

GENERAL DISCRIPTION OF THE PROJECT

1.1.1 SAMANALAWEWA SWITCHING STATION

Samanalawewa Switching Station shall consist of following main features.

1. 245 kV indoor gas insulated switchgear with double bus bar arrangement comprising of;
 - 06 Nos. 245 kV Line Feeder Bays
 - 01 Nos. 245 kV Bus Coupler Bay
2. 02 Nos. 33/0.4 kV, 200 kVA Auxiliary transformer (Pole Mounted)
3. Control, Metering, Monitoring and Protection equipment.
4. Batteries, Battery Chargers, DC equipment, LVAC and Inverter equipment etc.
5. SCADA & Communication equipment.
6. Substation Automation System.
7. Power Quality Analyzer.
8. Power and Control cables including terminations.
9. Substation Grounding System and Lightning Protection System.
10. Electrical, Civil and Mechanical works required for substation including control and other buildings.
11. CCTV system
12. 80 kVA Diesel Generator
13. 30 kW Roof-Top Solar PV system
14. Overhead crane for 245 kV GIS and loading arrangement for other floors.
15. Spare Parts and Tools.

1.1.2 MODIFICATIONS AT NEW POLPITIYA & HAMBANTOTA 220 kV SWITCHING STATIONS

- The Main 1 and Main 2 protection relays of the 220 kV lines shall be similar in order to establish the Line Differential protection. Presently 220 kV New Polpitiya - Hambantota lines are having ABB RED670 as Main 1 and Siemens 7SD5 as Main 2 relays.
- The existing Fiber Optic Multiplexers at Hambantota and New Polpitiya are of make FOX 615 by Hitachi Energy. Necessary interfacing shall be provided at Samanalawewa SS.

1.1.3 SAMANALAWEWA SOLAR COLLECTOR STATION

This scope will include the facilities that shall be provided at the Samanalawewa Solar Collector Station by the **Solar Collector Station Developer** in order to integrate control, protection, monitoring, metering and communication facilities with the existing CEB systems.