

CONSULTATION AGREEMENT WITH THE CITY OF GEORGETOWN

This Consultation Agreement (the “Agreement”) is entered into and made effective on the _____ day of _____, 2022 by and between Power Systems Engineering, Inc. (“Consultant”) and the City of Georgetown, Texas, a home-rule municipal corporation (“City”).

- 1. Scope of Services.** Consultant agrees to provide such services as further described in **Exhibit A**, which is attached and incorporated herein. Any request by the Consultant for an increase in the Scope of Services and an increase in the amount listed in paragraph four of this Agreement shall be made and approved by the City prior to the Consultant providing such services, or the right to payment for such additional services shall be **waived**. If there is a dispute between the Consultant and the City respecting any service provided or to be provided hereunder by the Consultant, including a dispute as to whether such service is additional to the Scope of Services included in this Agreement, the Consultant agrees to continue providing on a timely basis all services to be provided by the Consultant hereunder, including any service as to which there is a dispute, provided that City agrees to compensate Consultant for such services as provided herein.
- 2. Supplement Provisions.** Supplemental provisions applicable to this Agreement are included in **Exhibit B** and incorporated herein by reference.
- 3. City Terms Prevail.** In the event there is a conflict between a term in **Exhibit A** or **Exhibit B** and a term in this agreement, the terms of this agreement shall prevail.
- 4. Total Compensation.** The total compensation paid by the City to the Consultant, including expenses, under this agreement shall not exceed \$ 68,105.00 Payment schedule will be made in accordance with **Exhibit C**, which is attached and incorporated herein.
- 5. Term.** The term of this Agreement shall be in effect until the services have been completed by Consultant, but in no event shall the term extend beyond one (1) year from the date of this Agreement. Upon completion of the original term of the Agreement and upon mutual agreement of both parties, the original Agreement may be renewed for up to three (3) additional one- (1-) year terms for a total of four (4) years. The renewal will be under the same terms and conditions as the original Agreement. In the event a new Agreement cannot be executed at the anniversary date of the original term or any renewal term, this Agreement may be renewed on a month-to-month basis until a new Agreement is executed.
- 6. Insurance.** Consultant shall procure and maintain at its sole cost and expense for the duration of this Agreement insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, volunteers, employees or subcontractors. The policies, limits and endorsements required are set forth in **Exhibit D**. Consultant’s insurance certificate satisfying the City insurance requirements is attached as **Exhibit E**.
- 7. INDEMNITY. THE CONSULTANT SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE CITY, ITS OFFICERS, AGENTS, SERVANTS AND EMPLOYEES FROM AND AGAINST ANY AND ALL SUITS, ACTIONS, LEGAL PROCEEDINGS,**

CAUSES OF ACTION, CLAIMS, DEMANDS, DAMAGES, JUDGMENTS, LOSSES, LIENS, COSTS, EXPENSES, ATTORNEYS' FEES AND ANY AND ALL OTHER COSTS, FEES AND/OR CLAIMS OF ANY KIND OR DESCRIPTION ARISING OUT OF, IN CONNECTION WITH OR RESULTING FROM THE AGREEMENT OR SERVICES PROVIDED UNDER THE AGREEMENT OR FROM ITS NEGLIGENCE OR WILLFUL ACT WHETHER SUCH ACT BE BY THE CONSULTANT OR ITS DESIGNEE. THE CITY, AS A GOVERNMENTAL ENTITY IN THE STATE OF TEXAS, SHALL NOT INDEMNIFY THE CONSULTANT.

8. **Release by Consultant.** Except in the case of gross negligence, sole negligence or willful misconduct by the City, the Consultant releases, relinquishes and discharges the City, its elected officials, officers, directors, agents, employees, representatives and volunteers from all claims, demands, and causes of action of every kind and character, including the cost of defense, for any injury to or death of any person (whether employees of either party or other third parties) and any loss or damage to any property that is caused by or alleged to be caused by, arising out of, or in connection with the work it performed under this Agreement. This release shall apply regardless of whether the claims, demands and/or causes of action are covered in whole or in part by insurance.
9. **Payment Terms.** All payments will be processed in accordance with Texas Prompt Payment Act, Texas Government Code, Subtitle F, Chapter 2251. The City will pay Consultant within thirty days after of receipt of a correct invoice for services. The Consultant may charge a late fee (fee shall not be greater than that permitted under the Texas Prompt Payment Act) for payments not made in accordance with this prompt payment policy; however, the policy does not apply to payments made by the City in the event: (a) there is a bona fide dispute between the City and Consultant concerning the goods, supplies, materials, equipment delivered, or the services performed, that causes the payment to be late; (b) the terms of a federal agreement, grant, regulation or statute prevents the City from making a timely payment with Federal funds; (c) there is a bona fide dispute between the Consultant and a subcontractor and its suppliers concerning goods, supplies, material or equipment delivered, or the services performed, which caused the payment to be late; or (d) the invoice is not mailed to the City in accordance with Agreement.
10. **Non-Appropriation.** This Agreement is a commitment of City's current revenues only. The City shall have the right to terminate this Agreement at the end of any City fiscal year if the governing body of the city does not appropriate funds sufficient to purchase the services. The City may terminate for non-appropriation by giving the Consultant a written notice of termination at the end of its then current fiscal year. In the event of a termination for non-appropriation, City shall pay Consultant for all services rendered up until the date of termination.
11. **Termination for Convenience.** The City may terminate this Agreement, in whole or in part, without cause any time upon thirty (30) calendar days' prior written notice. Upon receipt of a notice of termination, the Consultant shall promptly cease all further work pursuant to the Agreement, with such exceptions, if any, specified in the notice of termination. The City shall

pay the Consultant for all services performed and obligations incurred prior to the date of termination.

12. **Termination for Cause.** In addition to the termination rights described above, either party may terminate this Agreement effective upon written notice to the other if the other breaches any of the terms and conditions of this Agreement and fails to cure that breach within thirty (30) days after receiving written notice of the breach. In the event of an incurable breach, the non-breaching party may terminate this Agreement effective immediately upon written notice to the breaching party. In addition to all other remedies available under law and in equity, the City may remove the Consultant from the City's Vendor list in the event that this Agreement is terminated for cause and any offer submitted by the Consultant may be disqualified for up to three (3) years.
13. **Ownership of Documents.** The Consultant shall retain ownership of all associated work products and documentation obtained from or created by the Consultant pursuant to this Agreement. Upon full payment for services rendered, Consultant shall grant City a license to use all materials for the sole purpose of developing, implementing, and maintaining any future systems or projects recommended as part of the Consultant's assessment and analysis. City shall not provide any work products or documentation developed under this Agreement to any third party for any other purpose without first obtaining Consultant's express written consent. Any reuse or modification of any products or documents outside of the specified purpose shall be at City's sole risk and Consultant shall not be responsible for any liabilities, claims, or damages, including attorneys' fees, arising out of the reuse or modification. Consultant shall deliver all documents or other work product to the City upon request, including original versions if specified in the request.
14. **Confidential Information.** Each party agrees not to use, disclose, sell, license, publish, reproduce or otherwise make available the information of the other party ("Confidential Information") except and only to the extent necessary to perform under this Agreement or as required by the Texas Public Information Act or other applicable law. Parties shall endeavor to designate Confidential Information as such at the time of disclosure. Each party agrees to secure and protect the other party's Confidential Information in a manner consistent with the maintenance of the other party's confidential and proprietary rights in the information and to take appropriate action by instruction or agreement with its employees, consultants, or other agents who are permitted access to the other party's Confidential Information to satisfy its obligations under this Section. This paragraph shall survive the term of the Agreement. Confidential Information shall not include any information:
 - 14.1.1.1. That is in the public domain at the time of disclosure or becomes part of the public domain after disclosure, by publication or otherwise, except by breach of this Agreement;
 - 14.1.1.2. Received by a third party not known by the receiving party to be under the obligations of a confidentiality agreement with the disclosing party; or
 - 14.1.1.3. Is shown to have been independently developed by the receiving party without reference to any confidential information shared under this Agreement.

15. **Notices.** Any notice or communication permitted or required by this Agreement shall be deemed effective when personally delivered or deposited, postage prepaid, in the first class mail of the United States properly, or sent via electronic means, addressed to the appropriate party at the address set forth below:

Notice to the Consultant:

Power System Engineering, Inc.
ATTN: Jim Weikert
2424 Rimrock Road, Suite 300
Madison, WI 53713
weikertj@powersystem.org

Notice to the City:

City of Georgetown
ATTN: City Manager
P.O. Box 409
Georgetown, Texas 78627
david.morgan@georgetown.org

With a copy to:

City of Georgetown
ATTN: City Attorney
P.O. Box 409
Georgetown, Texas 78627
skye.masson@georgetown.org

16. **Independent Contractor.** The Agreement shall not be construed as creating an employer/employee relationship, a partnership, or joint venture. The Consultant's services shall be those of an independent contractor. This Agreement does not grant any rights or privileges established for employees of the City. Consultant shall not be within protection or coverage of any insurance that the City, from time to time, may have in force. The City will not be responsible for reporting or paying employment taxes or other similar levies that may be required by the United States Internal Revenue Service or other State or Federal agencies.

17. **Force Majeure.** The City and the Consultant will exert all efforts to perform the tasks set forth herein within the proposed schedules. However, neither the City nor the Consultant shall be held responsible for inability to perform under this Agreement if such inability is a direct result of a force substantially beyond its control, including but not limited to the following: strikes, riots, civil disturbances, fire, insurrection, war, embargoes, failures of carriers, acts of God, or the public enemy.

18. **Nondiscrimination.** The Consultant, with regard to the work performed by it after award and prior to completion of this Agreement, shall not discriminate on the basis of race, color, sex, or national origin in the selection and retention of sub-consultants, including procurements of

materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by any federal, state or local law.

19. **Right to Audit.** The Consultant agrees that the representatives of the City shall have access to, and the rights to audit, examine, or reproduce, any and all Consultant records related to the performance under this Agreement. The Consultant shall retain all such records for a period of four (4) years after final payment on this Agreement or until all audit and litigation matters that the City has brought to the attention of the Consultant are resolved, whichever is longer.
20. **Advertising and Publicity.** Consultant shall not advertise or otherwise publicize, without the City's prior written consent, the fact that the City has entered into the Agreement, except to the extent required by applicable law.
21. **Contractor Certification Regarding Boycotting Israel.** Pursuant to Chapter 2271, Texas Government Code, Contractor certifies that either (1) Appraiser is a sole proprietorship or company with fewer than ten (10) employees, or (2) it does not currently boycott Israel and will not boycott Israel during the term of this Agreement. Contractor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
22. **Contractor Certification Regarding Business with Certain Countries and Organizations.** Pursuant to Subchapter F, Chapter 2252, Texas Government Code, Contractor certifies Contractor is not engaged in business with Iran, Sudan, or a foreign terrorist organization. Contractor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
23. **Contractor Certification Regarding Boycotting Energy Companies.** Pursuant to Chapter 2247, Texas Government Code, Contractor certifies that either (1) Contractor is a sole proprietorship or company with fewer than ten (10) employees or (2) Contractor does not currently boycott energy companies and will not boycott energy companies during the Term of this Agreement. Contractor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
24. **Contractor Certification Regarding Boycotting Firearm And Ammunition Industries.** Pursuant to Chapter 2274, Texas Government Code, Contractor certifies that either (1) Contractor is a sole proprietorship or company with fewer than ten (10) employees or (2) Contractor does not currently boycott firearm and ammunition industries; and will not boycott firearm and ammunition industries during the Term of this Agreement. Contractor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
25. **No Waiver.** No waiver or deferral by either party of any term or condition of this Agreement shall be deemed or construed to be a waiver or deferral of any other term or condition or subsequent waiver or deferral of the same term or condition.
26. **Amendment.** This Agreement may only be amended by written instrument approved and executed by the parties.

27. **Severability.** This Agreement is severable and if any one or more parts of it are found to be invalid, such invalidity shall not affect the remainder of this Agreement if it can be given effect without the invalid parts.
28. **Governing Law and Venue.** This Agreement shall be governed by the laws of the State of Texas. Venue shall be the applicable courts of Williamson County, Texas.
29. **Dispute Resolution.** If either the Consultant or the City has a claim or dispute, the parties shall first attempt to resolve the matter through this dispute resolution process. The disputing party shall notify the other party in writing as soon as practicable after discovering the claim, dispute or breach. The notice shall state the nature of the dispute and list the party's specific reasons for such dispute. Within ten (10) business days of receipt of the notice, both parties shall make a good faith effort, in person or through generally accepted means, to resolve any claim, dispute, breach or other matter in question that may arise out of, or in connection with, this Agreement. If the parties fail to resolve the dispute within sixty (60) days of the date of receipt of the notice of the dispute, then the parties may submit the matter to non-binding mediation upon written consent of authorized representatives of both parties. If the parties cannot resolve the dispute through mediation, then either party shall have the right to exercise any and all remedies available under law regarding the dispute.
30. **Successors and Assigns.** This Agreement shall bind and inure to the benefit of the parties hereto and any subsequent successors and assigns, provided however, that no right or interest in the Agreement shall be assigned and no obligation shall be delegated by the Consultant without the prior written consent of the City. Any attempted assignment or delegation by the Consultant shall be void unless made in conformity with this paragraph.
31. **Third-Party Beneficiaries.** Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the City or the Consultant.
32. **Entire Agreement.** This Agreement, with all exhibits, attachments, and appendices attached, includes the entire agreement of the City and the Consultant and supersedes all prior and contemporaneous agreements between the parties, whether oral or written, relating to the subject of this Agreement.

THE CITY OF GEORGETOWN

CONSULTANT

Signature: _____
Name: _____
Title: _____
Date: _____

Signature: _____
Name: _____
Title: _____
Date: _____

Approved as to form:

Skye Masson, City Attorney

Exhibit A

Scope of Services

Consultant (or “PSE”) shall provide the services in accordance with the phases and details described below.

A.1 SCADA, Phase 1: Needs Assessment, Requirements & Evaluation Criteria

As further described below, Consultant shall prepare a software needs assessment for a future Supervisory Control and Data Acquisition (SCADA) / Advanced Distribution Management System (ADMS) software system capable of monitoring and controlling electric distribution systems, and develop an RFP based on the needs assessment with clearly identified Evaluation & Demo Criteria.

The process of understanding how the City uses its SCADA currently and how you could do so more efficiently is key to a successful project.

Phase 1 – Requirements & Evaluation Criteria

- Conduct a needs assessment with staff from the Electric Utility, Plan for future growth and operational needs.
- Architect the network, IT hardware, redundancy, and cybersecurity requirements for the systems.
- Compare industry standard platforms to the needs developed.
- Assess the City’s current system and processes in comparison to requirements developed and the industry.

Phase 2 – RFP Development, Evaluation & Demo Criteria

- Develop a complete RFP package for the City to issue to vendors integration requirements for GIS, OMS, AMI and Asset Management; programming capabilities; cybersecurity; historical archive and reporting.
- Develop a 10-year total cost of ownership model for the system(s).
- Demonstration agenda with evaluation criteria for vendors.

B. Workshop and Information Gathering

PSE will gather all relevant information from the City in preparation for leading workshops with staff and stakeholders to assess the current situation and develop a forward-looking plan.

B.1.1.1 Initial Information Gathering

PSE will start by gathering existing information from Georgetown including:

- System level electric distributions systems
- GIS model of electric distribution systems
- Information on external systems such as AMI, OMS, Asset Management & GIS
- Information on the extent of your MOSCAD RTU system
- Current utilization of SEL relays and RTCAs and cap bank controllers.
- Distributed Energy Resources (DER) on Georgetown’s system and generation controlled by Georgetown
- Needs for integration to external control systems through ICCP
- Field SCADA equipment for electric systems including intelligent controllers (IEDs) for reclosers, regulators, etc.

B.1.1.2 Lead Workshops for Assessing Future Needs

The data received from the information request will form the basis for the onsite workshop which PSE leads.

PSE will conduct a 2-day onsite workshop. The workshop will gain independent input from system operators, engineering personnel, corporate users, as well as network and security engineers. An example agenda is provided below.

Topic	Time
SCADA Core Team Functionality <ul style="list-style-type: none"> • SCADA Overview (Goals, Cost Drivers, Effort Drivers) • Network Architecture • Security Review • Remote Access, Reporting & Historical Data • Responsibility Matrix (Vendor, Utility, Others) 	Day 1
IT, Network & Cybersecurity Requirements <ul style="list-style-type: none"> • Network Architecture Review • Electric & Water Utility Segmentation • Field Communication Architecture & Security Approach • Remote Access for Managers & Crews • Historical Data & Reporting • Integrations 	Day 1
Operations and Network Center Visits <ul style="list-style-type: none"> • Screen Review & Reporting • Alarm Handling • Operational Tasks 	Day 2
Electric Utility Field Visits <ul style="list-style-type: none"> • Substation Visits & Automation Review • Discuss RTU & IED Options • Substation SCADA HMI 	Day 2
Electric Utility SCADA Team Requirements <ul style="list-style-type: none"> • Restoration & Crew Interactions • DMS Applications (Restoration, Volt/VAR Management) • Interfaces to other systems (ICCP, AMI, OMS, GIS) 	Day 2

C. Initial Solution Development

C.1.1.1 Develop Functional Requirements

PSE’s tailoring of the requirements will be done to address key functionality, including:

- **Fault Location:** What process do operators use for locating distribution line faults when they occur? Should the SCADA allow fault distance to be displayed on a geographic map to assist in locating the fault for crews?
- **Automated Restoration:** Would the City’s reliability be improved through SCADA software supporting restoration? To what degree should it enable operators, and to what degree should it fully automate restoration steps?

- **Load Shedding:** As a Texas utility, the City is likely required to perform load shedding for ERCOT as happened in February 2021. PSE will work with the City to determine load shedding requirements and define a system to meet these requirements.
- **Switching Orders:** What process does the City use for planned and unplanned maintenance? Would the City benefit from a switch order management component in SCADA?
- **Volt/VAR control:** Does this City need to control VARs actively in its substations and on its feeders. Is this managed well with distributed controls? Should it be controlled for peak demand management?
- **Renewable Generation:** How significantly does distributed generation impact feeder operation? Are there subdivisions with high penetration of DER that require special accommodations?
- **Disaster Recovery Procedures:** What processes does Georgetown have in place should a fire or some other events necessitate evacuation of the primary control center? How does this impact field communications and interfaces to other utilities?
- **Operator training and simulation**
- **Distribution automation and SCADA controlled devices**
- **Advanced distribution management system functionality (conservation through voltage reduction; peak demand management; support for micro grids and electric vehicles)**

C.1.1.2 Industry Comparison & Existing State Gap Analysis

PSE will present to the City an industry comparison showing the ability of their current system and other common industry systems to meet the City's needs.

C.1.1.3 Define Integration Methodology

The functionality of SCADA can be expanded significantly through effective integrations. Common integrations that we set requirements for include,

- **AMI:** PSE will evaluate the benefit of AMI integrations by working with the City to determine whether volt/VAR and CVR programs would be valuable. When AMI integration is determined to be valuable, the most prevalent integration method is using MultiSpeak. The interface is well defined and supported by all leading AMI and SCADA vendors.
- **OMS:** Integration to the outage management system is advantageous for several reasons and would be recommended by PSE. Certainly, SCADA can speed OMS predictions when devices lock out. Often more beneficial is providing fault current values to the OMS to give crews better location of the damaged line section. PSE will work with the City to define these needs. Again, MultiSpeak is the most common integration method as it is well supported by leading OMS and SCADA vendors.
- **GIS:** GIS integration with SCADA can be advantageous in specific circumstances. Typically, operations centers use the map in OMS as the primary map for dispatching and managing the system. A GIS based map can be advantageous for SCADA if high numbers

of mid-line feeder devices are controlled for restoration by operators or by the SCADA system.

- **DRMS / Load Management:** Some utilities wish to control system peaks by utilizing demand-based voltage reduction in their SCADA system. PSE will work with the City to determine the applicability of this and define an integration if needed.
- **ICCP:** Finally, some utilities are required to or have a desire to have a connection to their power supplier or to ERCOT. PSE will work with the City to determine whether this type of connection would be advantageous in sharing data.

PSE and Georgetown will map out each of the integrations today and changes desired going forward.

C.1.1.4 Assess Work Processes, System Administration & Maintenance

In addition to specifying the software, it is important to evaluate the City's process to understand challenges that must be accounted for as well as to look for opportunities to improve existing processes through the use of improved SCADA software.

1.1.1.1.1 Dispatching & Crew Work Processes

SCADA impacts both the information provided to staff from the field as well as control that can be used to improve efficiency. Control can be done by allowing the operations center to perform functionality to assist crews. Control can also be done automatically by the SCADA software.

PSE will examine multiple operational processes to understand how an improved SCADA system can improve efficiency. This will include:

- Reporting for the PUCT, ERCOT and other regulatory bodies
- Notifications of issues during and after normal working hours
- Creation and tracking of switching orders
- Feeder sectionalizing and restoration
- Voltage & VAR management

1.1.1.1.2 System Administration

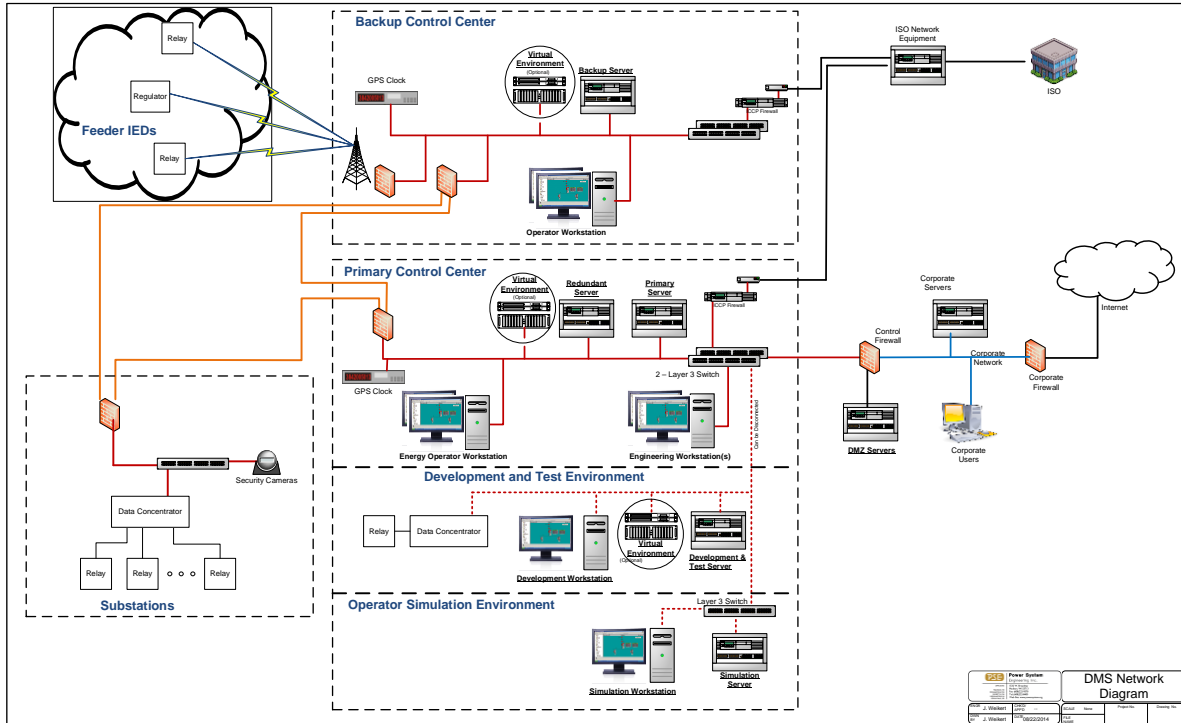
PSE specifically will talk about the processes used by the City system administrators for SCADA system maintenance. This will include the following:

- Database and One-line updates
- Software patches and upgrades
- Network model changes and state estimator verification
- Field Device changes and testing
- Operating system updates and security patches

C.1.1.5 Define Server Architecture, Network and Cybersecurity

PSE engineers will lead the design with the City’s IT and network engineers to architect the servers and network to provide desired disaster recovery, security, and maintenance.

Figure 1: Representative Network Diagram



PSE will discuss the following with the City IT and Utility’s OT network engineers:

- **Server Virtualization & SAN Network Storage:** Frequently we are seeing virtual servers and SAN storage used to ease IT maintenance for activities such as server replacement and hardware upgrades. These systems typically are built with redundant server hardware to DR as discussed below.
- **Disaster Recovery and Fail-over:** Systems typically still rely on hardware redundancy both at the primary control center and back control centers even in a VM environment. In addition, the systems utilize SCADA vendor fail-over mechanisms to control which application is active amongst the primary and back-up systems.
- **NERC ESP Practices:** Review of ESP design practices within the primary and backup centers as well as to engineering, historical archival as well as interfaces to ERCOT, AMI, OMS, etc.
- **Remote Access for Support:** Review the design for vendor access for support.
- **Remote Visibility:** PSE will discuss with the City the value of having web based read-only interfaces for crews and others outside of the control center(s) to view SCADA data.

- **Historical Data Storage:** PSE will discuss with the City the best approach for storing and analyzing historic SCADA data. This includes comparing scan rate historians for recreating events as well as slower 1-to-5-minute interval storage to support engineering analysis with SCADA data. We will evaluate the tools to access and analyze the data as well.
- **System Maintenance by Georgetown:** PSE will review with Georgetown how system updates and security updates are designed and tested. We will cover use of a development system, QA test system, as well as OS patch management.
- **Operator Training:** PSE will cover how operators perform training reviewing previous fault restoration scenarios as well as possible contingencies.

D. RFP Evaluation Criteria

PSE will incorporate the top 25 most important criteria prioritized into the process which we have refined in the evaluation of many similar systems.

PSE will assist in the selection of the best vendor . This will be based on functionality, integration approach, services provided, up-front and on-going cost, IT & hardware requirements, usability of the software, reference checks, and on-going support by the City and the vendor.

The overall evaluation is a composite of component factors that are illustrated in the figures below. PSE will tailor our evaluation tool to prioritize the factors that are most critical to the City.

D.1 SCADA, Phase 2: RFP Generation

E. Generate RFP Package

Once the system design is complete, PSE will assist in creating the City RFP Templates together with the SCADA RFP package using our RFP template sections as described below.

E.1.1.1 Technical Requirements

PSE uses requires the vendor to indicate compliance or non-compliance with each of the requirements listed.

E.1.1.2 Responsibility Matrix

One of the most critical items in. PSE will work to ensure the evaluating of bids from vendors and signing of contracts that lead to successful system installation and deployment, while agreeing on the responsibilities of the supplier and the purchaser

E.1.1.3 Pricing Normalization

PSE's will require bidders to insert their prices according to a standard format.

E.1.1.4 Factory and System Acceptance Testing Requirements

Critical to the selection of the vendor is a clear and common understanding of the activities to be followed during the Factory Acceptance Test (FAT) and System Acceptance Test (SAT). Providing the FAT and SAT requirements in the RFP allows us to ensure that requirements and use cases are

incorporated in the testing document and are therefore tested by the vendor to meet our expectations.

E.1.1.5 Security Requirements

Designing the SCADA to meet security objectives, defining security-related requirements within the RFP, and in general, following a procurement process that vets each vendor for strong internal security practices is essential to deploying a secure system.

E.1.1.6 Network Diagrams

PSE must create a network diagram with critical information, including:

- **Servers:** The infrastructure needs to account for the number and type of servers, including primary and redundant servers at the main control center, servers at a backup control center, DMZ servers for historical storage, and providing data for corporate use.
- **Virtualization:** The infrastructure can be built to support virtualized servers. The virtual environment can be contained completely within the control network so that no sharing exists with corporate servers or secure segmentation can be set up to share server resources.
- **Operator Workstations:** Details need to be defined for the number of workstations at each location in conjunction with the displays that should be provided for each operator.
- **RTU & IED Communication:** The infrastructure needs to accommodate communication to IEDs and RTUs in substations as well as those distributed along distribution feeders.

The diagram previously presented is a representative sample of the type of network diagram that would be appropriate for a system similar to what Georgetown is designing.

F. Cost of Operation Model

The 10 year plan will include a 10-year cost of operation model, as part of the technology planning process.

In considering total cost of operation, we include costs for each of the following categories.

- Initial Vendor Costs
 - Software Licensing
 - Servers and Networking Hardware
 - Vendor Engineering Services
 - Training Costs
- Utility Support Costs
 - Initial System Configuration and Testing
 - Training for Operators and Administrators
 - On-Going System Administration
 - Server Patches and Software Upgrades
- Annual Vendor Support Costs
- Vendor Upgrade Engineering Services

G. Develop Vendor Demonstration Requirements

PSE will create for the City a set of expectations for vendor demonstrations. PSE will create a common agenda that instructs each vendor to demonstrate similar use cases to allow an apples-to-apples comparison.

H. Proposal Evaluation & Vendor Demonstrations (Optional)

As an option, the City can choose to have PSE perform the following tasks to evaluate bidders proposals and assist the City’s staff in getting familiar with the software through demonstrations.

H.1 Evaluation

The first step in PSE’s typical process for evaluating proposals is the collection of electronic versions of each vendor’s requirements and pricing documents provided in the RFP into our evaluation spreadsheet. Our process is designed to allow side by side comparison of responses to technical requirements and summarization of pricing. The spreadsheet includes a means of high-level scoring for each category of requirements.

Following this step, we would provide the loaded evaluation spreadsheet to the City to allow the City’s staff to individually perform an evaluation. In parallel, PSE would similarly evaluate the proposals.

Once all groups have completed the evaluation, we host an on-line meeting to walk through the evaluation and facilitate discussion.

The goal of this process is to allow the City to identify which vendors should not be considered further and which should be short-listed for an on-site demonstration.

A sample of PSE’s evaluation summary table is shown below.

Table 1: Sample Evaluation Summary Table

Evaluation Scores: 1 - Very Poor, 2 - Poor, 3 - Acceptable, 4 - Strong, 5 - Very Strong						
Considerations		Vendor #1		Vendor #2		
#	Category	Weight	Score	Detail	Score	Detail
1	Pricing (Base System)	xx%	x.x	\$xxx,xxx	x.x	\$xxx,xxx
	Pricing (Preferred Options)			\$xx,xxx		\$xx,xxx
	Pricing (5 Year Total Cost)			\$xxx,xxx		\$xxx,xxx
	Pricing Summary			Comments on proportion of services		Comments on proportion of services
2	Technical Requirements & Critical Question Responses	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
3	Services Proposed	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
4	Support & Software Upgrade	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
5	Schedule	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
6	References	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
7	Terms & Conditions	xx%	x.x	Summary of vendor's response and key take-aways	x.x	Summary of vendor's response and key take-aways
	Overall	xx%	x.x		x.x	

This is supported by a requirements summary and pricing summary as shown below.

Table 2: Sample Requirements Evaluation Summary

Evaluation Scores: 0 - Not Supported, 1 - Very Poor, 2 - Poor, 3 - Acceptable, 4 - Very Strong, 5 - Exceptional in Industry						
Functionality	Importance	Vendor #1		Vendor #2		
		Score	Detail	Score	Detail	
Technical Questions		32		31		
1	Software General & Licensing	H	4	Summary of response	4	Summary of response
2	Database and Administrative	H	4	Summary of response	4	Summary of response
3	User Interface	H	4	Summary of response	4	Summary of response
4	AORs and User Permissions	H	4	Summary of response	4	Summary of response
5	Operations and Tagging	H	4	Summary of response	4	Summary of response
6	Event and Alarm Processing	H	4	Summary of response	4	Summary of response
7	Historical Storage and Reporting	H	4	Summary of response	3	Summary of response
8	Field Devices and Protocols	H	4	Summary of response	4	Summary of response
Advanced Applications (Optional)			14.5		14	
10	Switch Order Management (Optional)	M	4	Summary of response	4	Summary of response
11	Geographic Display (Optional)	H	3.5	Summary of response	3	Summary of response
12	Automated Restoration (Optional)	H	3	Summary of response	3	Summary of response
13	Volt/VAR & CVR (Optional)	M	4	Summary of response	4	Summary of response

H.2 Vendor Meetings

Following the evaluation, PSE recommends hosting several vendor meetings onsite at the City’s offices to interview preferred vendors and examine their proposals and systems in greater detail. In these instances, we provide agendas for each vendor to follow to structure the demonstrations in a manner which allows for better side-by-side comparison.

The table below provides an outline of our standard template. A key component of this is the incorporation of time allowed for dispatch and system administrators to have hands-on time with the software to better understand the usability of the system.

Table 3: Standard Vendor Presentation Agenda Template

Topic	Time
Company Overview – Brief introduction of the vendor. Include stability and longevity of company with list of present customers.	
Operator Interface – Demonstrate many of the common actions operators will perform on a daily basis. (This may be done using a pre-configured system on the presenter’s computer.)	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	
Configuration and Maintenance – Demonstrate the process administrators will follow to perform common actions.	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	

Topic	Time
Archival, trends, and reports – Demonstrate how administrators would create reports and trends and how users inside and outside the control room would access reports and trends.	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	
Optional Advanced Applications – Demonstrate the following:	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	
Security – Discuss and Demonstrate security procedures	
Protocols and Field Device connections	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	
Network Architecture Overview – Discuss proposed system architecture, virtualization, security, vendor recommendations.	
Project Overview – Discuss overall project approach	
<ul style="list-style-type: none"> • Aspect #1 • Aspect #2 ... • 	
Open Discussion, Q&A, Wrap Up	

This process allows for an interactive dialog and software demonstration that allows each of the team members to get comfortable with intangible aspects of the system and the company providing it.

Exhibit B
Supplemental Provisions

Exhibit C

Payment Terms

Compensation is based on *actual* hours of work/time devoted to providing the described services. The Consultant will be paid at the hourly rates listed in the chart below. The estimated hours in the chart are an estimation only. The City will only pay for actual hours worked. The City will reimburse the Consultant for *actual*, non-salary expenses at the rates set forth below. Unless amended by a duly authorized written change order, the total payment for all invoices on this job, including both salary and non-salary expenses, shall not exceed the amount set forth in Section 4 of this Agreement (\$ 68,105).

The Consultant must submit *monthly* invoices to the City, accompanied by an explanation of charges, professional fees, services, and expenses. The City will pay such invoices according to its normal payment procedures.

Expenses shall be reimbursed as follows:

PSE will perform the Communication scope for \$50,800, plus approximately \$2,500 travel less 15% discount.

Categories	Travel Cost	Hours	Labor Cost
SCADA Approach A: Stand Alone			
Electric SCADA (Stand-Alone)			
Phase 1: Needs Assessment	\$ 1,500	120	\$ 23,500
Phase 2: RFP Generation		83	\$ 15,600
SCADA Report & Presentation	\$ 1,000	66	\$ 11,700
Communication Plan Total	\$ 2,500	269	\$ 50,800
Discount for Joint Communications & SCADA Projects			(\$ 7,995)
Total (Labor and Travel)			\$ 45,305

Travel costs must be approved in advance and supported by receipts.

As an option, PSE is including costs for assisting Georgetown with evaluation of vendor proposals and participation in vendor demonstrations.

Categories	Travel Cost	Hours	Labor Cost
Proposal Evaluation & Vendor Demonstration			
Proposal Evaluation	\$ 0	26	\$ 5,300
Vendor Demonstrations (3 vendors – 2 days each)	\$ 2,500	72	\$ 15,000
Communication Plan Total	\$ 2,500	98	\$ 20,300
Total (Labor and Travel)			\$ 22,800

Exhibit D

Insurance Requirements

I. The Consultant agrees to maintain the types and amounts of insurance required in this Agreement throughout the term of the Agreement. The following insurance policies shall be required:

- A. Commercial General Liability
- B. Business Automobile Liability
- C. Workers' Compensation
- D. Professional Liability

II. For each of these policies, the Consultant's insurance coverage shall be primary with respect to the City, its officials, agents, employees and volunteers. Any insurance or self-insurance carried or obtained by the City, its officials, agents, employees or volunteers, shall be considered in excess of the Consultant's insurance and shall not contribute to it. No term or provision of the indemnification provided by the Consultant to the City pursuant to this Agreement shall be construed or interpreted as limiting or otherwise affecting the terms of the insurance coverage. All Certificates of Insurance and endorsements shall be furnished to the City's Representative at the time of execution of this Agreement, attached hereto as Exhibit D, and approved by the City *before* work commences.

III. General Requirements Applicable to All Policies.

- A. Only licensed insurance carriers authorized to do business in the State of Texas shall be accepted.
- B. Deductibles shall be listed on the certificate of insurance and are acceptable only on an "occurrence" basis.
- C. "Claims made" policies are not accepted, except for Professional Liability insurance.
- D. Coverage shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) calendar days prior written notice has been given to the City of Georgetown.
- E. The Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent. Each certificate shall contain the following provisions and warranties:
 - 1. The insurance company is licensed and authorized to do business in the State of Texas
 - 2. The insurance policy is underwritten on forms provided by the Texas State Board of Insurance or ISO
 - 3. All endorsements and coverages are included according to the requirements of this Agreement
 - 4. The form of notice of cancellation, termination, or change in coverage provisions is specified in this attachment

- F. The City of Georgetown, its officials, agents, employees, and volunteers are to be listed as Additional Insureds on the Commercial General Liability and Business Automobile Liability Policies. The coverages shall contain no special limitations on the scope of protection afforded the City, its officials, employees, and volunteers.

V. Commercial General Liability requirements:

- A. Coverage shall be written by a carrier rated “A: VIII” or better in accordance with the current A. M. Best Key Rating Guide.
- B. Minimum Combined Single Limit of \$1,000,000 per occurrence per project for bodily injury and property damage with a \$2,000,000 annual aggregate limit.
- C. Coverage shall be at least as broad as Insurance Service's Office Number CG 00 01.
- D. No coverage shall be excluded from the standard policy without notification of individual exclusions being attached for review and acceptance.
- E. The coverage shall not exclude: premises/operations; independent contracts; products/completed operations; contractual liability (insuring the indemnity provided herein); and where exposures exist, Explosion, Collapse and Underground coverage.
- F. The City shall be listed as Additional Insured, and the policy shall be endorsed to waive rights of subrogation, to be primary and non-contributory with regard to any self-insurance or insurance policy held by the City.

VI. Business Automobile Liability requirements:

- A. Coverage shall be written by a carrier rated “A:VIII” or better in accordance with the current Best Key Rating Guide.
- B. Minimum Combined Single Limit of \$1,000,000 per occurrence for bodily injury and property damage.
- C. The Business Auto Policy must show Symbol 1 in the Covered Autos portion of the liability section in Item 2 of the declarations page.
- D. The coverage shall include owned, leased or rented autos, non-owned autos, any autos and hired autos.

VII. Workers’ Compensation Insurance requirements:

- A. Pursuant to the requirements set forth in Title 28, Section 110.110 of the Texas Administrative Code, *all* employees of the Consultant, the Consultant, *all* employees of any and all subconsultants, and all other persons providing services on the Project must be covered by a workers compensation insurance policy, either directly through their employer’s policy (the Consultant’s, or subconsultant’s policy) or through an executed coverage agreement on an approved DWC form. Accordingly, if a subconsultant does not have his or her own policy and a coverage agreement is used, Consultants and

subconsultants *must* use that portion of the form whereby the hiring Consultant agrees to provide coverage to the employees of the subconsultant. The portion of the form that would otherwise allow them not to provide coverage for the employees of an independent Consultant may not be used.

- B. The workers compensation insurance shall include the following terms:
1. Employer's Liability limits of \$1,000,000 for each accident is required.
 2. "Texas Waiver of Our Right to Recover From Others Endorsement, WC 42 03 04" shall be included in this policy.
 3. Texas must appear in Item 3A of the Worker's Compensation coverage or Item 3C must contain the following: All States except those listed in Item 3A and the States of NV, ND, OH, WA, WV, and WY.

VIII. Professional Liability requirements:

- A. Coverage shall be written by a carrier rated "A:VIII" or better in accordance with the current A. M. Best Key Rating Guide.
- B. Minimum of \$1,000,000 per occurrence and \$2,000,000 aggregate, with a maximum deductible of \$100,000.00. Financial statements shall be furnished to the City upon request.
- C. For "claims made" policies, the availability of a 24-month extended reporting period is necessary. The retroactive date shall be shown on the certificate of liability insurance.

Exhibit E
Certificate of Insurance