

Logan City

15kV Switchgear for Substation 6

Questions and Answers

This information is hereby attached to and made part of the Bid Request Documents

September 14, 2017

Question 1: Item 2.5.M - Do you want the batteries in the Sheltered Aisle as specified? These are not shown on the sketch. What additional (SCADA) loads do we have? I need this to size the batteries correctly.

Batteries will be located in an adjacent building. We have these already. Make sure there is a connection point in the building for battery backup circuit. Please ignore references to batteries in the spec.

Question 2: Item 2.6.C - What part exactly is the “spout”? is it the stationary part of the breaker cell, or the moving part of the breaker stabs? Note that Porcelain is more expensive than the newer and commonly used polymer compounds (Epoxy, GPO3, etc.). Usually if Porcelain is specified, the bus windows (where the bus passed between sections of Switchgear) are also called out to be porcelain.

Spouts refer to the stationary part of the breaker cell where the breaker stabs enter and make contact with the main bus and load bussing.

Polymer is fine.

Question 3: Item 2.7.A - The BIL rating for C37.20.2 Switchgear is 95kV BIL. The 110kV BIL typical of Pad Mounted Switchgear (C57.12.29). Is this Switchgear to be rated at 95kV BIL or 110kV BIL. Note that the next level in BIL is 125kV, and that is 27kV class Switchgear, with price impact of about 30 to 40% over 15kV Switchgear.

We normally ask that the bus be insulated to 110kV BIL. All the breakers and other equipment is typically 95kV BIL.

Question 4: Part 4, City of Logan Insurance - In the main body of the specifications and the IEEE codes cited, there is no mention of Arc Resistant Switchgear (C37.20.7). Is the Switchgear in the Sheltered Aisle assembly to be Arc Resistant (C37.20.7) or standard rated Switchgear? NOTE – the price impact of Arc Resistant Switchgear is typically 40 to 60%, with lead times extending into 26 to 32 weeks. Foot prints also increase, as does the size of the enclosure.

Please disregard the label of Arc-Resistant Switchgear on the Insurance and Bond Requirements. Project is for standard rated switchgear.

Question 5: When is this Sheltered Aisle Switchgear to be on-site?

Vendor is to indicate timing that they can accommodate. Time will be a consideration of the bid proposals.

Question 6: What is the time frame from time of PO issue to delivery?

Vendor is to indicate timing that they can accommodate. Time will be a consideration of the bid proposals.

Question 7: Drawing of Sheltered Aisle, page C1-001: There is a significant amount of open space between the end of the Switchgear line-up and the wall of the Sheltered Aisle. Is this space needed or can it be adjusted to be smaller? What is going to occupy that area?

Storage, folding table, miscellaneous substation parts.

For a span of over 50", we will need to put in a vertical post to meet the seismic requirements. Will that be a problem?

Please depict the location of this vertical post on a preliminary drawing. Preference will be given to vendors who most closely meet the physical constraints of the site.

September 15, 2017

Clarification to Question 4: Please also disregard "Arc-Resistant" on Page 34 in the Contract Project description.

September 18, 2017

Question 8: Concrete—In the RFQ references are made to the size of the pad and our option to change the sizes of the Switchgear housing. Can you explain the concrete situation. It looks to me that you intend to bottom feed the outgoing circuits from the completed substation. If this is the case we need to deliver a substation that matches your expected outgoing cable arrangement. Is there a below grade cable room/vault, a trough in the concrete, or some other existing condition.

We are replacing an existing switchgear building. The pad exists, as well as the circuits that come out of it. They are bottom fed. So it is critical that those parts of the building follow the given dimensions.

Question 9: Drawing C1-101 (SWGR Layout): Incoming 2000A Power Bushings: **Do the bushings have to be exactly as shown on the drawing (spaced out in a line), or can we optimize the bushing configuration into a “triangle” design as we have done in the past?**

This is replacing an existing building. It needs to be in line as shown to match existing busswork coming from the transformer.

Question 10: Drawing C1-001 and CE-002 (single line): The CPT will be bus connected as indicated on the SWGR layout drawing (in unit 5). However, the CPT is shown as line connected on the single line. *Due to the physical size of the CPT, it will need to be bus connected UNLESS an additional section of Switchgear is added for the CPT.* Is a bus connected CPT acceptable?

Bus connected CPT is acceptable.

Question 11: Description of the Substation: 2.4.B: Single Front Aisle Vs Power Distribution Center. The specifications call out for a “single front aisle” which can be interpreted as what is commonly called a Sheltered Aisle enclosure. From the description, it appears that what is desired is a Power Distribution Center.

Power Distribution Center or single piece E-House is desired.

September 19, 2017

Question 12: We're unclear on the bid bond/performance/payment bonds required. Could you please clarify if you will need all three types of bonds for the bid and if so, what amount each should be?

The selected contractor will be required to provide Payment and Performance Bonds in the amount of the contract. Please disregard any reference to a Bid Bond; a bid bond is not required for this project.

September 25, 2017

Question 13: 2.1.C Does the requirement indicate a fully rated isolated neutral bus or just a neutral grounding point. Please confirm if neutral bus is required. We typically would see a 3 phase 3 wire system with ground at this voltage.

3 phase/3 wire, system will be solidly grounded at the neutral of the station transformer.

Question 14: 2.4.J Is the welded requirement referring to the house or to the switchgear only. Is bolted construction ok in lieu of welded construction for the switchgear?

Welded is strongly preferred for switchgear cubicles. Owner may; at their discretion; choose to consider or reject bolted switchgear proposals.

Question 15: 2.6.C Circuit breakers insulators are glass polyester and are not available in porcelain. We have a special environment breaker that can be quoted that uses epoxy insulators. Is this required? Is quoting the bus supports and spouts in the switchgear with epoxy in lieu of porcelain acceptable?

Standard glass polyester breakers are acceptable. Spouts and supports are acceptable in epoxy.

Question 16: 2.6.G 95kv is the standard BIL rating for 15kv switchgear. Will this be acceptable or will we need to quote 27kv equipment in order to meet the BIL requirement?

95kV is acceptable

Question 17: Section 2.5 Auxiliary Equipment: Provide a field termination cabinet – how many terminations are required?

The termination cabinet will need to have minimum 4 ct blocks and 6 12 slot terminal blocks. We will be landing 4-6 12C cables. Should include a knockout/getaway for the cables through the floor or walls.

END OF QUESTIONS