

ESS Microgrid: Buyer Working Scope

This document highlights ETB Buyer scope of work related to microgrid aspects of the design and installation. Full scope of work for design and installation of the Energy Storage System and ETB Controller can be referenced in the General Working Scope and product installation manuals. This does not cover tasks performed by ETB or ESS Vendors.

Table 1: Working Scope of Buyer

No.	Type	Description	Remark
1	Design & Engineering	<ul style="list-style-type: none"> ○ Low Voltage Wiring Diagrams ○ Sequence of Operations plan ○ Back-up load analysis & Battery sizing ○ Isolation/Grounding Transformer specification ○ Line reactor sizing and specifications (as applicable) 	ETB provides design guidelines but does not perform the actual design work. Refer to Microgrid documents and manuals for vendor-specific design requirements
2	Grid Protection Relay (SEL-751 or similar)	<ul style="list-style-type: none"> ○ Grid protection relay procurement ○ Relay and connecting equipment wiring diagram(s) ○ Relay settings file creation ○ Relay programming & testing 	ETB provides specifications but does not handle procurement or programming. Refer to ESS manual for relay specifications, as applicable
3	Manufacturing & Hardware Supply	<ul style="list-style-type: none"> ○ High and low voltage switchboards ○ Motorized breakers or contactors ○ Electric B.O.S. (transformers, disconnects, panels, etc.) ○ PV system equipment ○ Generator or generator controller ○ AC/DC power & low voltage cables ○ Auxiliary power supply for battery* 	*Refer to ESS manual for design specifications
4	Installation	<ul style="list-style-type: none"> ○ ETB & ESS Vendor do not perform any onsite installation of supplied equipment 	All installation tasks, including setup, wiring, and testing, are the responsibility of the buyer. Refer to the General Working Scope and product installation manuals for detailed instructions.
5	Commissioning	<ul style="list-style-type: none"> ○ Completion of battery commissioning documentation ○ Relay commissioning and testing ○ Load bank* 	*If applicable for on-site testing of equipment

Disclaimer: Any tasks not explicitly mentioned in this document are not inherently within the scope of ETB or ESS Vendor's responsibilities. Buyers are advised to refer to the General Working Scope and product installation manuals for comprehensive details.