

# Appendix A

 System schematics and geographic drawings

## Contents

Appendix A includes a set of system schematics and geographic drawings of the current NETS, with the approximate locations of existing power stations and reactive compensation plants shown. The schematics also show the NETS boundaries and ETYS zones we have used in our analysis.

### Appendix A

#### Geographical

A1 – GB Existing Power Stations.....	2
A2 – GB Existing Transmission System.....	3
A3 – GB Transmission System Boundaries.....	4

#### Schematic

A4 – GB Existing Transmission System.....	5
A5 – GB Transmission System ETYS Zones.....	6
A6 – GB Transmission System Boundaries.....	7
A7 – GB Reactive Compensation Plant.....	8

Figure A1: GB Existing Power Stations

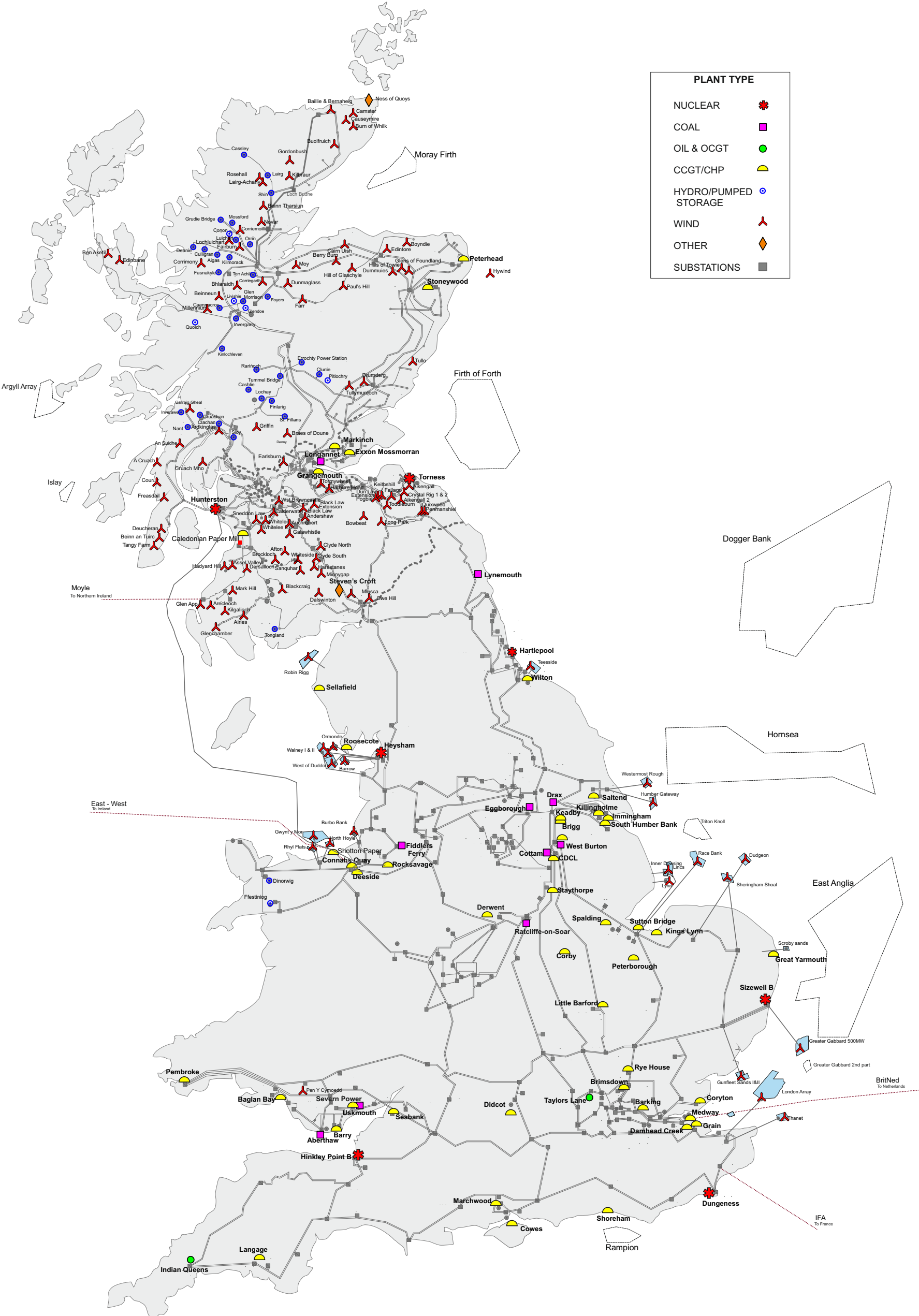


Figure A2: GB Existing Transmission System

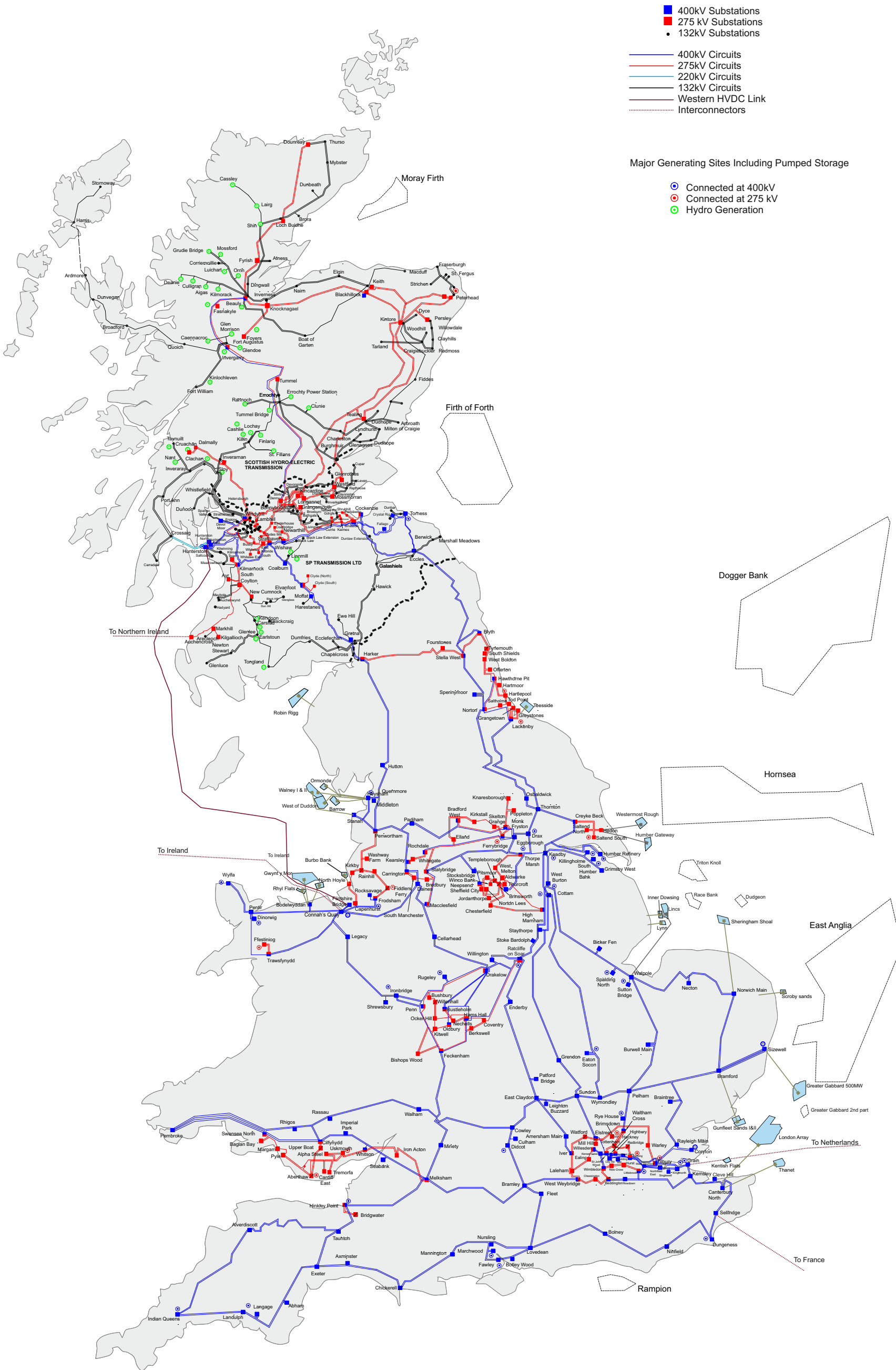


Figure A3: GB Transmission System Boundaries

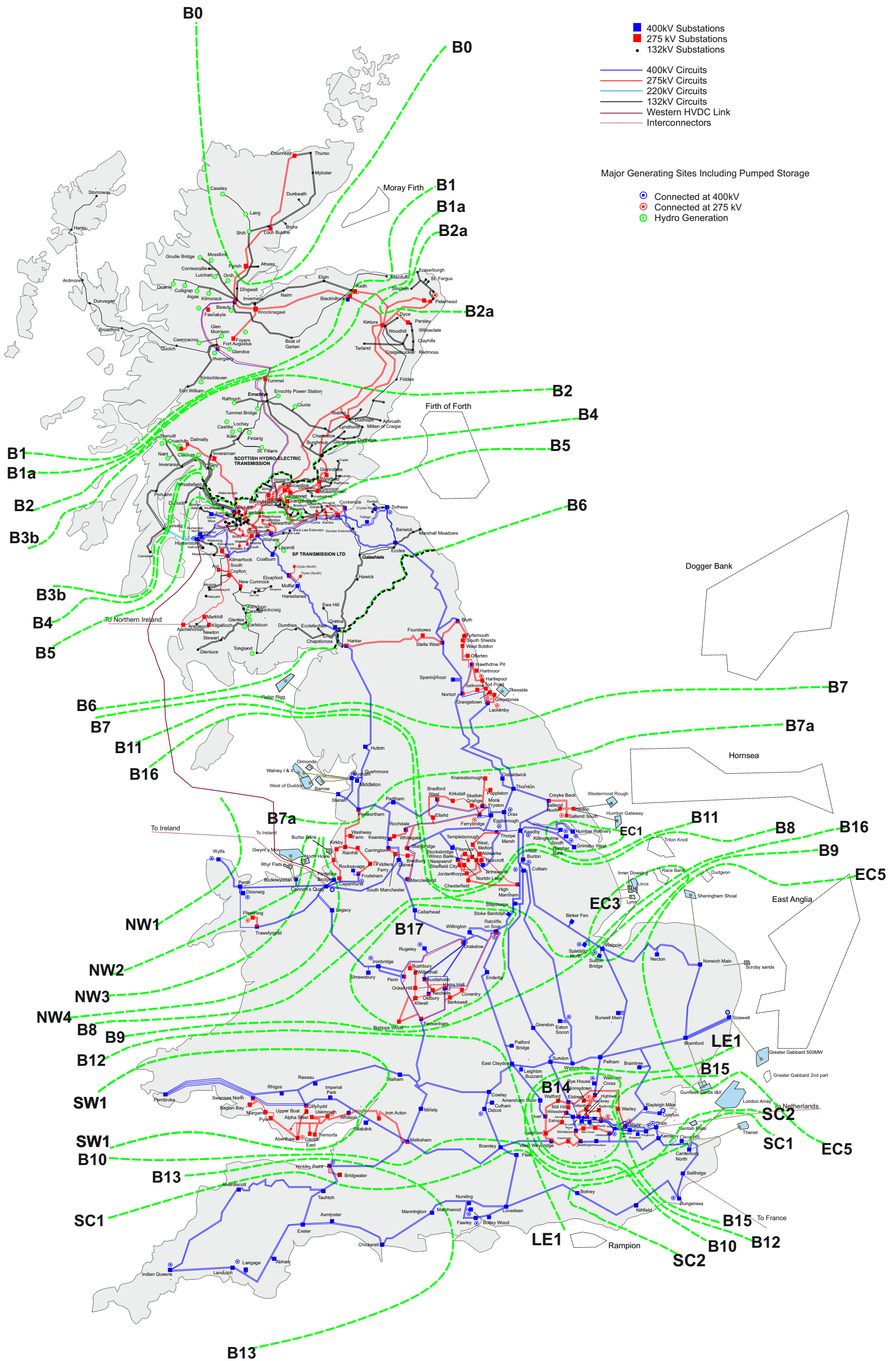


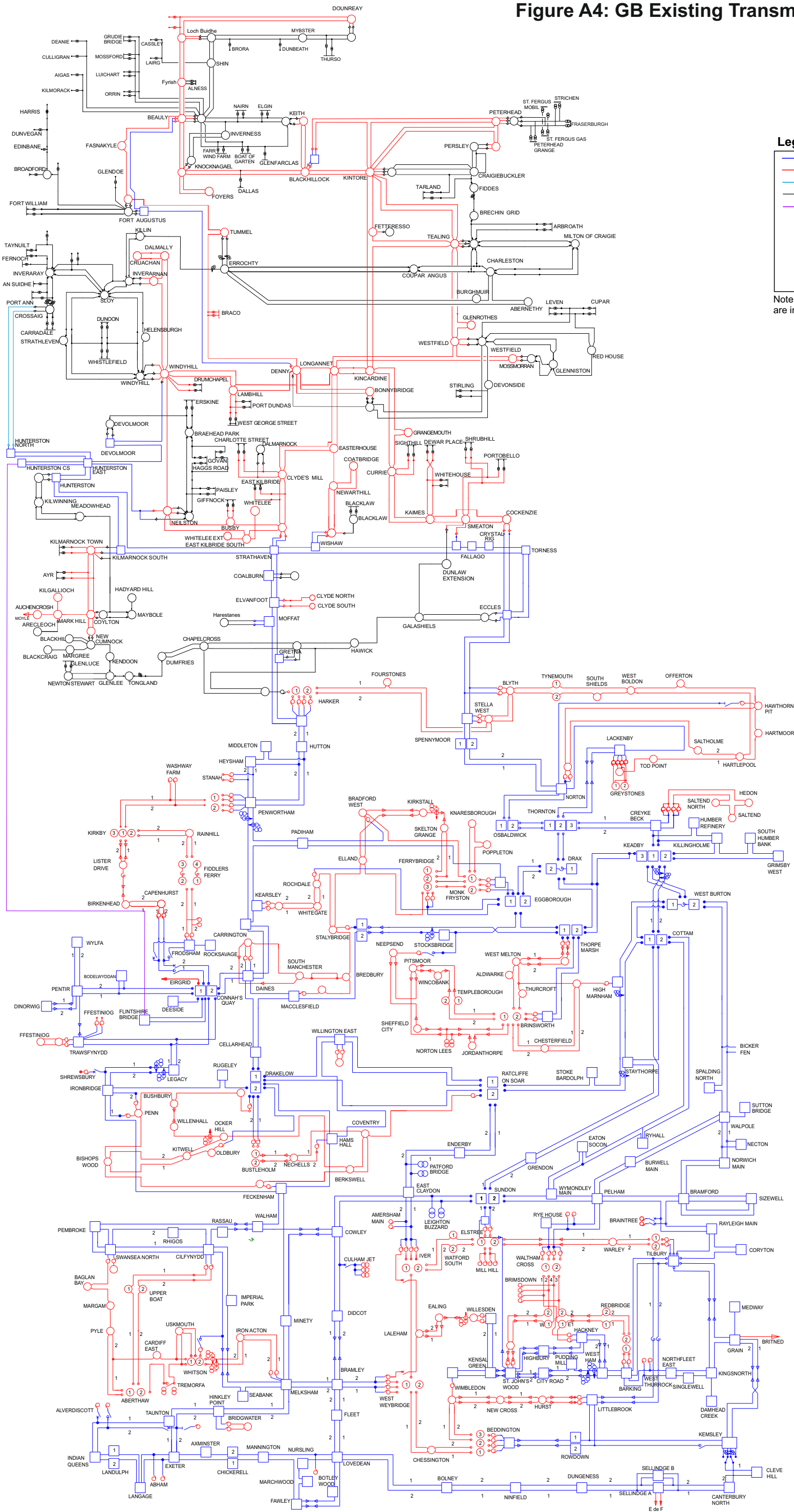


Figure A4: GB Existing Transmission System

SHE TRANSMISSION

SP TRANSMISSION

NATIONAL GRID



**Legend**

- 400kV Circuit
- 275kV Circuit
- 220kV Circuit
- 132kV Circuit
- Western HVDC Link
- 400kV Substation
- 275kV Substation
- 132kV Substation

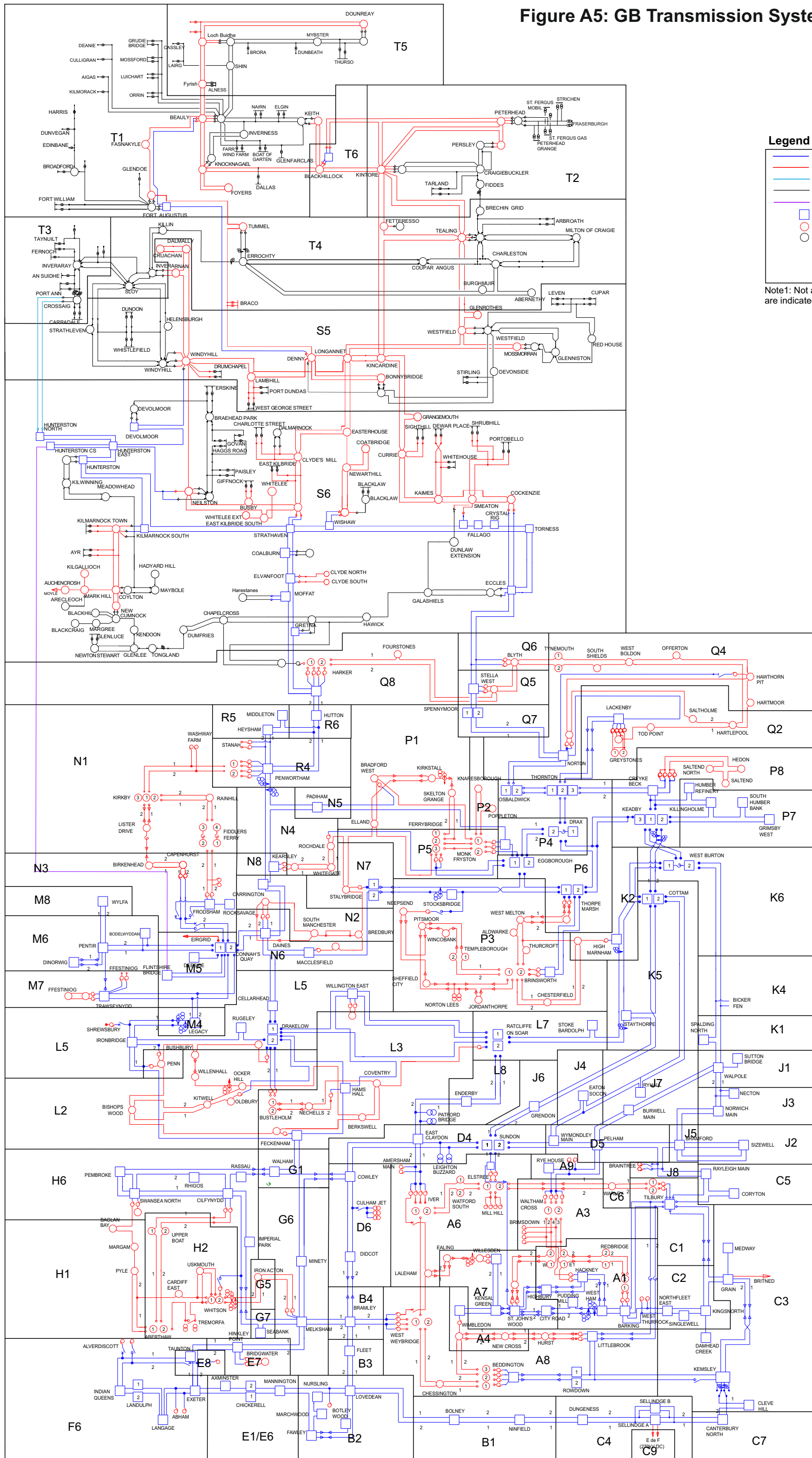
Note1: Not all radial 132kV circuits are indicated on this diagram

Figure A5: GB Transmission System ETYS Zones

SHE TRANSMISSION

SP TRANSMISSION

NATIONAL GRID



**Legend**

- 400kV Circuit
- 275kV Circuit
- 220kV Circuit
- 132kV Circuit
- Western HVDC Link
- 400kV Substation
- 275kV Substation
- 132kV Substation

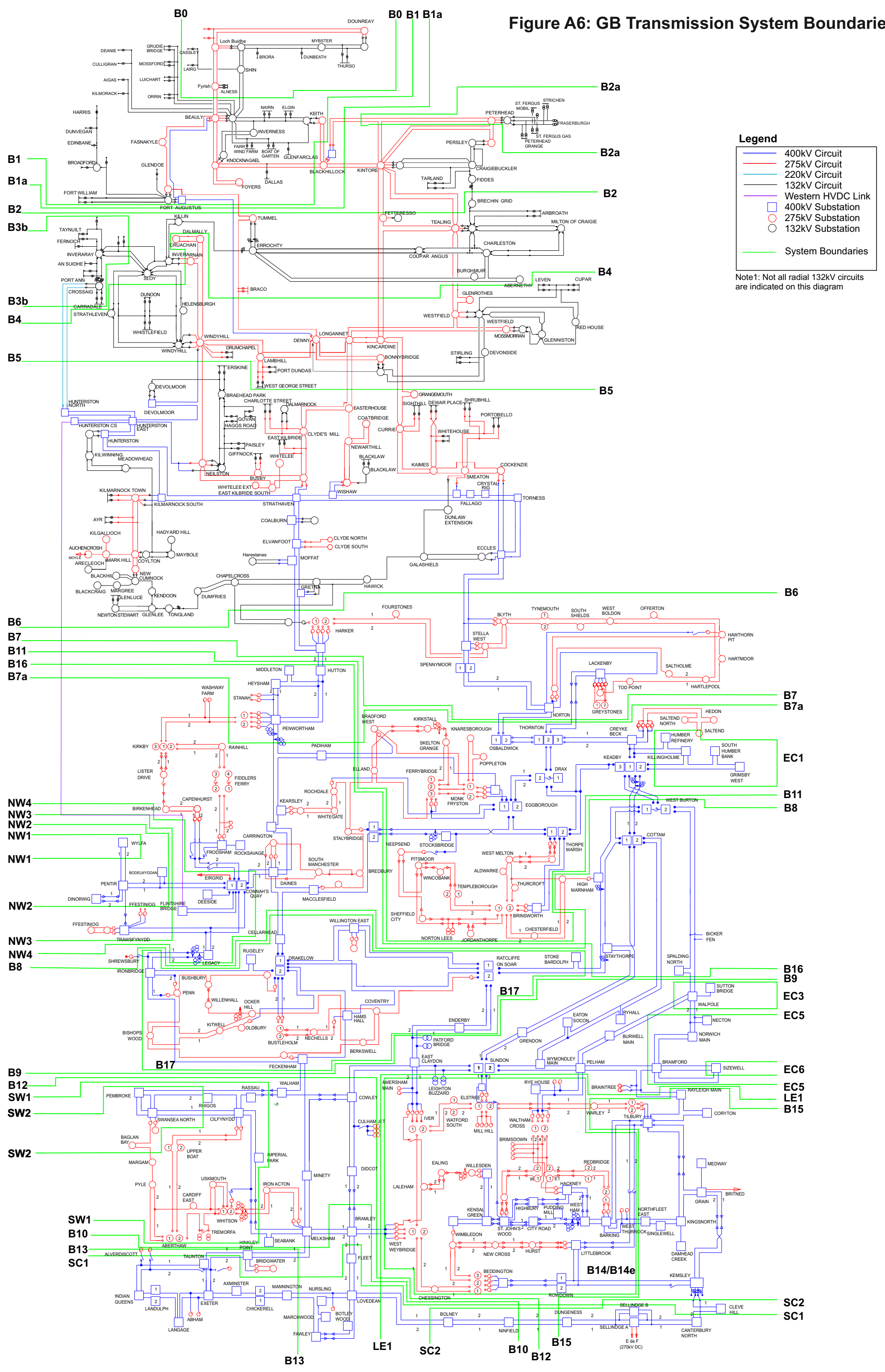
Note1: Not all radial 132kV circuits are indicated on this diagram

Figure A6: GB Transmission System Boundaries

SHE TRANSMISSION

SP TRANSMISSION

NATIONAL GRID



**Legend**

- 400kV Circuit
- 275kV Circuit
- 220kV Circuit
- 132kV Circuit
- Western HVDC Link
- 400kV Substation
- 275kV Substation
- 132kV Substation
- System Boundaries

Note1: Not all radial 132kV circuits are indicated on this diagram

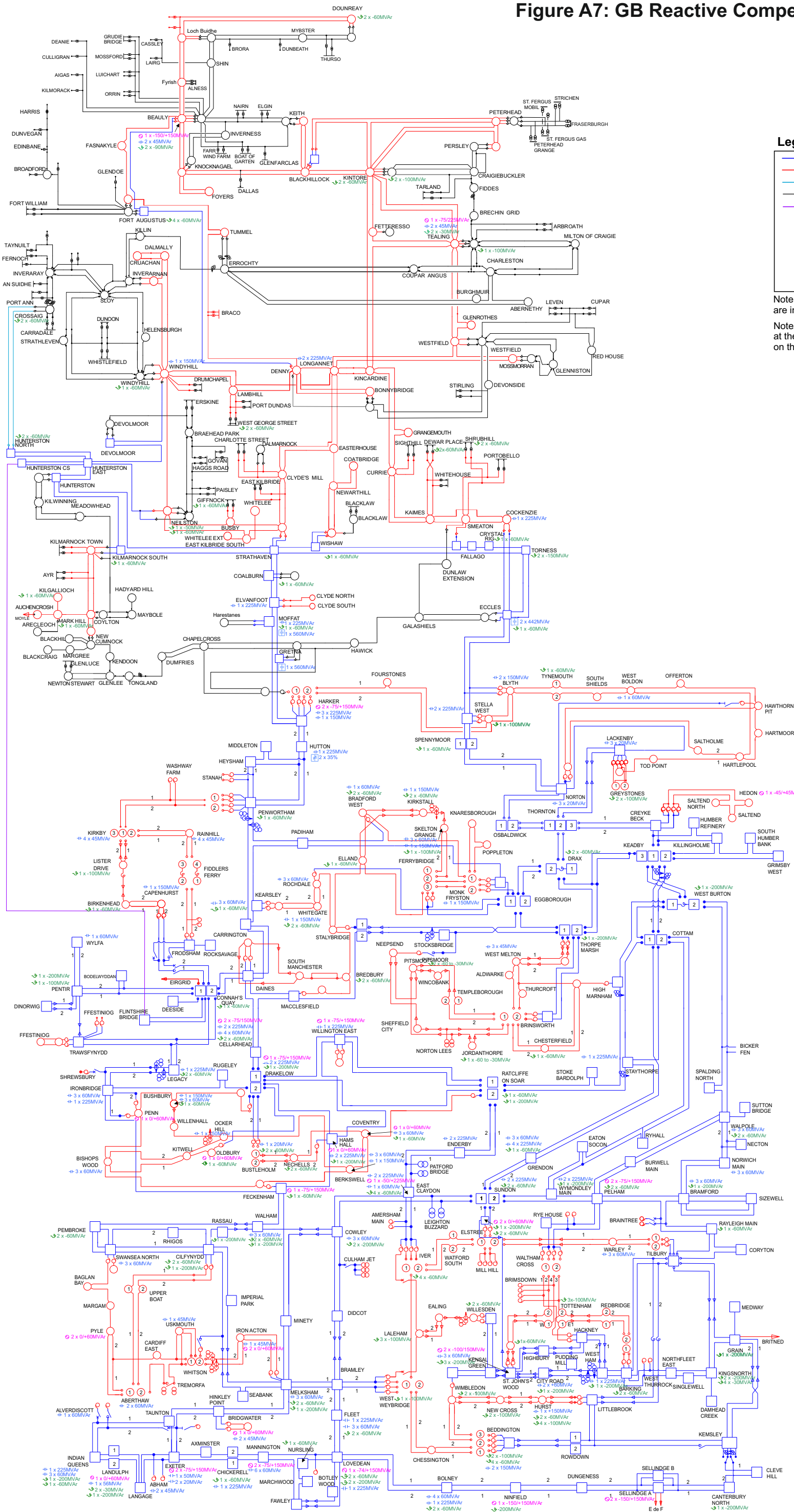


Figure A7: GB Reactive Compensation Plant

SHE TRANSMISSION

SP TRANSMISSION

NATIONAL GRID



Legend

- 400kV Circuit
- 275kV Circuit
- 220kV Circuit
- 132kV Circuit
- Western HVDC Link
- 400kV Substation
- 275kV Substation
- 132kV Substation
- SVC
- MSC
- + Reactor
- + Series Capacitor

Note1: Not all radial 132kV circuits are indicated on this diagram

Note2: Reactive compensation plants at the HVDC terminals are not listed on this diagram