid Data Management](#) is the middleware that interconnects systems to connected devices and manages data flow across the entire utility. TRUSync was purpose-built to harness the power of data and help utilities speed up grid modernization

The Tantalus TRUConnect AMI system is very scalable. A utility can start small and grow its deployment over as many years as it likes. Once a network is in place, AMI and/or advanced applications can be deployed all at once or over time by simply deploying the desired devices and adding the head-end software module.

Once a utility has the initial infrastructure deployed, you may deploy electric and water meters and add Demand Response, Distribution Automation, Street Light Control, and/or other advanced applications. Devices need to be in the gateway's range. If deploying advanced applications over and above AMI, the head-end software can add modules for TRUGrid Automation, TRUFlex Load+DER Management, Street Light Control, etc.



Suppose the utility sees meaningful growth in the number of meters or other devices on the network. In that case, it may need to expand its virtual head end database to provide extra storage, memory, and processing. A gateway or gateways may also need to be added to handle the increased number of devices that need to communicate. There are no RF licenses to purchase to expand capacity. If using cellular backhaul, cellular fees may increase to accommodate the increased communication traffic.



Network Infrastructure Deployment

Describe the general approach to establishing and scaling a network infrastructure that covers urban and rural areas, including RF mesh and any hybrid solutions that may be proposed.

Tantalus designs the network to provide maximum coverage of a utility's territory based on geographical and topographical specifics and access to available WAN technologies. The Tantalus VersaComms Gateway can utilize any IP-based WAN technology for backhaul, including fiber, cellular, microwave, or RF radios. Meters and other devices connect to the gateway via a 900 MHz proprietary spread spectrum meshing technology designed for distance and penetration in rural forested mountainous terrain. This network also operates effectively in urban environments, where building penetration and radio interference immunity are crucial.

Where the utility requires greater granularity, TRUSense Gateways can be provided and installed at the meter socket. These devices can manage up to 250 TRUConnect endpoints. Like the VersaComms Gateway, our system design never fully loads a single device. The system is designed with a 60-75% capacity to ensure room for growth in new service locations and application adoption. TRUSense Gateways can utilize fiber, cellular, and Ethernet for backhaul.

Include examples of past projects where the vendor successfully deployed a flexible, multi-utility AMI network with a mix of communication technologies.

Please refer to the **Company Background and Relevant Experience** section for details on three projects similar in scale to GUC's requirements.

TRUConnect is a hierarchical RF network that operates similarly to other AMI mesh networks, employing self-defined, self-healing communication paths. Any device equipped with a TRUConnect module can function as a network repeater. However, TRUConnect local area networks (LANs) are flatter (i.e., requiring fewer hops to reach the gateway) than those in other mesh systems, making devices less reliant on each other to transmit their messages to the head end. This leads to more efficient communication and more reliable outage reporting.

TRUConnect provides two network repeaters designed to extend the LAN's range and bridge long distances between devices if necessary. One is a pole-mounted device, while the other is a plug-in device that can be installed on a streetlight head. These function as nodes on the TRUConnect LAN, similar to meters and other TRUConnect-enabled devices like load control switches and lighting controllers. As a result, these devices can communicate with one another in various combinations. All devices work together to identify the best paths to the gateways automatically.

The Tantalus VersaComms Gateway leverages IP communications for backhaul, including cellular and fiber. This means that the TRUConnect Network utilizes the communications network available to the utility, depending on geography and resources. Recently, Tantalus launched the TRUSense Gateway, a versatile device that can be installed in any existing ANSI meter socket. It enables a secure communication path for utilities into the premises, provides advanced power quality measurements, and supports broadband initiatives.



Our TRUScan technology allows us to read Electric, Water, and Gas ERTs from Itron and the Neptune R900 and Badger CE MIUs. Many Tantalus municipal customers are multi-commodity utilities, utilizing TRUScan to read electric, water, and gas communication modules.

The table below represents the schedule Tantalus will develop in partnership with GUC. We will address your phased deployment and any other unique needs during the pre-planning phase of the project.

Example High-Level Project Plan

Project Task	Assigned Resources	Start Date	End Date	Dependencies
Project Kickoff	Tantalus/Utility	06/01/25	06/02/25	
	Utility/Tantalus/Meter			
Confirm Meter Forms and Quantities	Dististributor	01/10/25	01/24/25	
Meter Specs Completed	Utility/Meter Dist.	01/24/25	01/31/25	
Begin Phase 1	All	07/13/25	08/01/25	
Network Design	Tantalus/Utility	07/13/25	07/20/25	
Deployment Areas Confirmed	Tantalus/Utility	07/13/25	07/14/25	
Integration Mapping/Planning	Tantalus/Utility	07/13/25	07/20/25	
Head End Setup	Tantalus	07/27/25	08/03/25	Assuming Hosted head end system
Site to Site VPN (Data Center and Utility)	Utility/Tantalus	07/27/25	08/03/25	
Phase 1 Infrastructure Shipped	Tantalus	07/19/25	08/02/25	
CIS Integration	Tantalus/Vendor	08/03/25	09/20/25	Dependent on vendor project lead times
OMS Integration	Tantalus/Vendor	08/03/25	09/20/25	Dependent on vendor project lead times
MDM Integration	Tantalus/Vendor	08/03/25	09/20/25	Dependent on vendor project lead times
First Onsite Training	Tantalus/Utility	08/09/25	08/14/25	
Install Infrastructure	Utility	08/16/25	09/06/25	
Polyphase Meters First Article Acceptance	Utility	04/25/25	05/09/25	Meter specs/order completed per plan and Meter Vendor lead times Per mutually agreed schedule, meter specs/order completed per plan and vendor
Meters (electric) Shipped	Tantalus	06/06/25	07/06/25	
Phase 1 Start Meter (electric) Installs	Utility	06/13/25	07/13/25	
Optimization	Tantalus/Utility	07/13/25	07/27/25	
Second Onsite Training	Tantalus/Utility	06/27/25	07/02/25	
Phase 1 SAT	Tantalus/Utility	07/27/25	08/01/25	
Phase 1 Runtime	Utility	08/01/25	05/30/26	
Begin Phase 2	All	05/30/26		
Network Design	Tantalus/Utility	05/30/26	06/13/26	
Phase 2 Infrastructure Shipped	Tantalus	06/27/26	07/27/26	
Phase 2 Meters (electric) Shipped	Tantalus	08/22/26	02/18/27	Per mutually agreed schedule, meter specs/order completed per plan and Meter
Phase 2 Install Infrastructure	Utility	07/04/26	08/03/26	
Phase 2 Start Meter (electric) Installs	Utility	08/29/26	02/25/27	
Optimization	Tantalus/Utility	03/27/27	04/26/27	
Phase 2 SAT	Tantalus/Utility	05/03/27	05/10/27	



Integration Strategy

Summarize the vendor's approach to integrating AMI systems with Billing, SCADA, GIS, OMS, and potentially ADMS and DERMS, providing examples from similar projects where multi-platform integration was successfully achieved.

Tantalus supports multiple interfaces for sharing meter data. These include MultiSpeak 3.0 and 4.1, DNP3, and common flat file formats such as CSV3, CMEP, MDMR, and HHF.



Tantalus system supports various APIs for integration with third-party tools and applications.

- RESTFUL APIs to select 3rd party applications (ex: Streetlight control, load curtailment).
- DNP3 for SCADA and DERMS systems
- Multispeak 3.0 and 4.1 for OMS, CMS, MDM, and DERMS integrations
- CSV for load management systems
- Geoserver for GIS integration
- CSV, CMEP, HHF, MDMR for billing systems
- SQLite extracts for ETL and analytics systems

A few examples of successful integrations are:

- Oracle Customer Cloud Services–Cedar Falls Utilities
- Esri GIS - Chattanooga EPB, City of Rock Hill, Poplar Bluff Municipal Utilities, and many more.
- Oracle Customer Cloud Service MDMS–TRUConnect has historically integrated with dozens of systems via either mult-speak or flatfile. Should custom integration be required, GUC's needs will be accommodated.
- Survalent SCADA–City of Rock Hill, La Plata Electric Association, Laclede Electric Coop, Town of Smyrna, and more.



Project Management & Implementation Strategy

Phased Rollout Plan

Outline the general phased implementation strategy, including an approach to initial pilot testing, scaling, and risk mitigation for a multi-year AMI deployment.

The Tantalus Customer Operations group includes the Project Management, Field Service Engineering, and Technical Support (Customer Service) teams. These teams work together during project implementation to ensure a successful TRUConnect AMI deployment. The AMI project can be implemented in a phased approach to qualify for performance, integration, or other specific utility requirements. For each phase (typically two) of the deployment, a System Acceptance Test (SAT) can be implemented with a mutually agreed-upon test.

The following is an example of our implementation strategy. If selected, Tantalus will work with GUC's stakeholders to customize the plan to fit your unique deployment needs.

Pre-Deployment Planning

The Tantalus Project Manager (PM) will provide guidance to help ensure compliance with all relevant regulations regarding data privacy, system security, and network planning.

System Deployment

TRUConnect AMI Insight Head End

TRUConnect AMI Insight is the head end for data accessibility, network communication, and storage. It can be hosted in the cloud at the Tantalus data center or on-premises as a virtual machine. The Tantalus Pre-Deployment team will collaborate with the GUC's IT team for server configuration, access, Tantalus software installation, required software, IPsec tunnel(s) for data traffic, and remote access.

Server setup and configuration are typically completed within five business days; however, total completion time will depend on GUC's IT support and availability.

Network Infrastructure

Tantalus Field Engineers will perform a remote system design using advanced software to proactively determine RF propagation and identify the optimal locations for network infrastructure equipment, ensuring coverage and capacity.

If the selected location is unsuitable, GUC will provide alternate locations to the Project Manager, who will review them with the Pre-Deployment team for design validation.



Meters (and Tantalus AMI devices)

The Tantalus Project Manager will work with GUC and the meter distributor to ensure the required meter specifications, including type, configuration, and quantity, are correct. The meter manufacturer will provide the first article meters (FAM) for GUC to test and approve. Product shipment will not be scheduled until this process is complete. This typically pertains to polyphase (PP) meters but may also include single-phase (SP) meters.

Meters will be shipped based on a mutually agreed-upon delivery schedule that is aligned with the installation timeline. Tantalus recommends maintaining a minimum of 2 months' deployment inventory to ensure continuous availability.

The Tantalus PM will work with GUC's Business System vendors (CIS, MDMS, etc.) to create an automated meter exchange information interface, preferably via Multipeak, subject to vendor support. The PM will manage and provide guidance on best practices and assist in any necessary validation and testing. While the integration does not require completion before installation, it will be planned during the project kickoff.

The Tantalus PM will work with GUC to develop a meter installation schedule based on routes, read dates, and billing dates. A 'blackout schedule' will be established to prevent meter exchanges during meter reading/billing activities in specific areas. GUC's billing personnel will determine the duration of this blackout period.

Data exchange between the head end and the Business Systems will occur at least once per night; however, this will be configured based on GUC requirements.

GUC's installation team or contractor will be required to provide data such as the old meter number, new meter number, out-read, set-read, date, time, and GIS location (in decimal form). Additionally, best practices should include photographs of the site as found, the old meter as found, the meter socket, the new meter installed, and the site as left. If a faulty meter socket is discovered, necessary repairs are recommended before installing the new AMI meter.

Network communication and meter authentication will be checked daily by the Tantalus PM to address any communication issues promptly.

Once the final AMI device (meter or other Tantalus network device) is installed, the Tantalus PM will provide recommendations for network optimization to achieve the contracted meter read rate (MRR).

Customer Education

The Tantalus Project Manager (PM) will provide all the necessary training to ensure GUC personnel are well-versed in the new AMI system's configuration, deployment, operation, and billing. Training will be conducted onsite, typically in 2-3 visits during the deployment, with one additional training session at the end of the project deployment.

Additional training is available through Tantalus University. Tantalus University offers 4-6 courses throughout the year. These courses are spread across the U.S., usually at other utilities' offices.



Ongoing Operations and Maintenance

Network Monitoring

GUC will monitor the AMI network for performance issues and take corrective actions. The Tantalus Technical Support team can provide remote assistance or guidance on issues that may arise.

System Upgrades

Regular updates to the AMI system software, including new features (as applicable), security updates, bug fixes, and improvements, will be managed by the Tantalus Technical Support team in conjunction with the GUC support team.

Provide examples of how phased rollouts have been managed in previous projects, including any lessons learned from initial pilot areas and strategies for addressing project scale-up.

The Tantalus Project Manager will collaborate with GUC's stakeholders to establish a phased rollout with specific milestones. This phased approach should include meters for each type: single-phase, polyphase, remote disconnect, etc. Additionally, billing levels should be addressed. Full integration may not be achievable in the first phase, depending on the CIS system and its integration timeline. The scale-up of the project typically relies on the infrastructure installer, meter installer, available inventory, and the project timeline.



Data Security and Compliance Strategy

Security Framework & Protocol

Provide an overview of the vendor's security framework, including encryption standards, access control, device authentication, and intrusion detection measures, specifically for AMI systems in multi-utility environments.

Tantalus is committed to ensuring the security and resilience of its systems. As we strive to deliver more and more value to utilities through fine-grained data, low-latency control, and intelligent analytics, it is ever more important to protect devices, interfaces, and systems from unwanted access, maintain the confidentiality of private data, guarantee the authenticity of devices and users, and ensure that key services and important functions remain available and operational. **Tantalus regularly monitors and enhances its cybersecurity protocols and policies at both the technical and organizational levels so that we are at or exceed industry standards.**

Guidance

The recommendations in NIST IR 7628 guide the Tantalus Security Architecture, "Guidelines for Smart Grid Cybersecurity". This includes the selection of cryptographic algorithms (e.g., FIPS 197 and FIPS 180-4), the details of generation, distribution, and management of keys (e.g., NIST SP 800-57), and access control and credential management.

Objectives

Following NIST IR 7628, Tantalus' security framework aims to provide:

- **Confidentiality:** Private data cannot be intercepted or accessed by an unauthorized party
- **Integrity:** Neither data nor software can be modified through malicious activity or corruption
- **Availability:** The system (head-end, network, endpoints, and devices) must remain operational in the event of an attack or other potential interruption (e.g., environmental event or technological malfunction)
- **Authenticity:** The identity of communicating devices and users is validated before allowing connection or access

Overview

- Tantalus uses Security-Enhanced Linux (SELinux), a component of the Linux operating system that enables access controls for processes, applications, and users within the system
- Unique cryptographic keys (RSA) and secure shells (SSH) restrict access to internet-connected components for maintenance and upgrades
- LDAP support provided by the head-end application user interface to manage user accounts and enforce consistent password rules (e.g., complexity, length, aging)
- The head end user interface provides role-based access controls (RBAC) to limit permissions by business function (e.g., CSR, network administrator)



- Head end system support for regular database backups for disaster recovery and ransomware protection
- Head end file integrity monitoring and configuration management to identify, notify, and, where possible rectify integrity problems, whether accidental or malicious
- Support for head end virtualization for resiliency and security control
- The Nessus vulnerability scan is utilized to identify the required security patches for the system
- Network devices are provisioned with unique cryptographic certificates
- All on-air network communications are fully encrypted
- Cryptographically secure remote software upgrades
- Multiple layers of redundancy in hardware and software across the network to ensure operations and availability

For more information, please refer to the **Tantalus Cybersecurity Framework** document included with the Supporting Documentation.

Future-Ready Security Capabilities

Outline the vendor's preparedness to adapt to emerging security technologies, such as AI-driven threat detection, and any flexibility in the security architecture that would allow for future upgrades.

The Tantalus security architecture includes mechanisms for integrating into the utility IT security environment. For example, it supports a centralized syslog server, which allows third-party threat detection tools like CrowdStrike to analyze access requests.

For a second example, the system supports LDAP authentication, which allows centralized authentication and an enterprise view of login requests. These are two examples of how Tantalus continues to adapt to emerging security technologies and is flexible about employing future enhancements.

For more information, please refer to the **Tantalus Cybersecurity Framework** document included with the Supporting Documentation.



Training & Knowledge Transfer Plan

Initial Training Program Structure

- Provide an outline of the training program that would be offered to Greenville Utilities Commission staff, including modules tailored to each utility service (electric, water, natural gas) and roles (e.g., field operations, IT, customer support).
- Include descriptions of training content for system operations, troubleshooting, and data management.

Tantalus recognizes the value of knowledge transfer to a successful deployment. Years of experience have taught us that training must be provided throughout the project in formal and informal settings. Knowledge transfer starts from the very beginning of the project kick-off. To ensure a baseline for everyone involved, Tantalus will familiarize the utility team members with basic information and an overview of the Tantalus TRUConnect system, technology, and operational concepts. This is followed by an extensive training program conducted at the early stages of project deployment utilizing your Tantalus TRUConnect network and equipment. Additional training is provided further into the deployment.

The training sessions are designed to be flexible, allowing them to be divided into multiple sessions based on the needs of the participants. This ensures that the training can be tailored to the specific requirements of the Greenville Utilities Commission staff, making them feel accommodated and considered.





In addition to the training provided during implementation, Tantulus is committed to providing numerous ongoing opportunities for training and education to all users. This emphasis on continuous learning is designed to make the staff feel supported and empowered, knowing they can always improve their skills and knowledge.



The annual [Tantulus User Conference \(TUC\)](#) is a significant event that provides members of our growing user community of over 300 utilities across the US, Canada, and the Caribbean with an opportunity to gather, receive hands-on technical training, help shape product development, and learn about new ways to maximize the performance and value of their Tantulus investments. This emphasis on community and innovation is designed to make the staff feel part of a larger network and inspired by new ideas.



[Tantulus University™](#). Tantulus University is a comprehensive training and certification series available to TRUConnect Users. Tantulus University is designed to provide a full range of advanced training opportunities for TRUConnect Users across all utility departments. These valuable training courses will ensure that Users can maximize value from TRUConnect AMI investments, optimize system performance, and enhance technical skillsets. Class sizes are limited to ensure students receive focused and personalized training. Students who complete Tantulus U courses will be endorsed as Certified TRUConnect Users. Most classes are available online and in person.



[Webinars](#) for TRUConnect Users. Tantulus offers its user community ongoing opportunities to improve operational efficiency or utilize more Insight head-end features. Users can join our webinars focused on adapting and getting the most out of their TRUConnect investment. Hear from our subject matter experts, download presentations, and ask your questions during the live webinar. All you need is internet access and good audio through your computer, or if needed, you can dial in through the number provided upon registration.

Users can also log into the [Tantulus Community](#), an online resource created for our utility customers. It provides a wealth of resources that enable you to get the most out of your investment in Tantulus. Features include:

- Support for TRUConnect Insight customers
- Current release notes and manuals
- Discussion groups on topics of interest to utilities
- Live chat services with our customer operations team, providing one-on-one technical support to our premium clients



Knowledge Transfer & Documentation

Outline the approach to knowledge transfer, including how the vendor will ensure that utility staff gain the knowledge necessary to independently operate and maintain the AMI system post-deployment.

Tantalus will familiarize the utility team members with basic information and an overview of the TRUConnect AMI system, technology, and operational concepts to ensure a baseline for everyone involved. This is followed by an extensive training program conducted at the early stages of project deployment using your Tantalus TRUConnect Network and equipment. Additional training is provided further into the deployment.

Tantalus technical support is available as Standard or Premium. Both options give you access to the team during designated hours by email or phone.

Please refer to the **Training and Knowledge Transfer Plan** section for more details.

Include information on documentation provided (e.g., user manuals, maintenance guidelines) to support continued learning and reference.

Tantalus users can access documentation to support continued learning and, for reference, access the [Tantalus Community](#), an online resource created exclusively for our utility customers to provide resources that enable them to maximize their investment in Tantalus. Please refer to the **Training and Knowledge Transfer Plan** section for more details.



Data Analytics & Predictive Capability

Data Management & Analytics Approach

Provide an overview of the vendor's data management protocols and analytics capabilities, including general approaches to operational intelligence, usage forecasting, and predictive maintenance. RFP Instructions

Overview of Data Management Protocols

Tantalus Systems' AMI platform is built on robust data management protocols that ensure secure, reliable, and scalable data collection, processing, and storage. Key features include:

- **Scalable Infrastructure:** A distributed architecture supporting large-scale deployments while ensuring real-time and batch data processing
- **Edge Intelligence:** Data preprocessing at the meter or gateway level to alleviate network congestion and improve operational efficiency
- **Interoperability:** Compatibility with industry-standard protocols such as DNP3, IEEE 2030.5, Modbus, Multispeak, and REST APIs to enable seamless integration with third-party systems

Our Analytics solutions incorporate a suite of analytics tools and software applications to deliver results, including:

- **TRUGrid Reliability:** a data analytics tool that harnesses power quality data collected through Tantalus' TRUConnect™ AMI solution. It helps utilities identify failing assets within an electrical distribution grid that could lead to power outages or potential fires.
- **TRUGrid Transformer:** a data analytics tool that visualizes real-time transformer data across the grid, enabling utilities to detect voltage issues, sags, swells, and the total hours a transformer has experienced under- or overloading. Utilities can determine when to replace or repair a transformer using this analytics tool, which aids in preventing catastrophic outages.

Operational Intelligence

Tantalus leverages advanced analytics to provide utilities with actionable insights into grid operations, improving efficiency and reliability. Our operational intelligence capabilities include:

- **Real-time grid Monitoring:** Ongoing analysis of voltage fluctuations, power quality, and demand patterns
- **Fault Detection and Isolation:** Automated identification of outages and transient faults, allowing faster response times and enhanced reliability
- **Asset Health Monitoring:** Condition-based evaluation of transformers, meters, and other critical infrastructure to optimize asset performance



Usage Forecasting

Tantalus provides utilities with the tools to analyze historical consumption patterns, enabling informed decision-making regarding energy distribution and demand management. Our current capabilities include:

- **Historical Trend Analysis:** Customers can examine aggregated consumption data over time to identify usage patterns and fluctuations in seasonal demand.
- **Peak Demand Insights:** The system highlights peak usage periods, assisting utilities in planning demand response strategies and optimizing grid operations.
- **Customizable Data Visualizations:** User-friendly dashboards and reporting tools facilitate the analysis of trends and forecasting based on historical data.

Looking ahead, Tantalus is actively developing machine learning-driven load forecasting capabilities. These capabilities will enhance predictive accuracy by integrating real-time data with external factors, such as weather patterns and grid conditions. These enhancements will further empower utilities with proactive demand management strategies.

Predictive Maintenance

Our predictive maintenance capabilities help utilities prevent failures and extend asset lifespan:

- **Anomaly Detection:** AI algorithms identify irregularities in meter data, transformer loads, and network behavior
- **Failure Prediction Models:** Machine learning models evaluate asset degradation trends, facilitating proactive maintenance scheduling
- **Automated Alerts:** Customizable notifications for potential equipment failures reduce unplanned outages and operational costs



Future Technology Adaptability

Explain how the proposed system is designed to adapt to advancements in technology, including AI and machine learning, to address future utility needs. Vendors should describe strategies for incorporating emerging tools to enhance system functionality, such as integrating advanced analytics, improving load forecasting, and enabling proactive maintenance.

Adaptability to Technological Advancements

Tantalus is committed to continuous innovation. Our AMI platform evolves alongside emerging technologies such as AI, machine learning, and advanced analytics to meet future utility needs. Our system is designed with modular architecture, flexible data management, and open APIs, allowing seamless integration of new advancements that enhance utility operations.

Comprehensive Grid Data Management & Interoperability

At the core of our future-ready strategy is Tantalus' interoperable grid data management platform, which enables utilities to aggregate and leverage data from all critical sources, including:

- SCADA (Supervisory Control and Data Acquisition)
- DERMS (Distributed Energy Resource Management Systems)
- AMI (Advanced Metering Infrastructure)
- Load Management & Communications Networks
- Weather Data & GIS Mapping
- Customer Information Systems (CIS)

Utilities can generate comprehensive insights, improve situational awareness, and make data-driven decisions by unifying these data streams. Utility systems can also pull advanced analytics directly into their respective platforms using the same grid data management system, ensuring seamless integration and enhanced operational intelligence.

Advancements in AI, Machine Learning & Analytics

Tantalus is actively investing in AI and ML-driven capabilities, with ongoing initiatives to drive innovation, including:

- Expanding a dedicated data science team to develop and deploy AI-driven solutions for grid optimization, fault detection, and asset management
- Leveraging leading analytics platforms to enhance data processing, predictive insights, and operational efficiencies
- Ongoing partnerships with AMII (Alberta Machine Intelligence Institute) and SFU's Sustainable Energy Engineering Department ensure we remain at the forefront of AI and sustainable energy innovations



Enhancing Predictive Maintenance and Load Forecasting

Tantalus is developing AI-enhanced load forecasting capabilities that integrate historical consumption trends, real-time grid conditions, and external factors such as weather patterns to provide more accurate predictions. This evolution will build upon our existing trend analysis tools, empowering utilities to expect demand fluctuations and optimize grid performance. Our platform will integrate machine learning-driven failure prediction models for predictive maintenance, enabling utilities to detect equipment degradation early, optimize asset management, and reduce unplanned outages.

Introducing Waveform Power Measurement at the Grid Edge

Tantalus is pioneering waveform power measurement analytics across all Tantalus grid edge devices. Utilities will gain deep visibility into power quality, fault events, and equipment performance by embedding high-resolution waveform analytics into our edge devices. By improving grid reliability and efficiency, utilities will benefit from real-time anomaly detection, power quality monitoring, and faster fault localization.

Conclusion

Our future-proof architecture, open data management platform, and commitment to AI-driven innovation ensure that the Tantalus AMI solutions will continuously evolve to meet the dynamic needs of modern utilities. By expanding our data science team, leveraging leading analytics platforms, and partnering with industry leaders, we are actively integrating AI, ML, and advanced analytics to drive the next generation of grid intelligence.



Required Forms & Adherence to GUC Policy and Other Requirements

The Respondent must fill out all the forms included in this RFQ and return them with your submission. Failure of the Respondent to provide any of the required forms may result in your proposal being rejected for non-responsiveness. These required forms will not count against the maximum page count (indicated above) for your response.

We have completed the following forms provided in the RFQ. They are included in the **Supporting Documentation/FORMS** folder.

Insurance Acknowledgement Statement – Tantalus acknowledges GUC’s insurance requirements and confirms that it will maintain appropriate insurance coverage naming GUC as an additional insured as set forth in the final contract.

Index of Supporting Documentation

Tantalus Cybersecurity Framework

TRUConnect AMI

TRUConnect Edge Itron CENTRON C1S

TRUConnect Edge Itron CENTRON C2S

TRUConnect Edge Itron CENTRON CP3

TRUSense Solution



Glossary of Terminology

Top Level Solutions & Suites	
Trade Name	Description
Tantalus Grid Modernization Platform™ (TGMP™)	A technology architecture that provides a secure, flexible, and affordable path to grid modernization by delivering true data interoperability across new and existing systems and vendors.
TRUConnect™ AMI	Tantalus' multi-commodity, purpose-built AMI solution comprises advanced smart meters and other connected devices, the communication network, and the head end.
TRUGrid Automation™	A suite of applications and analytics tools that leverage AI to pinpoint anomalies in power quality data, isolate failing assets, and provide utilities with proactive insights to resolve vulnerabilities as they arise.
TRUSync™ Grid Data Management	A revolutionary grid data management system that automates integrating all utility data across any device, system, or vendor.
TRUFlex™ Load+DER Management	A portfolio of software applications, connected devices, and edge applications that harness the power of grid data and establish interactive demand flexibility with behind-the-meter loads, such as EV chargers, solar and storage inverters, and smart appliances.
TRUSense Gateway™	A multi-purpose device installed in any existing ANSI meter socket that creates a secure utility communication path into the premises provides advanced power quality measurements and supports broadband initiatives.
TRUConnect™ AMI	
Trade Name	Description
TRUConnect™ AMI	Tantalus' multi-commodity, purpose-built AMI solution comprises advanced smart meters and other connected devices, the communication network, and the head end.
Insight	The head end supports TRUConnect AMI.
TRUConnect™ Network Infrastructure	The field devices collectively form the TRUConnect Network.
TRUConnect™ Network	The communication network of the TRUConnect AMI solution.
TRUScan™	A firmware-based application for reading water, gas, and electricity meters fitted with Itron ERT, Neptune R900, or Badger ORION CE modules.
VersaComms Gateway™	A flexible, high-capacity TRUConnect Network Infrastructure device that transfers messages between connected devices and the AMI head end.
LAN Repeater	A TRUConnect Network Infrastructure device that provides LAN communications into pockets of low connectivity in a small and easily deployed package. It can be attached to a utility pole or other elevated location.



Streetlight LAN Repeater	A TRUConnect Network Infrastructure device that provides LAN communications into pockets of low connectivity in a small and easily deployed package. Attaches to a streetlight using an ANSI standard connection.
IP Socket Gateway	A TRUConnect Network Infrastructure device that ensures fast and reliable data communication via Ethernet for Fiber-to-the-Home/Premise (FTTH/FTTP) or cable networks.
TRUConnect™ Edge	A hardware module that adds TRUConnect Network communications and advanced computing capability to electricity meters.
TRUEdge®	Tantalus' unique processing and communications technology enables the TRUConnect Edge module.
TRUPush	The feature pushes readings from the meter to the head end in real time.
TRUGrid™ Automation	
Trade Name	Description
TRUGrid™ Automation	A suite of applications and analytics tools that leverage AI to pinpoint anomalies in power quality data, isolate failing assets, and provide utilities with proactive insights to resolve vulnerabilities as they arise.
TRUGrid™ Reliability	A data analytics tool that leverages power quality data accessed through Tantalus' TRUConnect™ AMI solution to help utilities identify failing assets deployed throughout an electric distribution grid that can lead to power outages or potential fires.
TRUGrid™ Transformer	A data analytics tool that visualizes real-time transformer data across the grid so utilities can identify voltage issues, sags and swells, and how many hours a transformer has been under or overloaded.
DA Bridge Modem	Intelligent devices utilize the TRUConnect Network to communicate serially with DNP3.0 distribution automation equipment across the grid.
Closed Loop Voltage Reduction (CLVR™)	A software application that monitors voltage data from a set of monitored meters and serves that data to a SCADA system to control electrical feeder voltage.
TRUGrid™ Restore	A software application that restores power to electric customers, using connectivity models and feeder conditions to locate and isolate faults automatically and reduce the duration of power outages.
TRUGrid™ Mitigate	A software application that allows electric utilities to manage distribution systems and assets effectively, safely, and rapidly to mitigate the risks of wildfires, extreme weather events, or natural disasters by automating the control schema of distribution reclosers.
TRUGrid™ Stabilize	An application that controls load tap changers, capacitor banks, and line voltage regulators to flatten the voltage profile along distribution lines.
TRUGrid™ Balance	Automatic load balancing by moving line sections from one feeder to another by moving the tie switch location.
TRUGrid™ SCADA	A distributed client/server supervisory control and data acquisition (SCADA) system that supports multiple front-end processors, servers, and operator workstations.



Grid Data Management	
Trade Name	Description
TRUSync™ Grid Data Management	A revolutionary grid data management system that automates integrating all utility data across any device, system, or vendor.
TRUSync™ Cellular Data Node	Intelligent, flexible management of field communications to maximize throughput and speed decision-making for data acquisition and real-time control
TRUFlex™ Load+DER Management	
Trade Name	Description
TRUFlex™ Load+DER Management	A portfolio of software applications, connected devices, and edge applications that harness the power of grid data and establish interactive demand flexibility with behind-the-meter loads, such as EV chargers, solar and storage inverters, and smart appliances.
TRUFlex™ Load Controller	A field device ideal for retrofitting traditional loads such as electric water heaters and central air conditioning systems to unleash tremendous value through demand-side flexibility programs.
TRUFlex™ Load Champ	This is the ideal answer for retrofitting control onto large loads and Level 2 electric vehicle chargers that exceed the 30-amp capacity of typical load control switches.
TRUFlex™ Protect	A unique and revolutionary application that makes emergency load shedding as painless as possible for utilities and the customers they serve.
TRUFlex™ Control Gateway	A field device that manages DERs within a specific zone to stay within demand limits and meet defined goals.
TRUFlex™ DER Gateway	A field device that integrates customer DERs with utility operational systems so they can be monitored and controlled to ensure grid stability.
Opticycle™	An application loaded onto Tantalus' suite of LC-2300 load control switches delivers adaptive cycling through analytics to provide customized control adapted to each premise's unique building envelope and site characteristics.
TRULight Intelligence™	It provides an easy-to-deploy solution with advanced features that leverage the TRUConnect Network for economical operation. It supports advanced and easy-to-deploy lighting control capabilities economically.

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This proposal, including all copies, exhibits, attachments, related materials and subsequent amendments (collectively, the “**Materials**”), contains information that is confidential and proprietary to Tantalus Systems Inc. (“**Tantalus**”). The Materials are provided in confidence for use solely by the recipient to whom it is addressed and only for the purpose for which the Materials are supplied.

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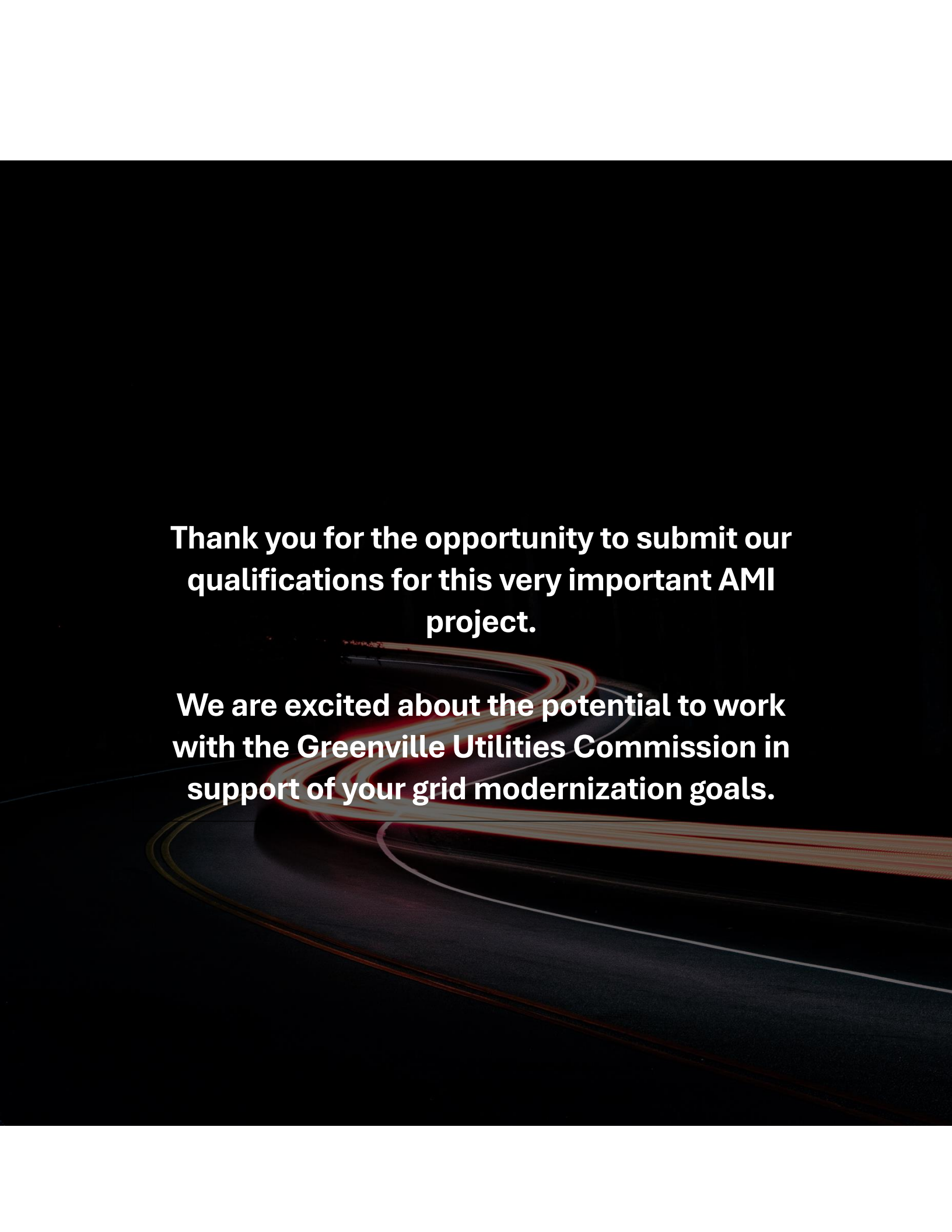
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Tantalus Systems Inc.
Attn: Erin T. Lee (fka Gould), Manager, Contracts
1130 Situs Court, Suite 230
Raleigh, NC 27606
Email to: egould@tantalus.com

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While Tantalus’ proposal will address customer-provided requirements in the RFP, customer requirements often change between release of an RFP and final contract negotiations. For this reason, the RFP and this proposal response are not intended for incorporation into contract documents in their entirety, but instead should be used as a basis for guiding negotiations in order to establish and finalize contract commitments and obligations.

The background is a dark, almost black, space filled with dynamic, glowing light trails. These trails, in shades of red, orange, and white, curve and swirl across the frame, creating a sense of motion and energy. They appear to be light trails from a long-exposure photograph of a moving light source, possibly a vehicle or a particle beam, against a dark sky or surface.

**Thank you for the opportunity to submit our
qualifications for this very important AMI
project.**

**We are excited about the potential to work
with the Greenville Utilities Commission in
support of your grid modernization goals.**