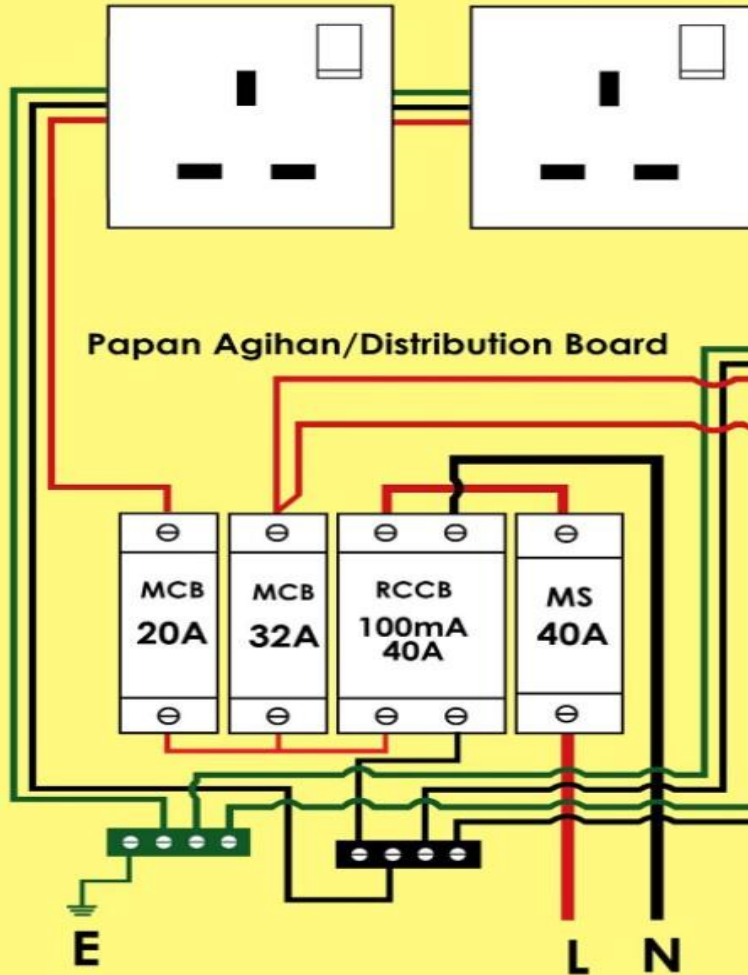


SISTEM VOLTAN SEDERHANA LANJUTAN

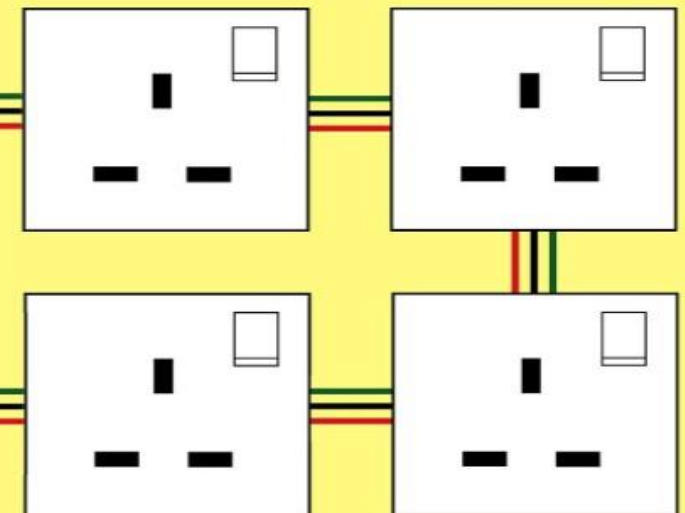
Analisis kiraan Rekabentuk

-RES-

Litar Jejari/ Radial Circuit



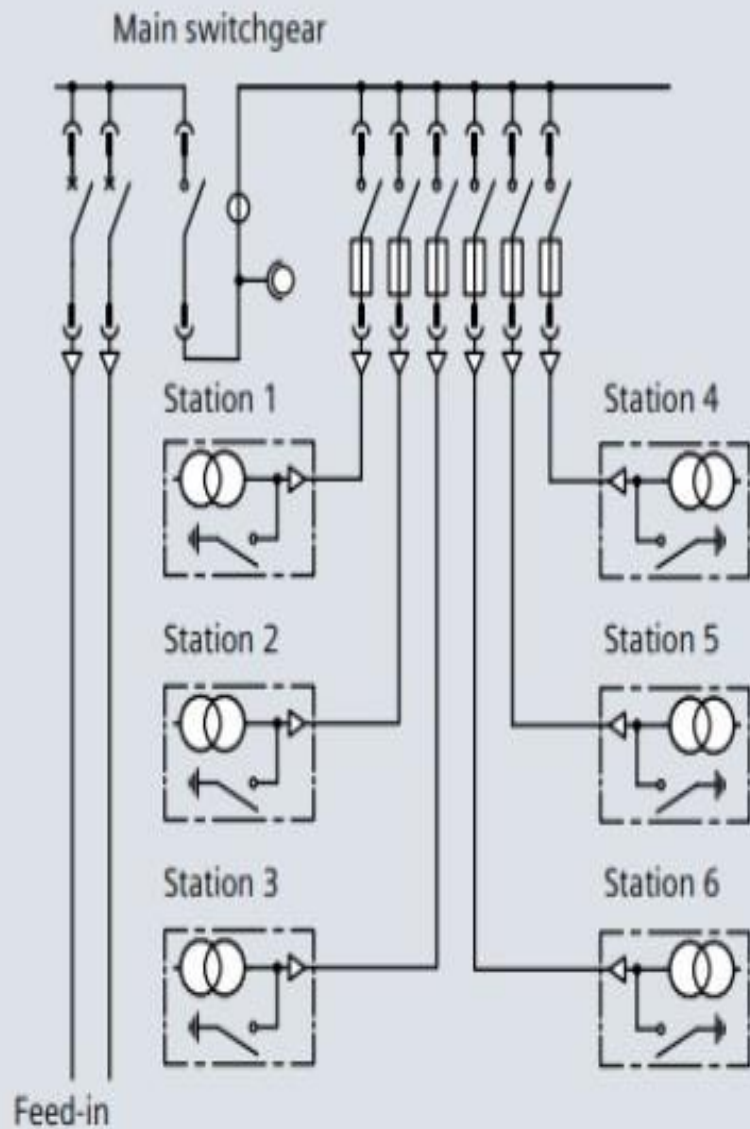
Litar Gelang/ Ring Circuit



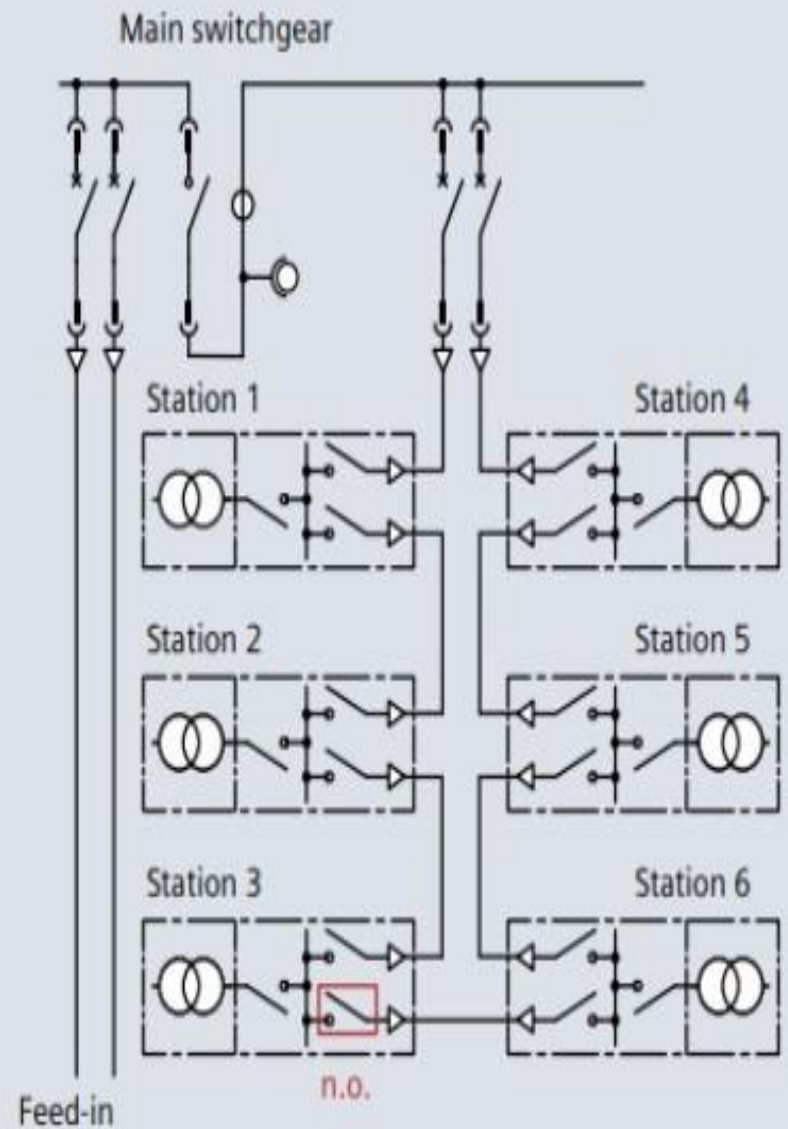
Wiring color legend:

- Earth
- Live
- Neutral

Radial network (spur network)



Ringed network normally open (n. o.)



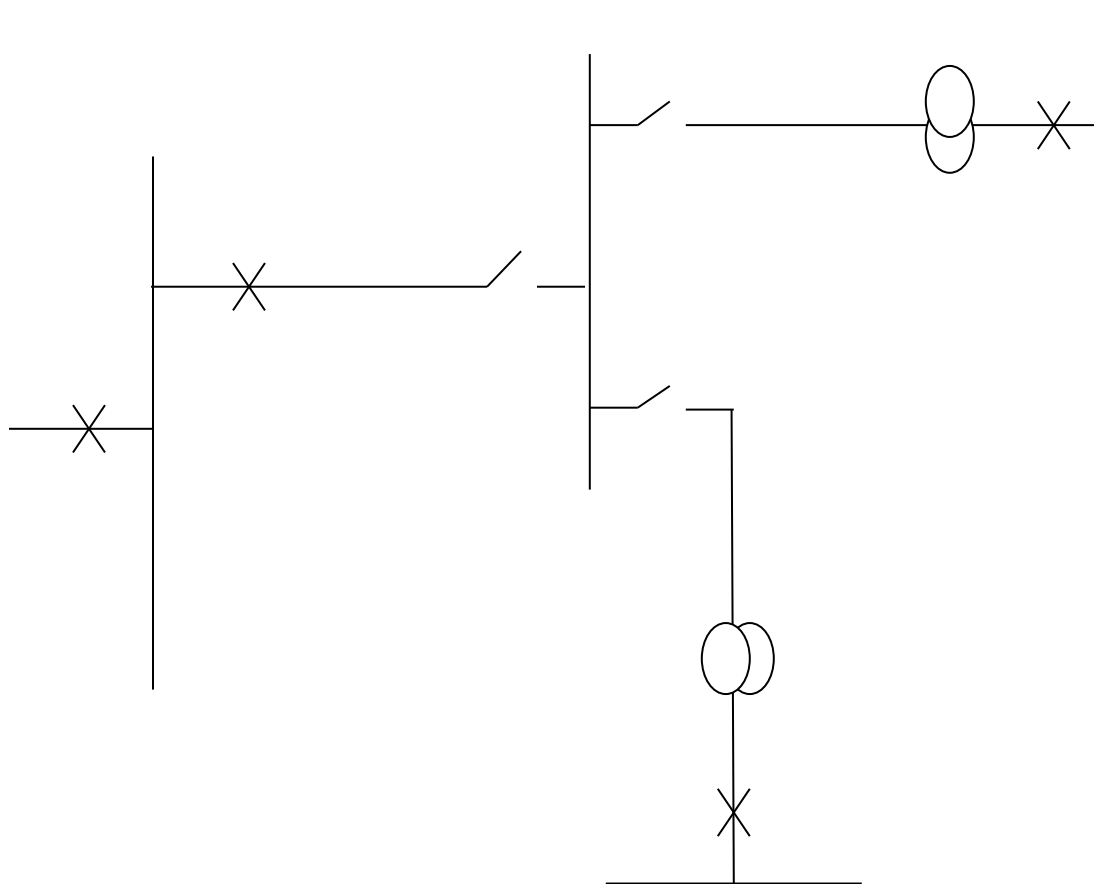
Radial Circuit

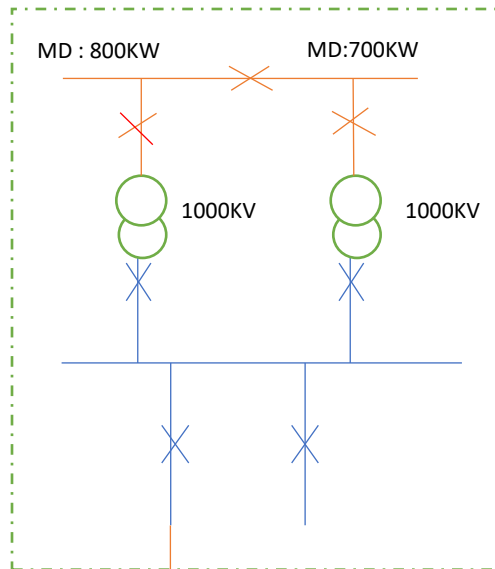
RMU

SSU

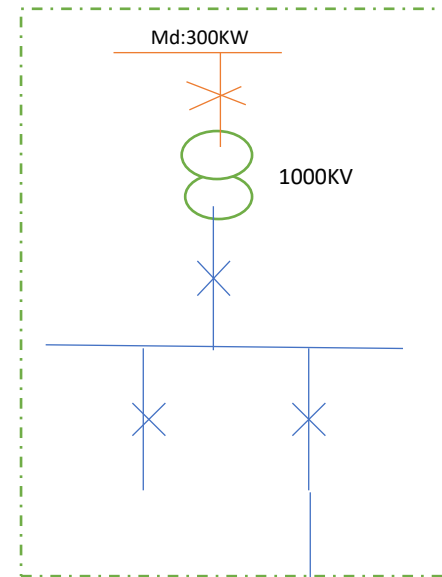
LV

LV

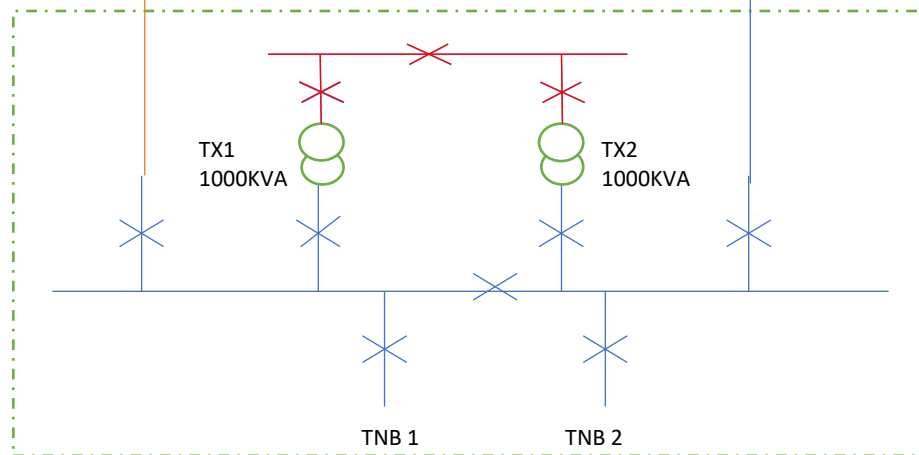




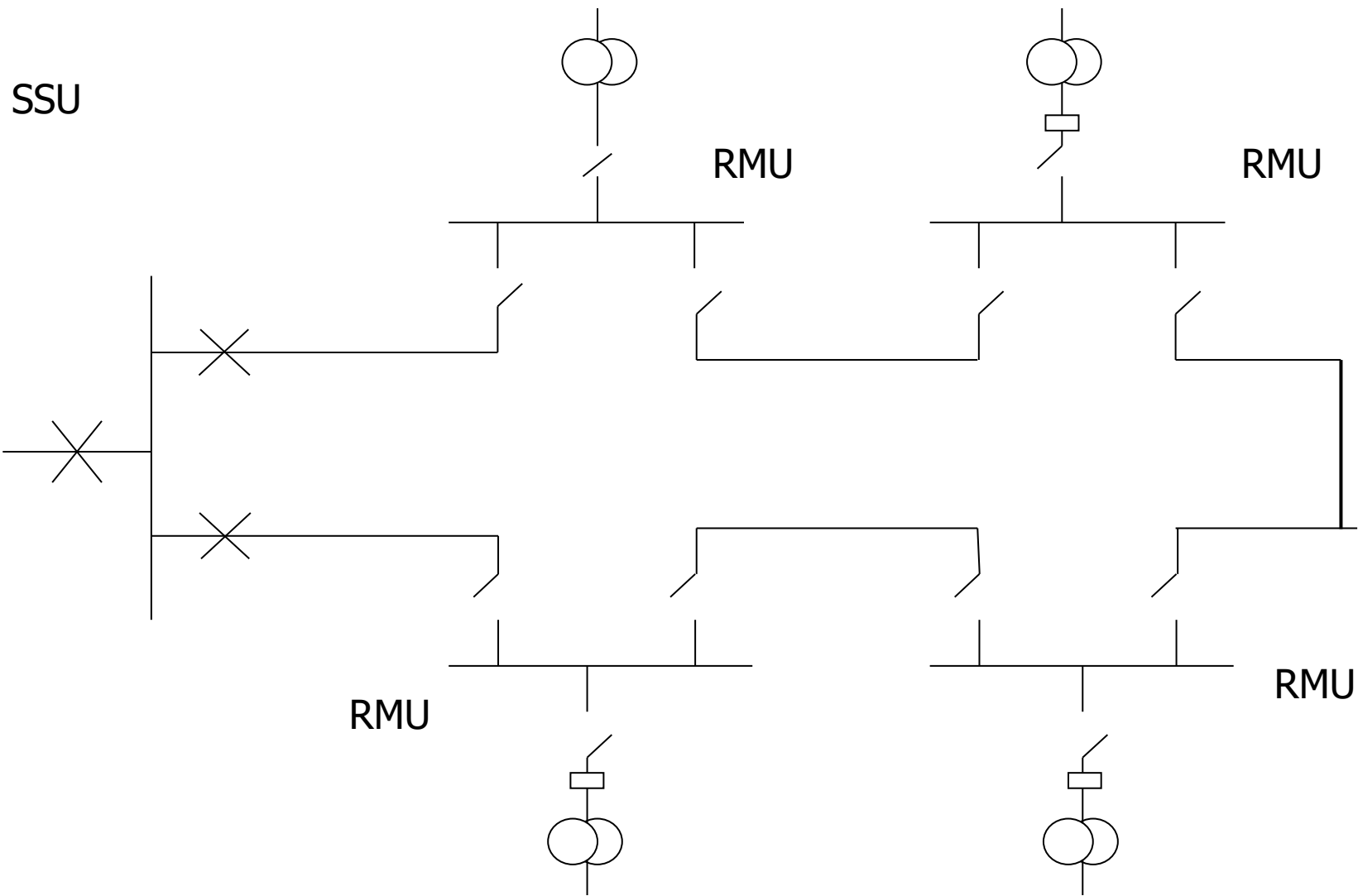
11kV METALENCLOSED
SWITCHGEAR 20kA @11kV,3S

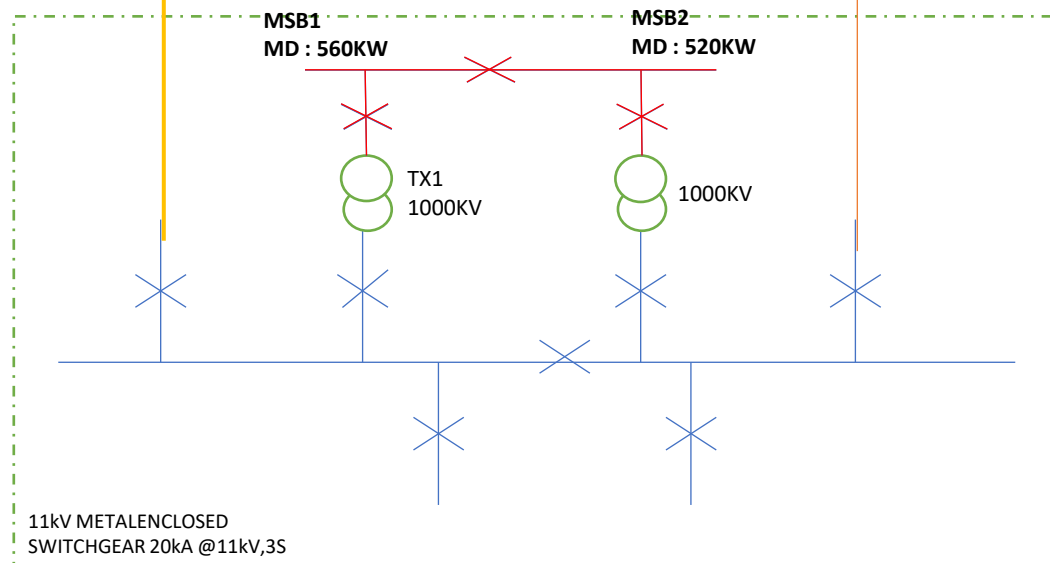
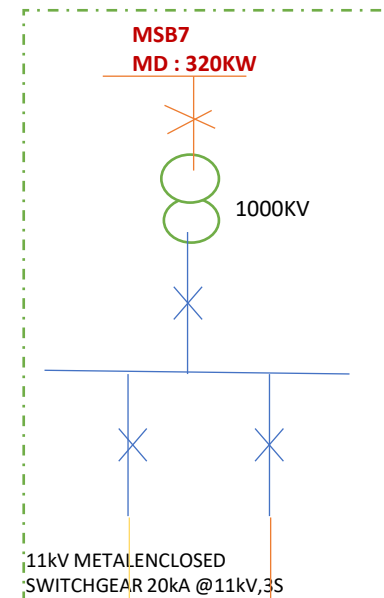
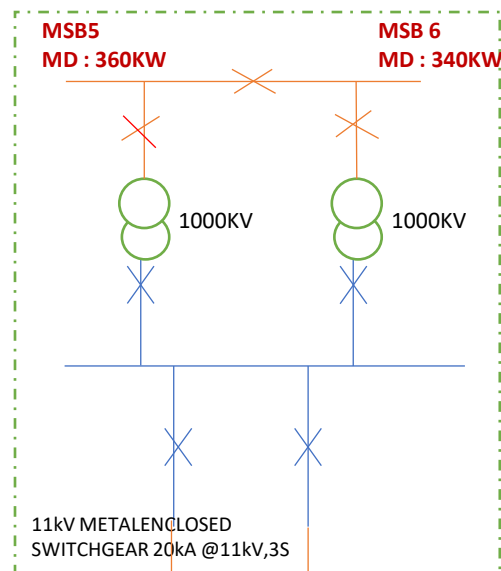
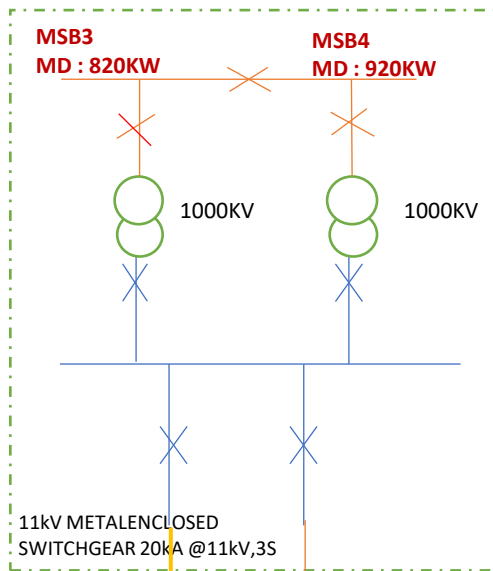


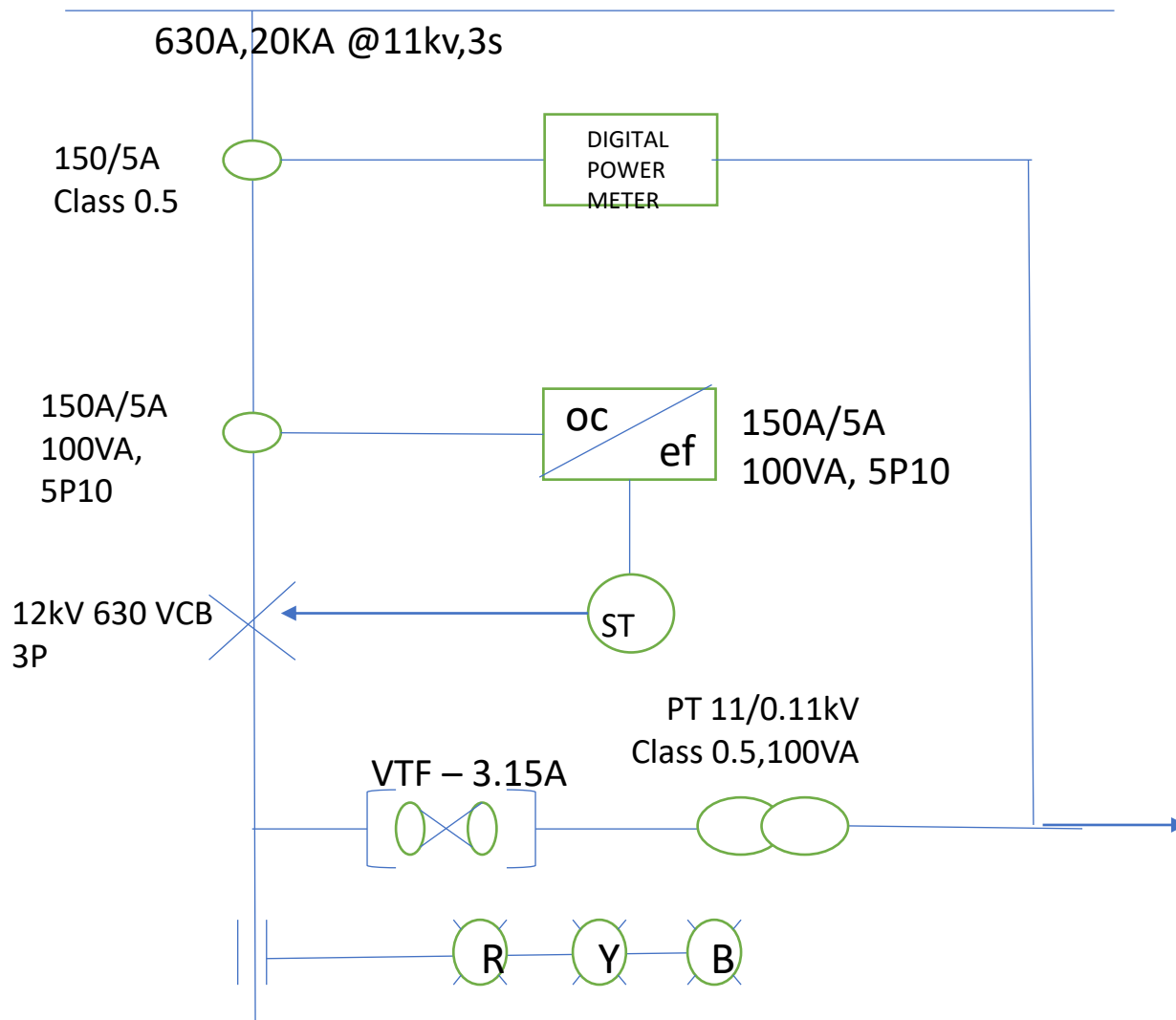
11kV METALENCLOSED
SWITCHGEAR 20kA @11kV,3S

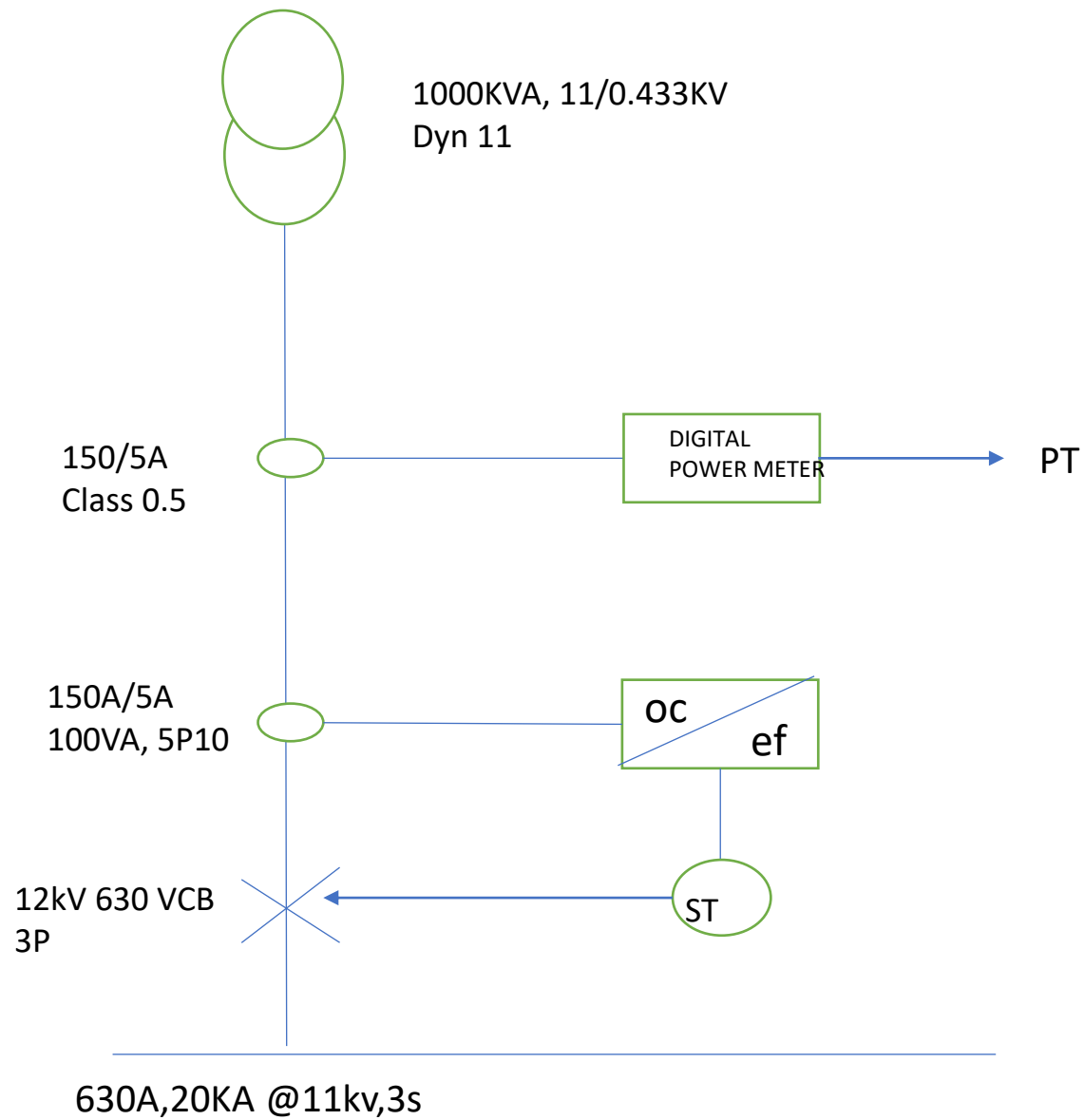


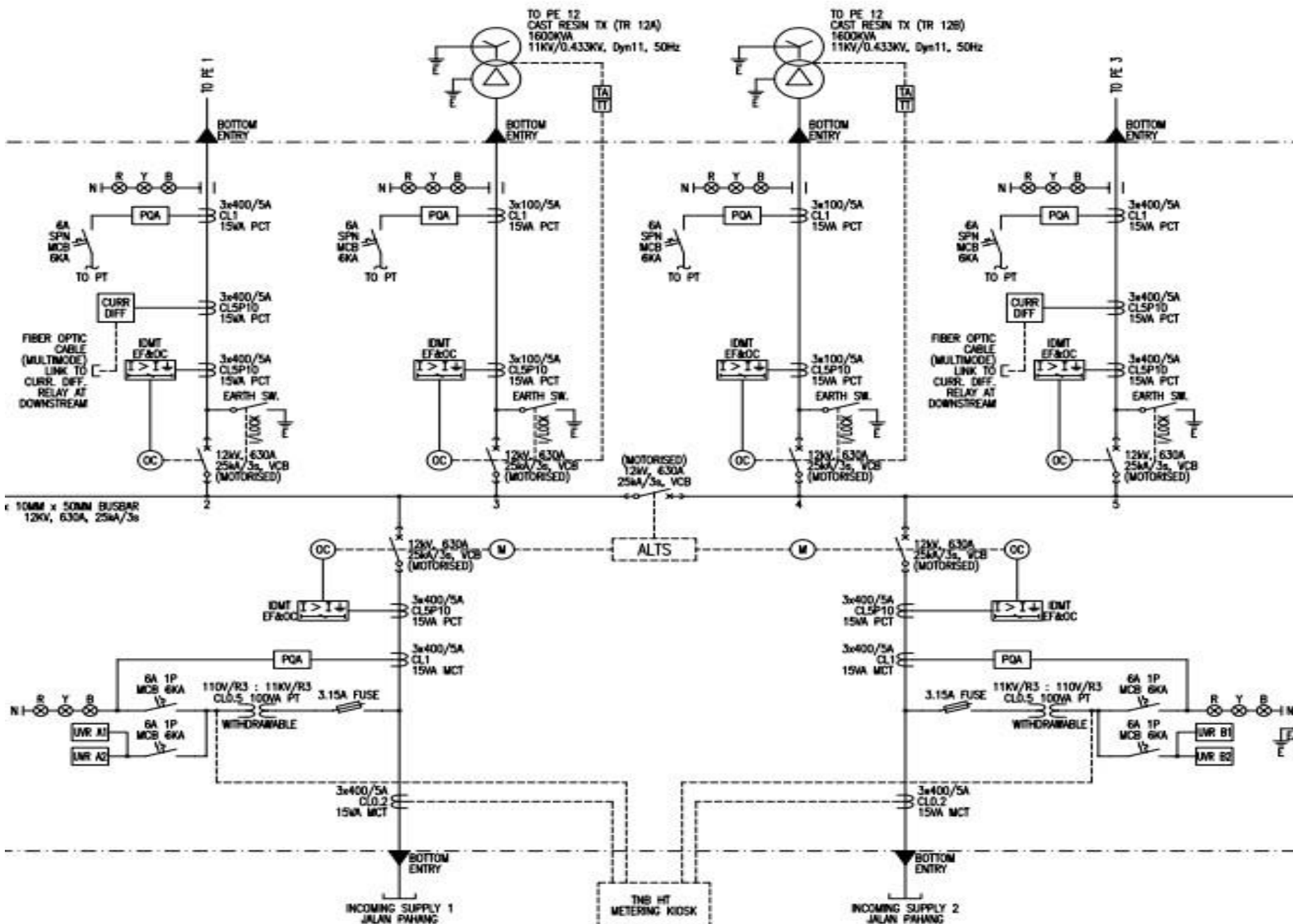
11kV METALENCLOSED SWITCHGEAR 20kA @11kV,3S

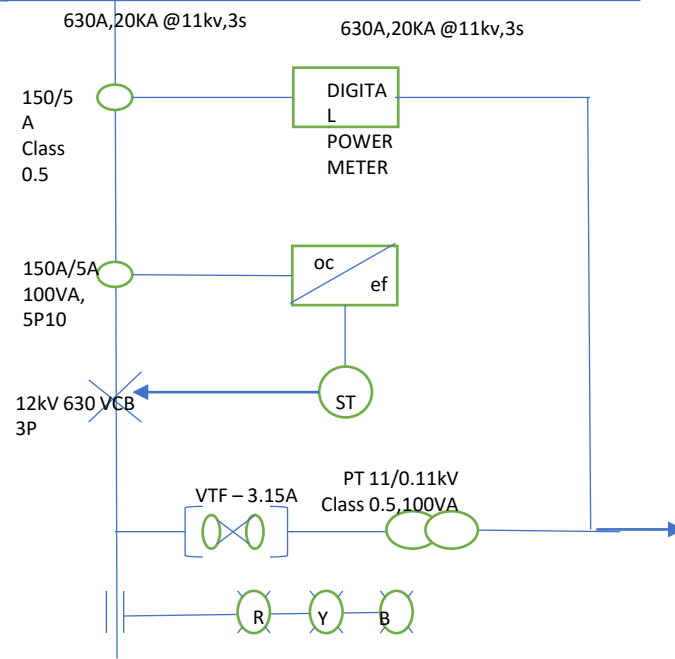
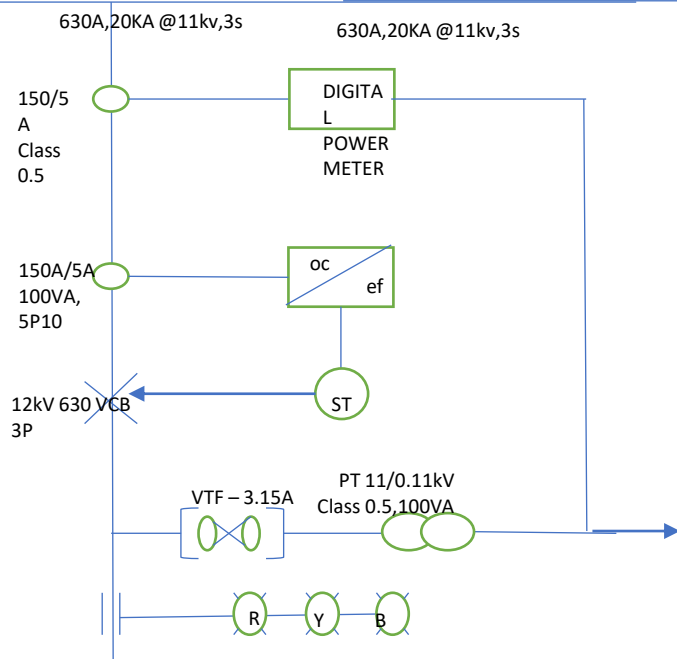
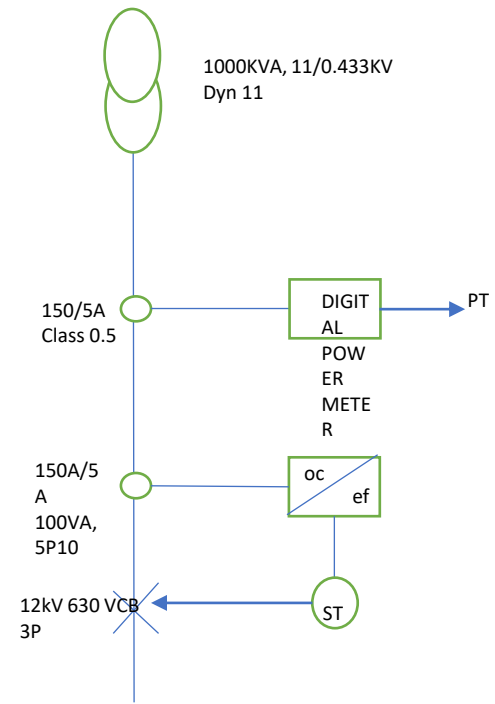
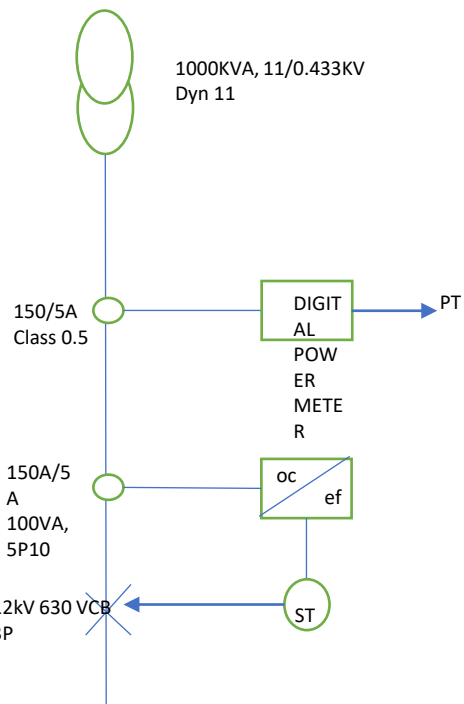


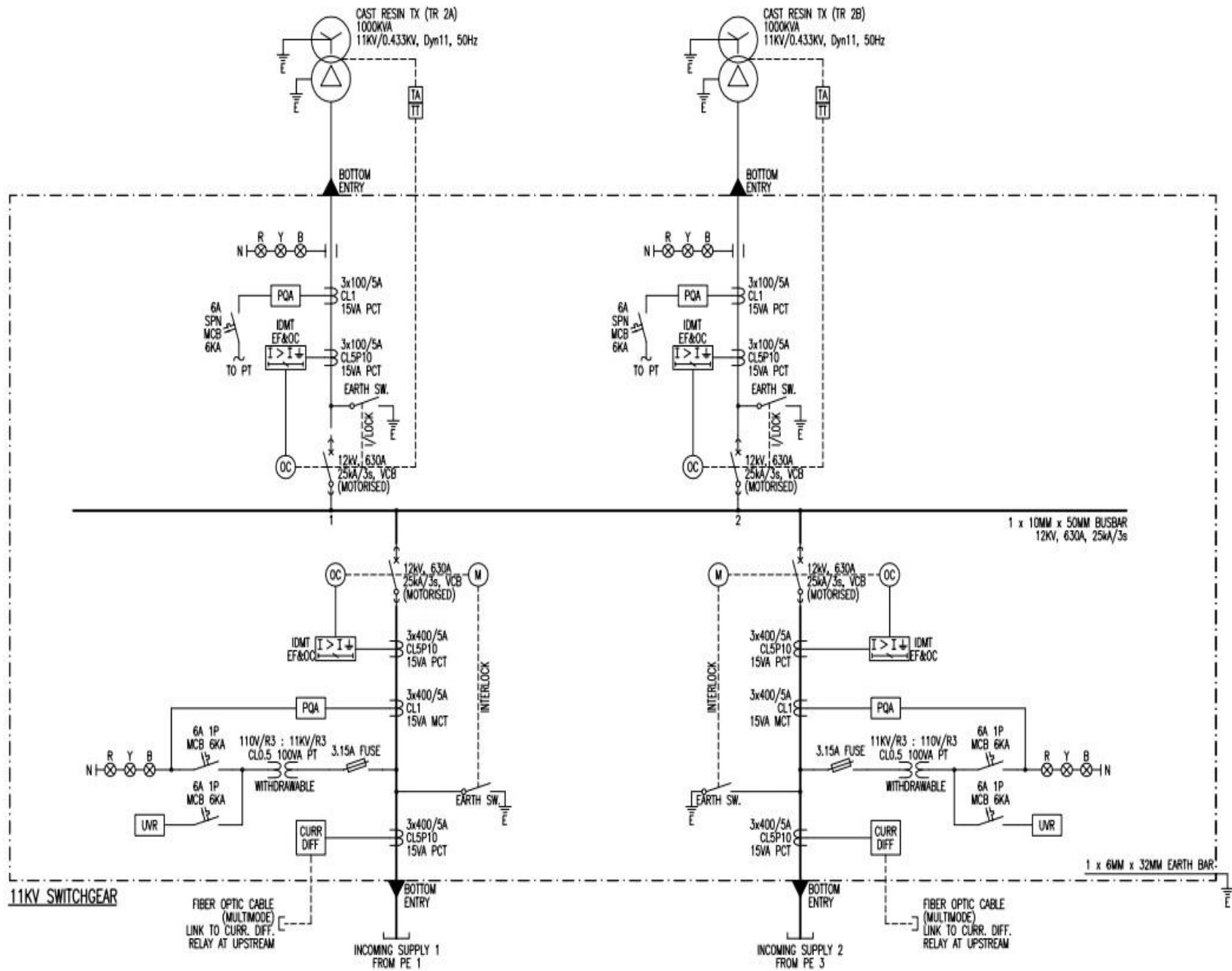


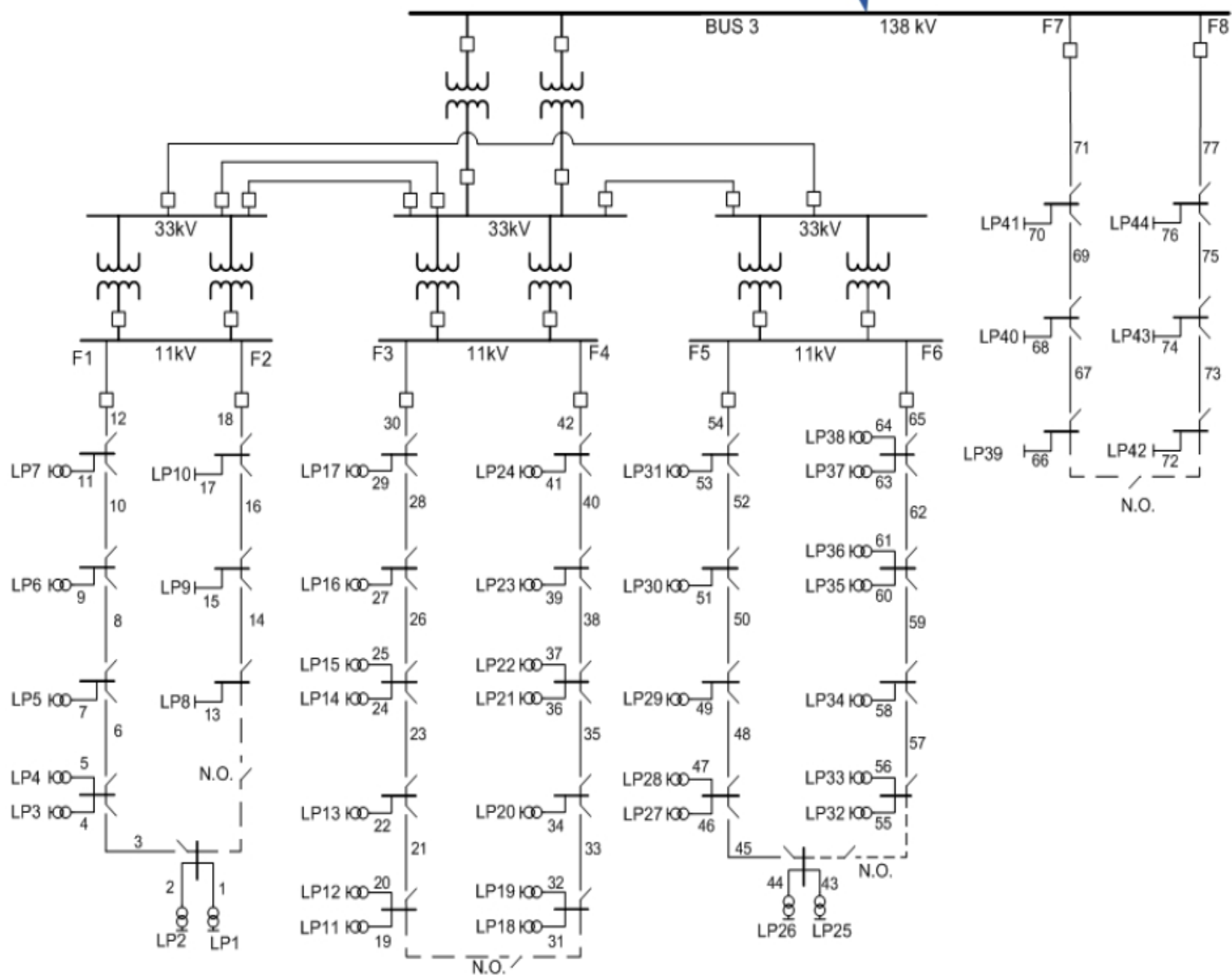












Jenis Bangunan	Jenis Load	Beban (MD KW)
Blok pentadbiran	MSB 1 (Beban Elektrik)	560KW
	MSB 2 (Beban Mekanikal)	520KW
Blok makmal berpusat	MSB 1 (Beban Elektrik)	820KW
	MSB 2 (Beban Mekanikal)	920KW
Blok Asrama	MSB Asrama Lelaki	360KW
	MSB Asrama Wanita	340KW
Kompleks Sukan	MSB	300KW
**Pembangunan Akan datang		

1. Bacaan Arus Voltan Rendah(I_{LV})

: a A

$$P_{MD} = \sqrt{3} V I_{LV} K \cos \phi$$

$$I_{LV} = P_{MD} / \sqrt{3} V K \cos \phi , V = 400$$

2. Saiz Pemutus Litar di LV (CB Size)

: b = a X 1.3 A

3. Saiz Transformer

: c KVA

$$S = \sqrt{3} V I_{LV} ,$$

$$I_{LV} = b \text{ A}, V = 400 \text{ V}$$

4. Arus Maksimum LV (I_{FL})

: d A

$$S = \sqrt{3} V I_{FL} ,$$

$$S = c \text{ kVA}, V = 400 \text{ V}$$

5. % Penggunaan Kapasiti Transformer

:.....%

$$= I_{LV} / I_{FL}$$

$$= a/d * 100$$

6. Arus Medium voltage

:.....a

$$P_{MD} = \sqrt{3} V I_{MD} K \cos \phi$$

$$I_{MD} = P_{MD} / \sqrt{3} V K \cos \phi$$

$$V = 11 \text{ kV}$$

$$P_{MD} = 560\text{kW}$$

1. Bacaan Arus Voltan Rendah(I_{LV})

: **a** A

$$P_{MD} = \sqrt{3} V I_{LV} \cos\phi$$

$$I_{LV} = P_{MD} / \sqrt{3} V \cos\phi , V = 400$$

2. Saiz Pemutus Litar di LV (CB Size)

: **b = a X 1.3** A

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: **d** A

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$$S = c \text{ kVA}, V = 400\text{V}$$

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:.....%

$$= I_{LV} / I_{FL}$$

$$\% = I_{LV} / I_{FL}$$

$$= a/d * 100$$

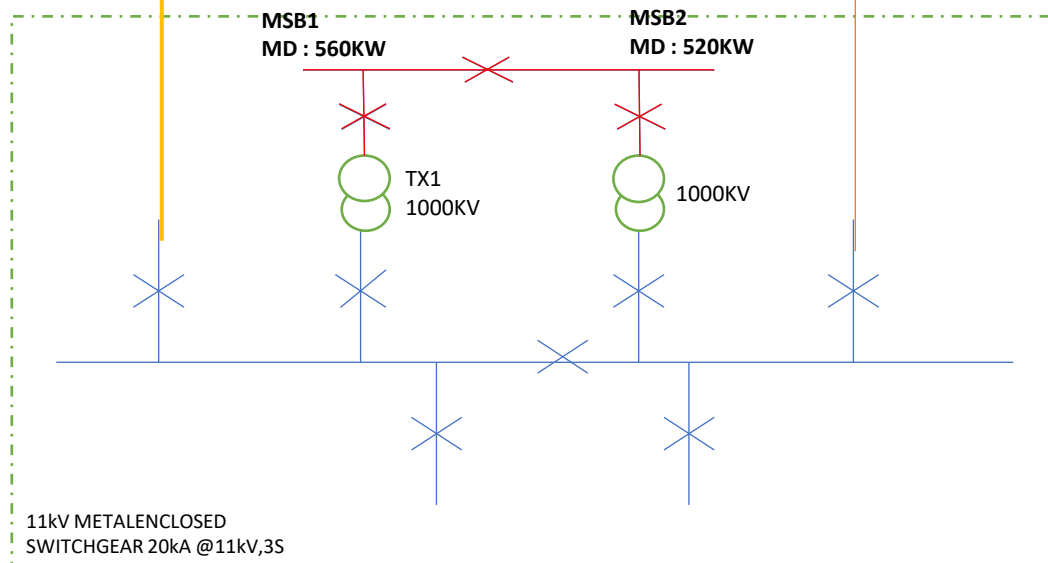
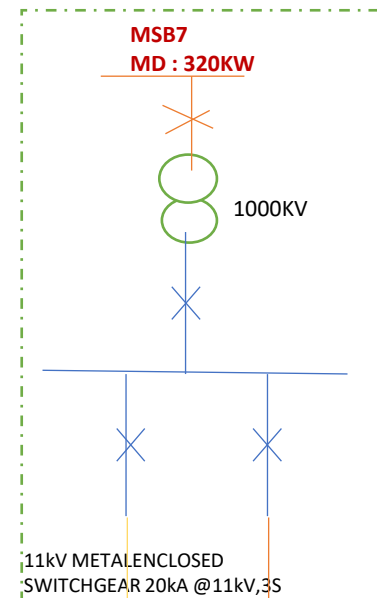
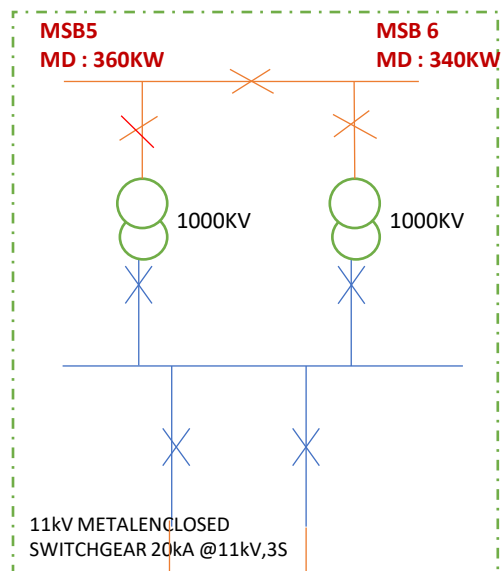
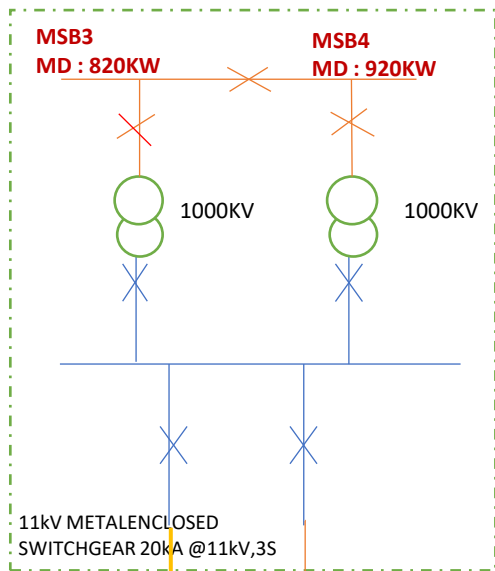
6. Arus Medium voltage

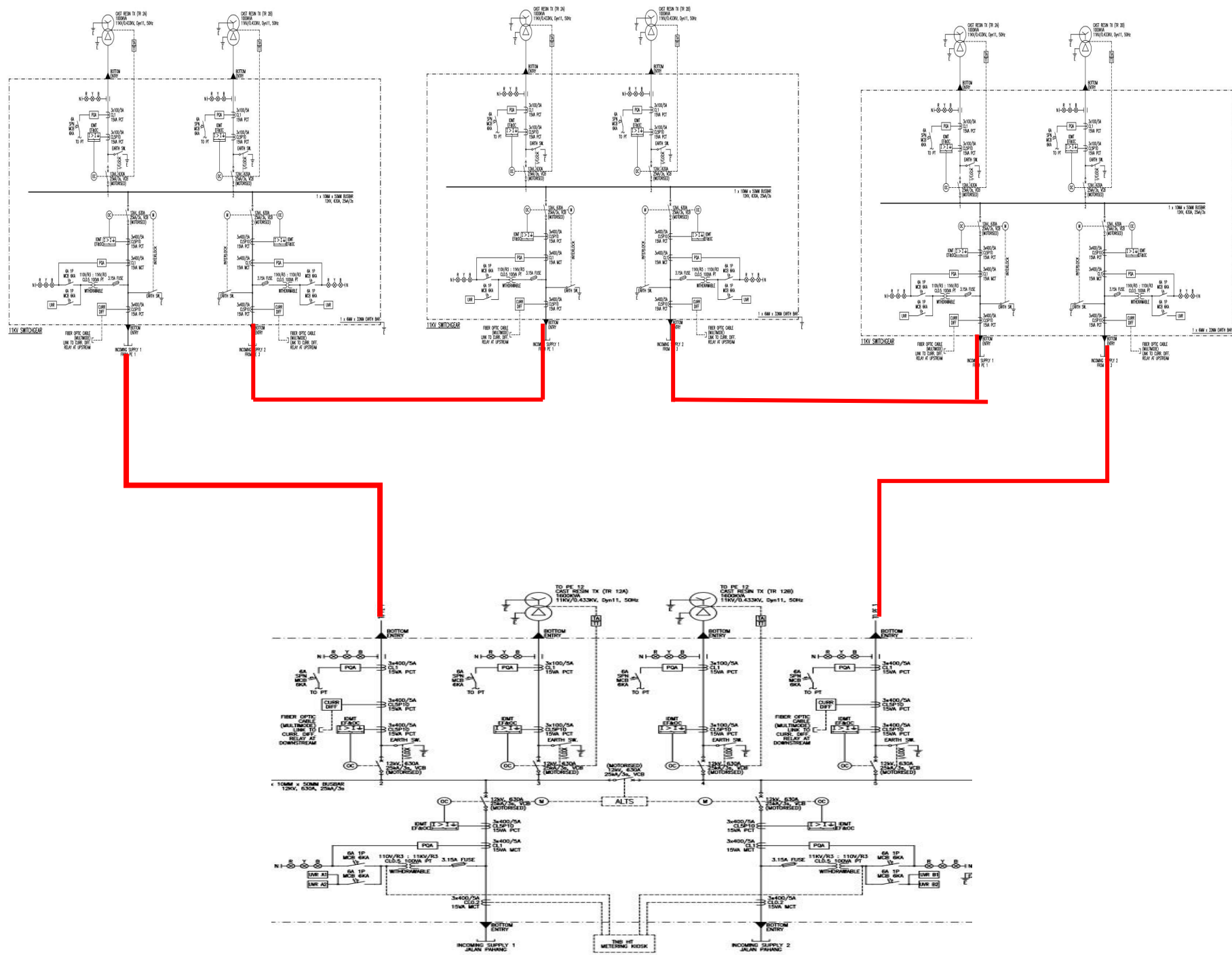
:.....a

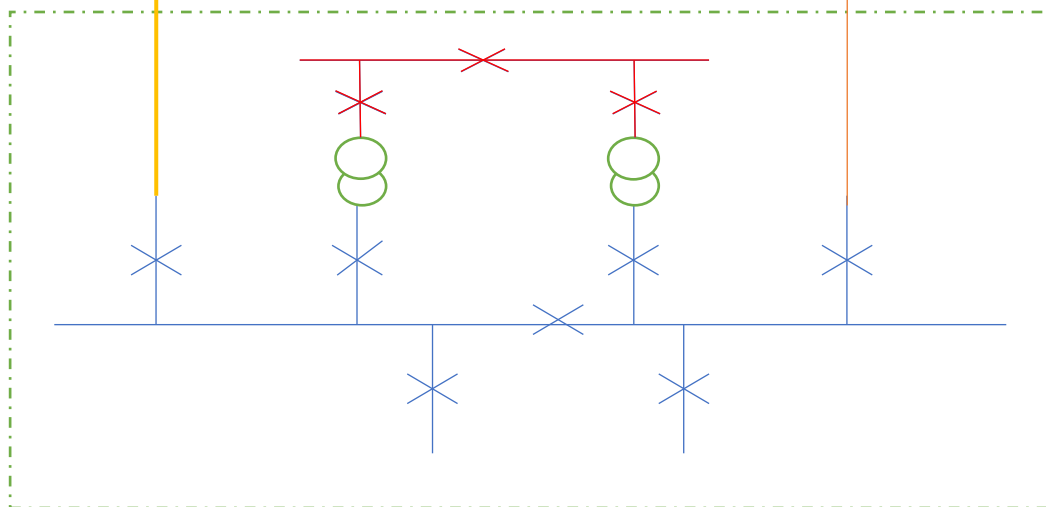
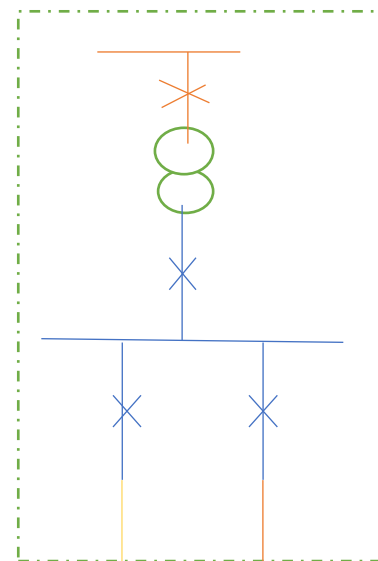
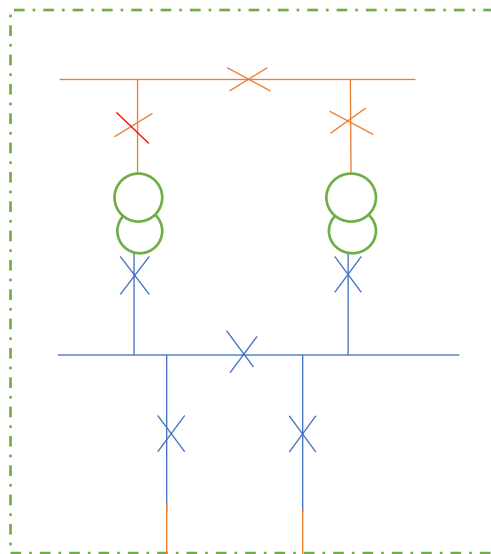
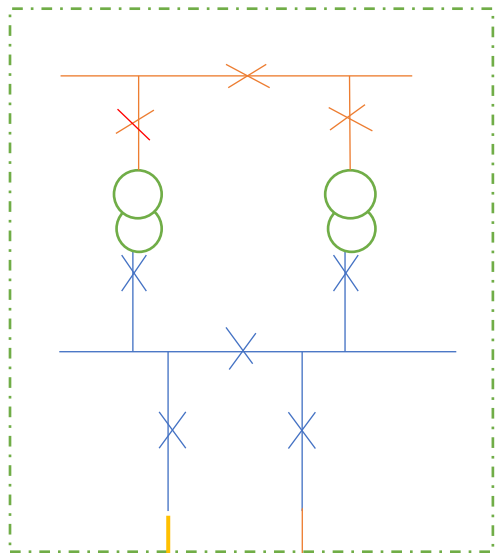
$$P_{MD} = \sqrt{3} V I_{MD} \cos \phi$$

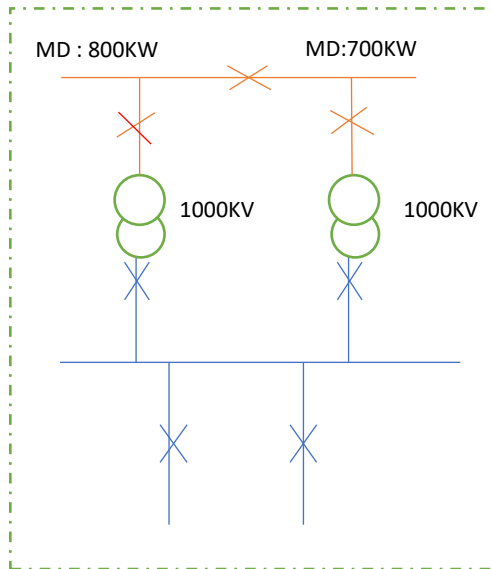
$$I_{MD} = P_{MD} / \sqrt{3} V \cos \phi$$

$$V = 11 \text{ kV}$$

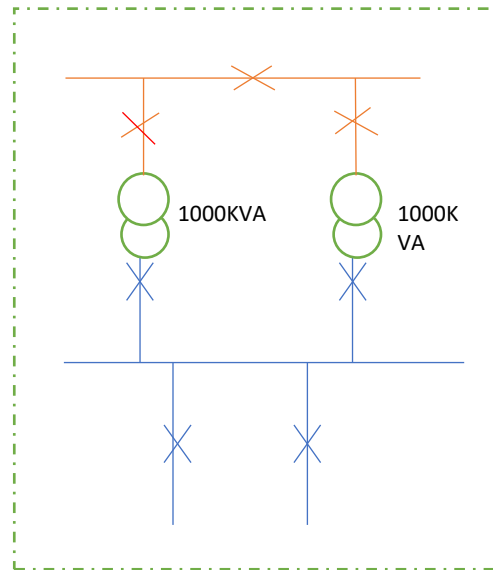




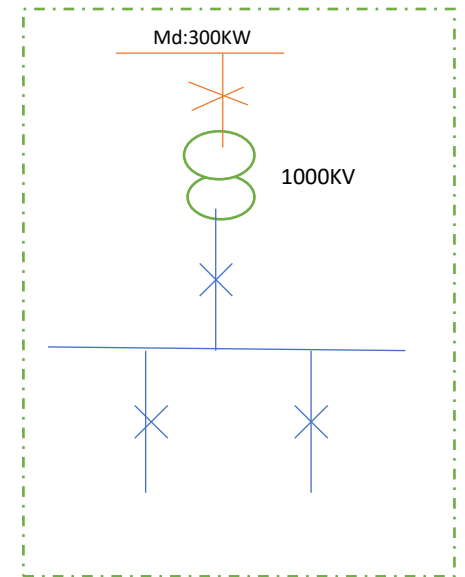




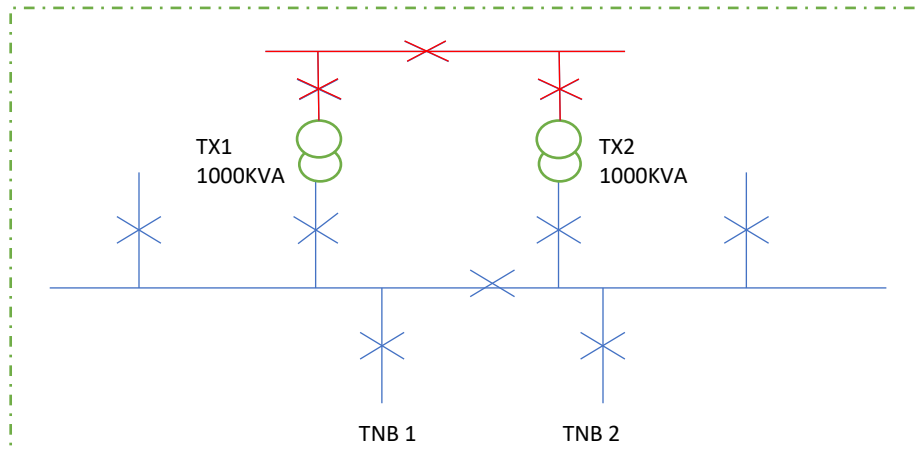
11kV METALENCLOSED
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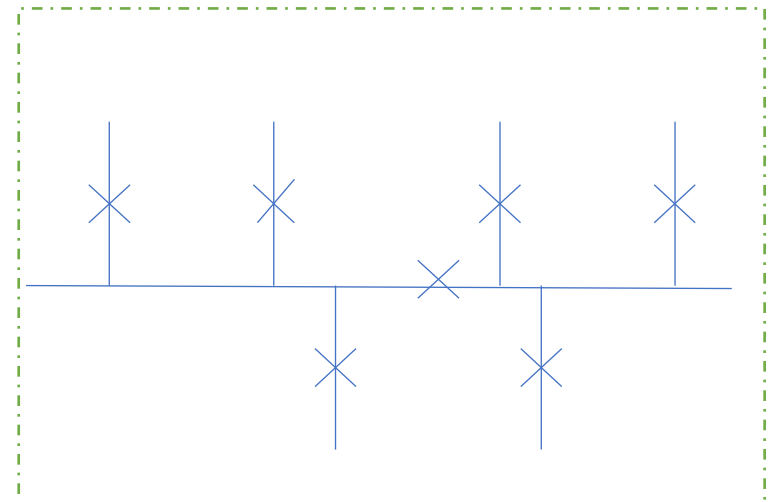
11kV METALENCLOSED
SWITCHGEAR 20kA @11kV,3S



11kV METALENCLOSED
SWITCHGEAR 20kA @11kV,3S



11kV METALENCLOSED SWITCHGEAR 20kA @11kV,3S



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SWITCHGEAR 20kA @11kV,3S

