Questions Received

Below is a list of questions received and answers that been included in regards to the Causey Electric Power Plant PLC and HMI Upgrade Project:

1. What connections exist between this and other systems (i.e. other controllers, interlocks, data historians, alarm management system(s), etc.) and who is responsible for modifications that may be required by the migration of this system
   There is an entry alarm (door switch) that is triggered that goes through the PLC to notify us of an entry or exit. The only other connections out of the PLC are to the HMI and to a dial up modem that talks over modbus to our main control center. We wouldn't anticipate any modifications to any other systems.

2. Is there only one SCADA server/HMI Node involved? Are Siemens PLC values accessed or acted on by other PLCs?
   There is only one HMI that is involved with this project, there is not a SCADA server/node at this site. There are no other PLC's that will access or be acted on by the Siemens PLC.

3. What Siemen's PLC model is deployed?
   The PLC is a Siemens 505.

4. What equipment and what process is being controlled by this PLC/SCADA node specifically?
   All hydro electric power plant operations are being controlled by the PLC. Specifically, two hydro electric generators and all ancillary equipment.

5. Can you share the process description behind what this PLC/SCADA node is controlling?
   The process is the generation of electrical power through two hydro electric generators.

6. Do you have wiring standards for the site you can share? (i.e., do you use marshaling panels, etc.)
   We don't have specific wiring standards, we would just expect things to look nice and clean upon project completion as well as have everything working.

7. What is area classification of the area where systems are deployed?
   There are no hazardous or explosive materials at this site, during operation of the power plant it can be noisy, but the majority of this work will need to be completed when the units are down (October 15th to February 28th) with the exception of startup to verify all functionality.

8. What constraints are there with respect to accessing systems? What could impact doing work on site?

The building is secured by a locked gate and locked doors. Site work will need to be coordinated through me, but the site will available anytime after the project award date.

9. Are union laborers required?
   No, we do not require union laborers.

10. Earliest date to start project? When does window open on having unfettered access to systems to execute work?
    Installation of the PLC and HMI could not begin until we shut down the plant for the winter season (October 15th). Programming services could be started on the project award date, which we anticipate to be September 27th, 2019.

11. Will you please provide measurements for area where existing PLC sits?
    The area for the PLC is 21" by 14". We have an available area off to the side (5-6') where we could mount a new cabinet if we needed to.

12. What are the serial connections leading to? To the HMI and to 2 other devices?
    One serial connection is leading to the HMI, one is leading to the dial up modem that we use for communications, and we are unable to determine where the third one went and are not sure what it's communicating to.

13. Do you have a copy of TISoft for conand wire with instrumentation in the field? tractor to use (maintenance laptop?)
    We do have a copy of TISoft for us to reload the program onto the existing PLC. It will however be up to the contractor to read the existing plc program and convert that over to an Allen Bradley Control Logix program. Our version cannot be used for this project.

14. What SME resource(s) will be available to help with testing
    Please clarify what you mean by SME resources.

15. The code printout does not give an obvious clue as to what channel/wire is connected to what instrument in the field - how do maintenance people currently trace channels and wires too instruments?
    We have not had to do a lot of maintenance on this site, if we had to trace a wire our electricians would do that for us. It will be up to the contractor to utilize the plc program as well as tools onsite to ensure everything is connected properly.

16. Do you have any detail on the HMI and its program? What calculations are happening within the HMI? Do you have configuration software for the HMI? on a maintenance laptop that we can have access to?
    The HMI is an old DOS based program written with the HydroCom software. We don't believe any calculations are being performed in the HMI, everything should be coming from the PLC. We could give you a copy of the HMI software, however we don't have anyway to read / edit the software that we know of.

17.What is being communicated over the modbus to the main control center? Is the main control center simply monitoring but not controlling? Are the registers and definitions documented somewhere?

The main control center has controlling functionality as well (start / stop, speed up / slow down, etc). Attached is a list of tags from our iFix database hat are being sent back to us from the power plant. (Other contractors, if you would like this list, please contact gpierce@weberbasin.com).