



1241 S. 31st Street West
Billings, Montana 59102
Phone: 406-294-8544
Fax: 406-869-2199

May 5, 2023

ENGIE North America, Inc
Mr. Charles Xu
1360 Post Oak Blvd, Suite 400
Houston, Texas 77056
charles.xu@engie.com

Re: Anson Battery Energy Storage System Projects

Dear Mr. Xu:

EPC Services Company (EPCS) is providing our ***indicative*** pricing for the design, procurement, construction and testing associated with the Anson BESS Substation and Transmission Line located in Jones County, Texas. EPC Services Company provides our clients a distinct benefit in the ability to deliver construction, testing and engineering design, through our parent company Electrical Consultants Inc. (ECI).

Our proposal is based on the information provided in the RFP. A brief summary of the equipment provided is listed below. This list is not exhaustive but provides a high-level description of the larger equipment items we have included per the RFP and our optimization efforts.

Due to market volatility, pricing, major material lead times, and contract schedule dates proposed herein are only valid until June 5, 2023. We have assumed construction will be completed by the 1st qtr. 2025. If the schedule extends beyond this date, costs will also be impacted.

1.0 Anson BESS Substation

Major 345 kV and 34.5 kV equipment to be provided for the substation includes:

- a. (3) 345 kV CCVT's, 0.3% Accuracy
- b. (2) 345 kV Motorized Group Operated Air Switches, 2000 A
- c. (1) 345 kV Power Circuit Breaker, 2000 A, 40 kA
- d. (3) 220 kV MCOV Surge Arrestors
- e. (1) 34.5 kV Main Disconnect Switch, 5000 A
- f. (21) 34.5 kV Hookstick Operated Breaker Disconnect Switch, 1200 A
- g. (10) 34.5 kV Manual Operated Feeder Disconnect Switch, 2000 A
- h. (5) 34.5 kV Feeder Circuit Breakers, 1200 A, 31.5 kA
- i. (1) 34.5 kV Capacitor Bank Circuit Breaker, 1200 A, 31.5 kA

- j. (30) 24.4 MCOV Surge Arrestors
- k. (1) 12.5 MVAR 34.5 kV Cap Bank w/CapSwitcher (assumed size, actual TBD)
- l. (1) 34.5 kV 50 kVA Station Service Transformer
- m. (1) Lot Relay and Communications Panels
- n. (1) Lot of Substation Tubular and Standard Shape Steel
- o. (1) Standard Solar Substation SCADA System
- p. (1) Control Building, approximately 15' x 60', modular design, complete with HVAC, AC and DC power systems, fire protection system (smoke detectors only) and all accessories
- q. (1) 125 VDC Battery System, 150 AH with Charger/Spill/Rack
- r. (1) Lot of Relay, Metering and Communications

Owner Supplied Equipment:

- a. (1) 135/180/225 MVA 34.5 kV-345 kV Main Power Transformer Supplied, Delivered, Tested, and Commissioned by Owner

The substation will be designed with 2" and 6" bus for Sowers and 2" and 5" for Tanzanite. The static masts and dead-ends will be tapered tubular design structures; all other steel will utilize standard shapes. The substation will include all work from concept through test and commissioning prior to energization. All engineering support during construction, project management, construction management, meetings, coordination, testing and commissioning is included as required by Engie Energy.

2.0 BESS 1-Hour Option:

Major BESS equipment to be installed:

- a. (41) 4.0 MVA Sungrow SC4000UD-MV-US PCS units. Furnished by owner and installed by EPCS.
- b. (82) 2.236 MW/2.236 MWh Sungrow ST2236UX-US Battery containers. Furnished by owner and installed by EPCS.
- c. (3) 1.5 MVA 34.5 kV / 480 V Aux Transformers with transfer switch and panel boards.

3.0 BESS 2-Hour Option:

Major BESS equipment to be installed:

- a. (42) 4.0 MVA Sungrow SC4000UD-MV-US PCS units. Furnished by owner and installed by EPCS.
- b. (126) 1.376 MW/ 2.752 MWh Sungrow ST2752UX-US Battery containers. Furnished by owner and installed by EPCS.
- c. (4) 1.5 MVA 34.5 kV / 480 V Aux Transformers with transfer switch and panel boards.

4.0 Substation & BESS Clarifications and Assumptions

- a. We have assumed that the contract will be finalized by August 1, 2023 and that construction will be completed by 2nd qtr. 2025. If the schedule extends beyond this date, costs may be increased.
- b. EPCS is open to having discussions in regard to L.D.s that are reasonable and mutually agreed upon.
- c. Pricing includes a two (2) year warranty on all labor, equipment and materials for the substation and transmission line. The warranty period shall commence upon mechanical completion of the overhead transmission line. Warranty period for the substation will commence upon written notice from EPCS to the owner that testing and commissioning by EPCS personnel has been completed. Additional warranty duration can be arranged for an additional fee.
- d. Warranty durations and costs are based on a start date at energization of the substation.
- e. Pricing is based on release of retainage no later than 60 days after substantial completion of our scope of work.
- f. Testing, commissioning, and energization of substation electrical systems (up to the feeder disconnect switch) are included in our proposal. Energization of the system is limited to the equipment and cables installed by EPCS and our subcontractors. Upon energization, EPCS will remove our lockouts and turn care, custody, and control of the electrical system to the client. ✓
- g. Upon request from the client/owner, EPCS can provide switching and related support services for the electrical system installed by others (MV electrical feeders) for an additional fee of \$3,250 per day with a three-day minimum. If on-site standby support is required, the cost shall be \$9,750 per week. All requests for switching shall be made by the client not less than 4 weeks prior to the required date.
- h. Unless the RFP requires us to specify the transformer, our proposal assumes that the substation equipment duty will be less than 40 kA with an assumed X/R ratio of 17 or less.

- i. We are including revenue class (0.3% accuracy) revenue metering equipment. We have included two (2) SEL 735 Owner check meters for revenue grade metering in the control building. Any additional metering required is not included.
- j. EPC Services has included the cost of site grubbing and grading based on a balanced fill site (no import or export included). The existing grade is expected to have not more than 4' of fall and an average of 2' cut to fill.
- k. Grading costs may vary substantially depending on type of soils encountered and time of year for grading. Our pricing assumes the use of select native fill materials only with no additional costs for processing of unsuitable materials including but not limited to sand, collapsible soils, contaminated soils, large rock, and any other material that cannot meet compaction requirements without additional processing.
- l. The capacitor bank assumption is for one (1) 12.5 MVAR, including CapSwitcher having pre-insertion resistors. No current limiting reactors or spare capacitor cans are included.
- m. All work required at the substation to provide materials for the SCADA system, including engineering and testing, is included in EPC Services' bid.
- n. Our bid includes one (1) 50 kVA station service supply for Anson Substation from the 34.5 kV collection bus, with provision for a secondary connection from a local distribution source; however, no cables or conduit for this secondary source are included.
- o. Our bid includes complete design engineering, engineering support during construction, construction management and coordination for the EPC execution of the substation project.
- p. Test plan for commissioning will be developed, as well as maintenance manuals upon completion. As-builts for all facilities constructed will be provided by EPCS.
- q. Auxiliary systems include a single 125 VDC battery and charger, as well as redundancy in control circuits.
- r. EPC Services will coordinate and manage the installation of outside communications lines as required for the project, not including any physical trenching or physical installation from a point ending 10 feet outside the substation fence line.
- s. Installation, termination and testing of distribution/collection medium voltage conductors is assumed to be provided by others including all hardware necessary for connections.
- t. We have only included temporary power for our construction office and trailers. No owner office trailers have been included. We will provide temporary power for initial control building testing. Once we are mechanically complete and initial substation energization is achieved, no temporary power will be provided and we will demobilize our temporary facilities and generator. It is expected that the substation

control building will be fed from the collection bus or backup generator at that time installed by others.

- u. All below grade PVC conduit is assumed to be direct burial without concrete encasement.
- v. Pricing for steel structures; copper and aluminum conductor is based on current London Metal Index (LME) raw material index pricing from March 2023. Fluctuations in raw material costs will be passed on to the owner when the pricing can be finalized based on material production dates.
- w. Disconnect switches proposed for the 34.5 kV feeder positions are manual group operated. The capacitor bank beaker and main MPT 34.5 kV disconnect switches are hookstick operated.
- x. Sales tax is included at a rate of 6.25% for Jones County, Texas
- y. Performance and payment bonds are presently included in our proposal. If a bond is not required, significant savings can be provided. Builder's risk insurance is not included in our proposal.
- z. We have not included a night-time roving site security guard as we assume this will be provided by the BOP Contractor.
- aa. Our proposal includes one full-time onsite safety representative after grading is completed for the duration of the project. The full time representative will be responsible for the BESS, substation, and transmission scope of work.
- bb. Pricing is contingent on mutually agreeable contract terms and conditions and project schedule.
- cc. Owner or client-initiated delays will result in additional costs and a day-for-day schedule delay on the completion date. These same delays may be subject to additional charges for costs related to General Conditions and Overheads to be invoiced to the owner or client.
- dd. Concrete foundations do not include permanent or temporary casing or rock drilling.
- ee. Temporary laydown areas are to be provided by the owner or others.
- ff. All extreme hard digging (e.g., defined as less than 8 feet/hour with required sized auger or guy anchor), rock excavation, blasting, and/or pneumatic or hydraulic hammer excavation is excluded.
- gg. All dirt spoils generated from excavations associated with transmission or overhead collection system will be distributed within the general area of the excavation generating the spoils material.
- hh. Pricing by EPC Services assumes that the Owner or others shall provide access to sufficient amounts of water to be used as dust palliative. We have assumed water is

available within two miles of the substation site.

- ii. Pricing is based on a contiguous effort upon mobilization. Any delays, other than those identified in the environmental reports contained within the RFP and Addenda, due to the lack of site availability to construct the lines may require revised scheduling and pricing.
- jj. The development of Environmental Protection and Environmental Management Plans are excluded.
- kk. Our parent company (ECI) will provide engineering services for this project. A list of the standard engineering studies is shown below. Additional studies or services are possible based on the owner's requirements. However, please consider the below list as the studies that are included in our proposal.
 - a. Substation Grounding (CDEGS)
 - b. Cable Ampacity and Losses
 - c. Arc Flash
 - d. Desktop Harmonics (no onsite after energization metering included, by others)
 - e. Lightning
 - f. Insulation Coordination
 - g. Reactive Requirements (if a Cap Bank is required)
 - h. Short Circuit

Optional Studies (Owner to Confirm)

- a. Transient Overvoltage (TOV)
 - b. Ride Through Voltage
 - c. Others as listed in the RFP or requested by the Owner - TBD
- ll. Equipment provided is constructed per ANSI/IEEE requirements. Special inspections and Underwriter's Laboratory (UL) review/listing of control buildings and other engineered electrical equipment is not included in our proposal.

5.0 Anson BESS 345 kV Transmission Line

The Anson 345 kV Transmission line is proposed to connect the new substation with the Point of Interconnection which is understood to be located at an unnamed Switchyard. The approximate total length of the line as indicated on the .kmz file provided with the RFP is approximately .9 miles.

EPCS has based our pricing on the quantity and structure heights indicated on the attached preliminary engineering drawings developed by ECI/EPC Services and included with this

submittal. Pricing for the line was based on the use of self-supporting tubular steel monopoles utilizing weathering steel. Tangent structures have been assumed to be founded in a directly embedded fashion making use of native material for backfill. Dead-end and angle structures will be founded on reinforced concrete drilled piers.

The conductor on which EPCS based our pricing is a vertically arranged double bundled 795 kcmil ACSR “Drake”. The conductors are proposed are braced posts which are to be installed in a “delta” configuration with one conductor high and the two lower phases placed back-to-back on opposite sides of the pole. Preliminary drawings of both the plan and profile and typical framing details are being submitted with our proposal.

EPCS wishes to point out that our proposed pricing is based on the use of a foreign-sourced manufacturer for the conductor. Should the use of a domestic manufacturer of conductor be required by the Owner, the cost of the proposal will increase appreciably.

6.0 Permitting Clarifications

- a. EPCS’ pricing includes the following permits:
 - i. County Grading permit for structure site/pad and pull site development;
- b. EPCS has not included pricing for permit acquisition other than for those permits specifically identified in the RFP as being the responsibility of the contractor.
- c. If it is determined impacts cannot be avoided to threatened and endangered species, EPCS will, on a time and material basis, assist with the development of a mitigation plan for agency review but will not be responsible for mitigation fees associated with species impacts.
- d. ECI has included costs for standard permitting process based on review of codes, statutes and laws. However, should regulators assert discretionary authority where additional mitigation efforts, design changes or project due diligence is necessary or should authorities interpret existing regulations so that the permit acquisition incurs unforeseeable costs and schedule delays at the time of the bid, EPCS will continue to support the permitting process but additional mitigation costs and schedule impacts are not included in our base pricing or schedule.
- e. If it is determined impacts cannot be avoided to biological, cultural or historic resources, EPCS will assist with permitting by providing support data, drawings and mitigation plans, but will not be responsible for mitigation fees associated with said impacts.

7.0 EPC Project Management Approach

EPC Services will have representatives at the project site through all phases of construction to manage self-performed and contract work, materials receiving, safety management and other required duties. Our Field Construction Manager will be responsible for daily

meetings with subcontractors, as well as with Engie personnel weekly or as otherwise required. Our Field Construction Manager will be a selected industry professional with significant experience in similar past construction.

8.0 EPC Testing Scope of Services

EPC Services will provide all electrical testing and commissioning with in-house resources for the Substation and BESS in accordance with industry standard procedures. Testing will include:

- a. Circuit breaker tests as applicable to type of breaker include travel, timing, SF6 gas analysis, vacuum integrity, dielectric withstand and power factor testing
- b. Instrument transformers ratio, polarity and saturation
- c. Capacitively coupled voltage transformer ratio, capacitance and power factor
- d. Air switch contact resistance and dielectric withstand tests
- e. Bus structure dielectric withstand tests
- f. Relay setting, control, and logic function tests
- g. Substation ground grid
- h. High voltage cable dielectric withstand testing – VLF, DC, or AC (no partial discharge testing is included for the MV cable)
- i. Automatic transfer switch functional and contact resistance testing
- j. Battery voltage, specific gravity, impedance, and capacity tests
- k. Battery charger setup and alarm function checks
- l. Reactor and Capacitor bank testing
- m. Transformer ratio, winding resistance, polarization index, power factor and oil tests
- n. Final functional and miscellaneous tests of substation equipment to verify proper interaction between all equipment

Other tests as prescribed by industry standard to meet accepted quality will be performed.

9.0 Testing & Commissioning Clarifications

- a. During testing and commissioning procedures EPCS assumes the client will LOTO the first line switch into the station and the last disconnect switch for each feeder out of the station. EPCS will be responsible for all other equipment inside the station.
- b. EPC Services testing and commissioning does not include end to end testing for remote end components not installed under our scope of work.

- c. We pride ourselves on long term support for our clients and our projects. We offer ongoing annual and/or periodic maintenance testing in accordance with the NETA MTS (Maintenance Testing Specification) program. This service can be provided at an additional cost if desired. We can offer short term (one year) or long term (five years) contracts to meet site specific requirements.
- d. All on-site training provided by our staff is limited to general operation of the various components of the station. It does not qualify or certify the personnel present for the training as qualified to operate the system or the individual components.
- e. Testing and commissioning as performed by EPCS and the system switching related thereto, will be limited to that equipment installed by EPCS. Upon request from the client/owner, EPCS can provide switching and related support services for an additional fee.

EPC Services believes that our experience in the area, knowledge and proven performance make us an ideal partner for Engie.

Thank you for the opportunity to respond to this request.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. McComish', with a stylized, flowing script.

Richard McComish, President, P.E.