

## Annexure -IV Description of 230kV HGIS modules

### **Description of bay shall be as follows:**

#### **230kV Line Feeder Bay:**

Each set of 245kV, 1600A, 50kA for 1 second, SF6 gas-insulated Outdoor Hybrid GIS assembly for Line feeder bay shall comprise of :-

1. One no. 1600A, 50kA, 3-phase, SF6 insulated circuit breaker, complete with operating mechanism.
2. Three Nos. 1-phase, 1600A, 5-core, multi ratio, current transformers distributed on both side or one side of the Circuit breaker
3. Three nos. 3-phase, 1600A, 50kA group operated isolator switches, complete with manual and motor driven operating mechanisms.
4. Two nos. 3-phase, group operated safety grounding switches, complete with manual and motor driven operating mechanisms.
5. One no. 3-phase, high speed fault make grounding switch, complete with group operated manual and motor driven operating mechanisms.
6. Nine nos. 245kV, 1600A, 1ph. SF6 to Air Bushings for connection with two main buses(AIS) and overhead line side AIS equipment.
7. Gas monitoring devices, barriers, pressure switches as required.
8. Local Bay Control Cubicle (LCC) with mimic duly mounted on common base frame of complete Hybrid GIS Assembly.

#### **230kV Transformer Bay:**

Each set of 245kV, 1600A, 50kA for 1 second, SF6 gas-insulated Outdoor Hybrid GIS assembly for Line feeder bay shall comprise of:-

1. One no. 1600A, 50kA, 3-phase, SF6 insulated circuit breaker, complete with operating mechanism.
2. Three Nos. 1-phase, 1600A, 5-core, multi ratio, current transformers distributed on both side or one side of the Circuit breaker
3. Three nos. 3-phase, 1600A, 50kA group operated isolator switches, complete with manual and motor driven operating mechanisms.
4. Three nos. 3-phase, group operated safety grounding switches, complete with manual and motor driven operating mechanisms.
5. Nine nos. 245kV, 1600A, 1ph. SF6 to Air Bushings for connection with two main buses(AIS) and overhead line side AIS equipment.
6. Gas monitoring devices, barriers, pressure switches as required.
7. Local Bay Control Cubicle (LCC) with mimic duly mounted on common base frame of complete Hybrid GIS Assembly.

*Technical Specification, Section – Project*

*Technical Specification for 400kV GIS Extn Substation Package SS-156 Extension of 400/230kV Tuticorin-II GIS Substation*