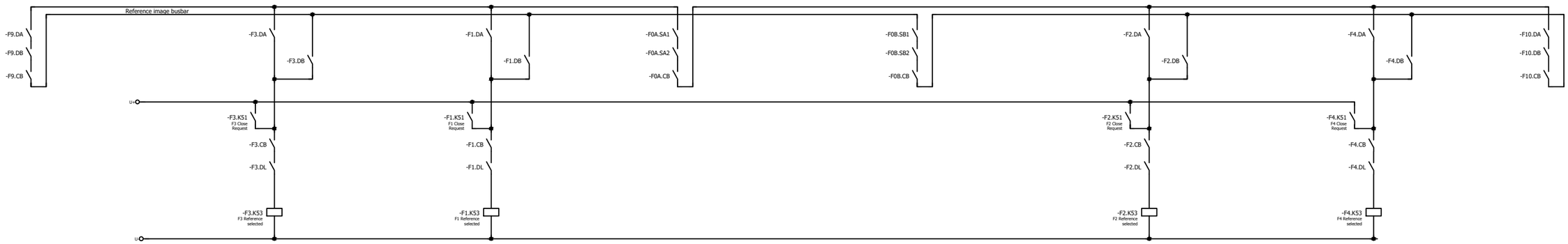

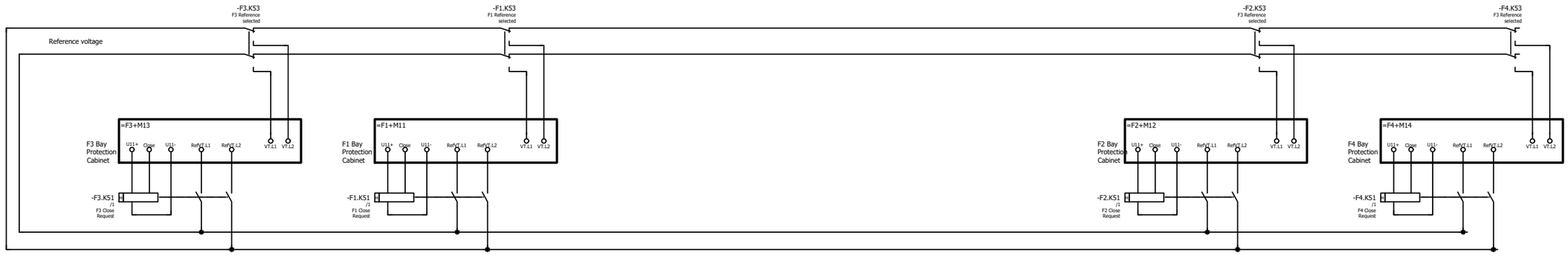

NOTES:

1. This elementary shows connections for the Voltage Selection Scheme (VSS) for either PoW or Auto Reclose (AR) supervision application in RTU ring busbar station with sectionaliser bays and wing coupler. For clarity, it only shows two bays per busbar section. all used and future bays shall be accounted for.
2. Primary contacts of the switchgear should be used for Position Indication (PI). If agreed with EirGrid multiplier relay could be used instead.
3. Single common scheme shall be used for all bays of the busbar.
4. DL contact is not required if the VT is installed on the CB side of the DL or if there is no DL in the bay.
5. Bay designations are shown for a 220 kV substation. They should be modified to match the required voltage level.
6. Cabinet and device designations (eg. contactors) are shown as an example only.
7. This scheme should be installed in a single dedicated cabinet.
8. Closed position indication shall only be returned when all poles of the device are fully closed.
9. The implementation may require multiple contactors to provide the required number of the contacts. The coils of the additional contactors to be connected in parallel.
10. Timer relays shall be set to output a pulse of a constant length starting from the close command rising edge. Required length will be decided for each application. Use 2s if not specified otherwise.
11. It is anticipated that the following segregated and individually protected DC power supplies will be used:
    U – Dedicated supply for the VSS scheme from the 220 V DC battery
    Fx.U11 – Bay specific supply for Close command
12. Use "Close–" output contact to start the scheme for AR supervision requirements.
13. If synchronising scheme is used, it shall be modified to accommodate the requirements for PoW or AR supervision and this simpler scheme shall not be used.

REV	DESC	DRAWN	CHK'D	APP'D	DATE
00	FIRST ISSUE	KC	DG	NC	22/01/2025

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PROJECT
STANDARD 220 kV SUBSTATION
VOLTAGE SELECTION SCHEME (VSS)

DRAWING TITLE
VOLTAGE SELECTION SCHEME
RING BUSBAR RTU (NON-SCS)
ELEMENTARY DIAGRAM

No of Shts	SIZE	SCALE
1	A3	N/A

DRAWING NUMBER	SHEET	REV
XDN-ELS-STND-G-002	001	00

DRAWING IS NOT TO SCALE - IF IN DOUBT, ASK