



## Request for Proposals

### Electric Department SCADA System Upgrades

#### Questions and Answers

1. Can you provide some guidelines as to what you would like to see specifically at the demonstration/presentation?

*On page 26 of the "RFP for Electric Department SCADA system upgrades," there is a section titled "Demonstration Guidelines and Scripts" which explains the items that GUC would like to see. GUC has standardized on the DNP protocol and the NovaTech Orion RTU will be programmed with the points that are available to in the document, "Table 1 – Eastern Bypass Point List."*

*The demonstration guidelines list five items to be covered. GUC will provide the vendor with one (1) hour to setup, two (2) hours for the demonstration, a fifteen (15) minute break and two (2) hours for vendor presentation on information of their choice.*

2. Will the PI historical database be required at the demonstration?

*The demonstration guidelines indicate that the PI historical database will be provided by the vendor. **The PI historical database nor server will not be required by the vendor at the demonstration/presentation meeting.***

3. Do you require web interface for the SCADA demonstration?

*Item 4e in the Demonstration Guidelines (page 27) states "create a web version of this one line diagram." GUC would like to see the ease of use for the vendor's software in creating and/or converting HMI displays to web displays with active SCADA points (no control) for web viewing.*

4. Do you allow alternate pricing for design options?

*Yes, GUC welcomes your innovation and ideas for design options and alternate pricing. GUC does request that you price the RFP as proposed and alternate pricing and options are welcomed. After GUC selects the successful proposer, GUC we negotiate the options and pricing before executing the contract.*

5. What are the specific requirements for the PI historian?

*Response to be updated 3/16 PM. The RFP **no longer requires a PI historian**. A historian server is required to create a DMZ between the corporate network and the SCADA network. The Data Historian shall serve SCADA information to the corporate business unit. The Data Historian shall replicate the SCADA real-time database along with the historical trending and archiving data. Document 13310, Section Q - Data Historian has been modified to reflect these changes. Refer to Addendum I 20120320.*

6. Does GUC require 64-bit hardware and 64-bit software?

*Document 13310, Section E.1a Hardware states "Processor: Intel® Xeon® E5640 2.66Ghz, 12M Cache, Turbo, HT, 1066MHz (minimum of 2 provided)." This is a 64-bit instruction set processor therefore the hardware requirement is YES. GUC would prefer the software/applications to utilize 64-bit processing.*

7. Do we need to include certificates of insurance in the proposal or can they be provided after the project is awarded?

*Greenville Utilities prefers that certificates of insurance be provided with the Request for Proposal.*

8. Our understanding is no performance bond is required. Please confirm.

*Greenville Utilities' will require a performance bond at the time of developing and entering into contract with the vendor.*

9. Regarding the system demonstration-page 26: We reviewed the information in file "Table 1 - Eastern Bypass Point List.csv". However, it is not clear to us where the protocol addressing for the point (ex DNP: point object, variation and index) is indicated. Please advise.

*Ignore addressing values with -1*

*Object Type: STATUS - 1-Binary Input; ANALOG - 30-Analog Input*

*Class Code: the class code is set by the RTU, return all points as programmed*

*Format Code: STATUS - 0-normal single bit, 1-reverse single bit;*

*ANALOG – 0-scale, clamp to zero if value is within zero-clamp deadband and store in database*

*Control (object, variation) – 12,1-control relay output block*

*Control Code: 0-Null, 1-Pulse on, 2-Pulse off, 3-Latch on, 4-Latch off, 21-Pulse on(trip), 41-Pulse on(close)*

*Control Mode\*: 000-select before operate, 100-direct operate, 200-direct operate, no acknowledgment*

*\*All controls are 000-select before operate*

10. Regarding Terminal Services-Page 76, item L: The spec calls for 3 clients when the service is running on the Servers and 25 clients if the service is running on a separate machine. Does it mean we need to provide both forms or only one (running on the SCADA Server vs. running on a separate Server)? Please clarify.

*Basically, 25 separate users need to be available for terminal services. This will equate to 15 concurrent users for viewing and controlling the SCADA/HMI. Further discussion on various options can be discussed during the presentation session. We will need 3 concurrent programming services.*

11. Regarding the demonstration: The document RFP QA drafted on 3/21 says: *On page 26 of the "RFP for Electric Department SCADA system upgrades," there is a section titled "Demonstration Guidelines and Scripts" which explains the items that GUC would like to see. GUC has standardized on the DNP protocol and the NovaTech Orion RTU will be programmed with the points that are*

available to in the document, "Table 1 – Eastern Bypass Point List." This above description does not mention the RTC-1032 communication. Does it mean the RTC-1032 is implemented in NovaTech RTU and we need to interface with the Entek device through the NovaTech DNP RTU?

*Greenville Utilities will have four (4) different protocols moving forward:*

**ICCP** for Master to Master communication with supplier

**Modbus** for Peaking Generator Sites using a GE FANUC PLC

**RTC-1032 (REMs 100,101,102)** for Load Control Devices using an Entek conversion device

**DNP** for all other communications to Substations using a Nova Tech ORION, to Distribution Reclosers using SEL-651R relays, to Distribution Regulators using Beckwith M2001 controls, to Distribution Metering using NovaTech Bitronics Multicomm Meters

*Currently all three (3) protocols will be implemented by the SCADA/HMI. The vendor does have the option to recommend other options such as using an RTU to convert protocols. **For the demonstration**, the vendor is required to communicate DNP to the NovaTech RTU and also communicate RTC-1032 directly to the ENTEK device.*

12. Some of the sites in the spec (ex: 'SCADA Site cover sheet 11 CNTL.pdf') are specified with QUICS RTU. QUICS protocol is not specified as one of the required protocols for this project. Does it mean they are or will be converted to DNP RTUs for the SCADA implementation. Please advise.

*YES they will be.*

13. Regarding the system demonstration-page 27: The switch symbols are defined as: 'Switches – Open/Close (rotating close symbol)'. Could you please expand on the rotating scenario. For example, a possible scenario is: once the switch closes, the symbol rotates 90 degree clockwise and stops at the position shown in the document.

*The switch close symbol should visually appear to rotate continuously while in this state. Keep in mind a 90 degree shift of this symbol would be identical and would not appear to rotate.*

14. The RFP calls for a response structure as follows-page 19:

1. Proposal Transmittal Letter (2 pages maximum)
2. Project Approach (35 pages maximum)
3. Project Manager/Key Personnel (15 pages maximum)
4. Overall Qualification of Firm/Team (10 pages maximum)
5. Previous Experience with GUC (3 pages maximum)
6. Compensation Requirements (15 pages maximum)

7. Demonstration/Presentation Comments (10 pages maximum)

8. M/WBE Involvement (2 pages maximum)

Could you please advise if a Table of Compliance is required? If so, please advise the proper chapter for insertion of the compliance table?

*Section 2, Project Approach, shall include at a minimum a description of design, construction, implementation and the operation of the SCADA/HMI system. Section 6, Compensation Requirements, shall provide an itemized listing of all equipment, software, modules, and services priced separately for items 1 through 7.*

15. What would be the maximum expected number of SCADA real-time points

*Total real-time points are currently 7,500 and expected to increase to 10,000 in the next two years.*

16. What would be the maximum expected number of points stored in the historian?

*About one-third the real-time points or 3,333 points.*

17. Can GUC clarify the exact deadline for receipt of proposals? On page 19 of the proposal the deadline is listed as 2:00 pm Eastern Daylight Time, March 30, 2012, while the RFP cover states the due date as March 30, 2012, 4:00 pm (EDST).

*The RFP due date/time is March 30, 2012 at 4:00 pm (EDST).*

18. Are vendors allowed flexibility with the page limits for proposal sections; i.e. if the vendor does not require all 10 pages allotted for "Overall Qualification of Firm/Team" can the additional pages be applied to the "Project Approach" section as long as the total number of pages falls below the 92 page total maximum?

*Yes, the vendor has up to 92 pages total for the RFP written document.*

19. Please confirm that GUC requires only DNP/IP protocol to be employed in its replacement system. Based on RFP Q&A 1, it appears the standard will be DNP and NovaTech Orion. If not, please provide a breakdown of the quantity of communication channels by protocol.

Please confirm that GUC requires system sizing for 12,500 SCADA points and 35 substations.

*Total points are 12,500 SCADA points. Total real-time points are currently 7,500 and expected to increase to 10,000 in the next two years.*

**ICCP** – One (1) communication channel, one (1) Master.

**RTC-1032** – One (1) communication channel and three (3) RTUs.

**Modbus** – Three (3) communication channels and thirteen (13) peaking generator PLCs.

**DNP/IP** - Nine (9) communication channels

- 90 capacitor controllers (Cooper/Cannon controllers)
- 25 substations (NovaTech Orion RTU)
- 18 distribution reclosers (SEL 651R IEDs)
- 6 distribution regulators (Beckwith M2001 controllers)
- 6 distribution metering (Bitronics Multicomm meters)

20. Based on the previous clarification that GUC has chosen to standardize on the DNP protocol, is it still required to communicate to the Entek device via RTC – 1032 protocol during the demonstration?

YES

21. Please confirm that only IP FEP/RTU channels will be coming into the SCADA master station (i.e. serial equipment such as modems, terminal servers, etc. are not required).

*Serial equipment will be required. The RTC-1032 is currently our only serial protocol.*

22. Based on section 3.03.B.2 of the RFP, please confirm that a tape drive solution (or other convention that allows automated system backup and offline archival of historical data) is required?

*Greenville Utilities is flexible on the medium or mechanism for backups as long as they are available.*

23. Is a high speed historian required (scan rate recording) for the project, or is an RDMBS historian adequate? Please specify the quantity of points and frequency of data archiving.

*The RDMS historian is adequate about 33% of real-time points will be archived or 3333 points.*