

No.	AMENDMENTS		DATE
1	DRAWING NUMBER CHANGED	PT.M	10/11/2019
2	DRAWING REVIEWED	PT.M	05/05/2021
3	DRAWING REVIEWED	PT.M	31/01/2022
4	XXXXXXXXXX	X. XX	00/00/00
5	XXXXXXXXXX	X. XX	00/00/00
6	XXXXXXXXXX	X. XX	00/00/00

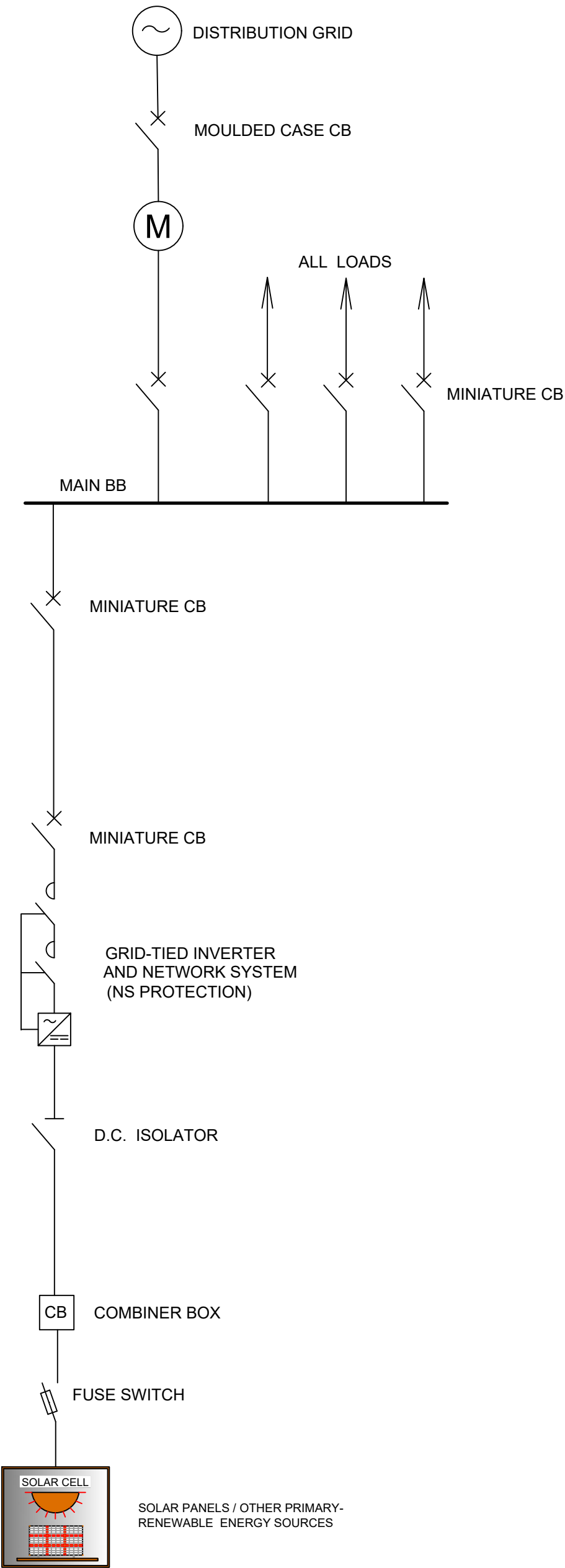


ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

EMBEDDED GENERATION (SSEG) : LEGEND

SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	1



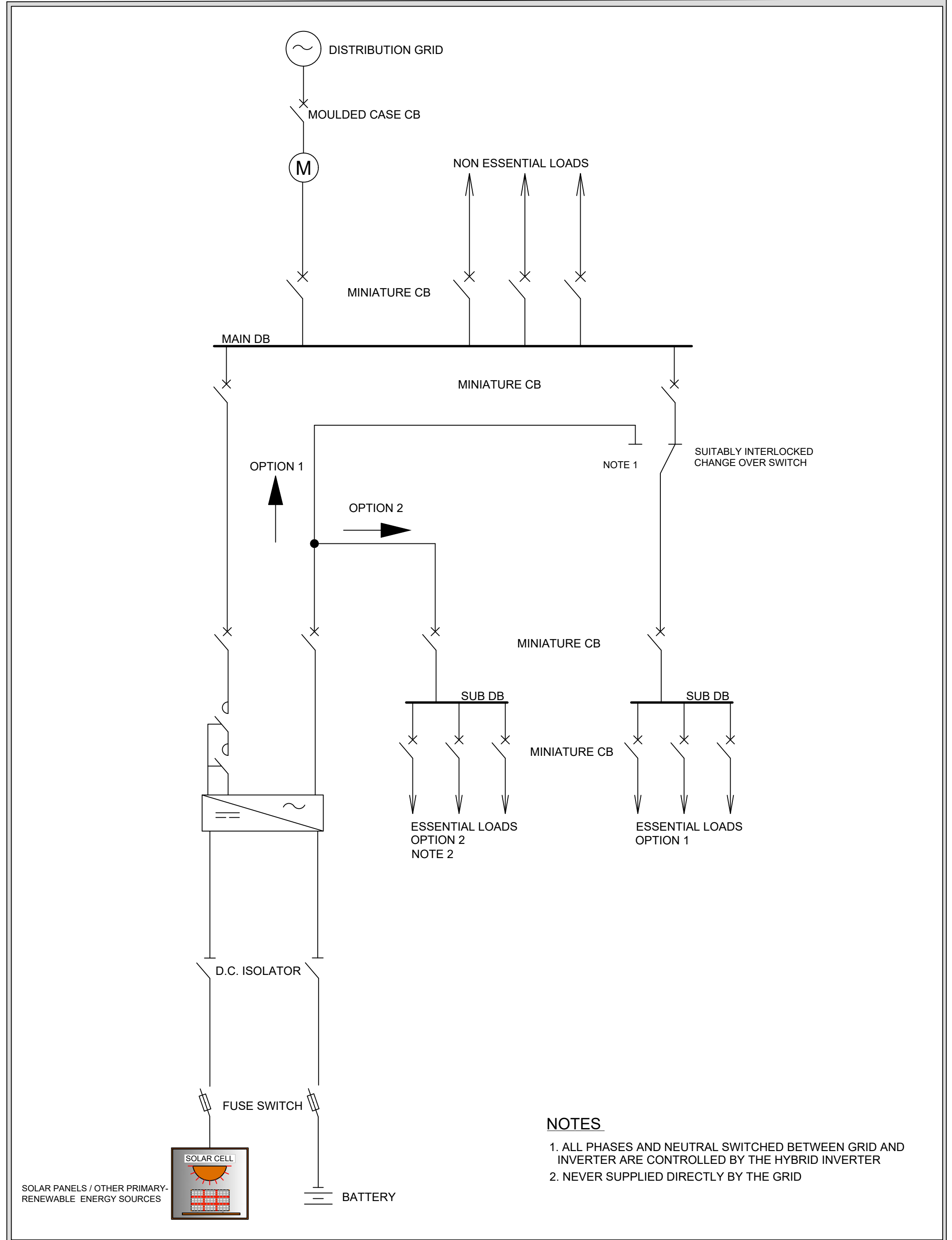
No.	AMENDMENTS	DATE
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2	DRAWING REVIEWED	PT.M 05/05/2021
3	DRAWING REVIEWED	PT.M 31/01/2022
4	XXXXXXXXXX	X.XX 00/00/00
5	XXXXXXXXXX	X.XX 00/00/00
6	XXXXXXXXXX	X.XX 00/00/00



ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

TYPICAL SSEG : GRID-TIED WITH NO STORAGE		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	2



NOTES

- 1. ALL PHASES AND NEUTRAL SWITCHED BETWEEN GRID AND INVERTER ARE CONTROLLED BY THE HYBRID INVERTER
- 2. NEVER SUPPLIED DIRECTLY BY THE GRID

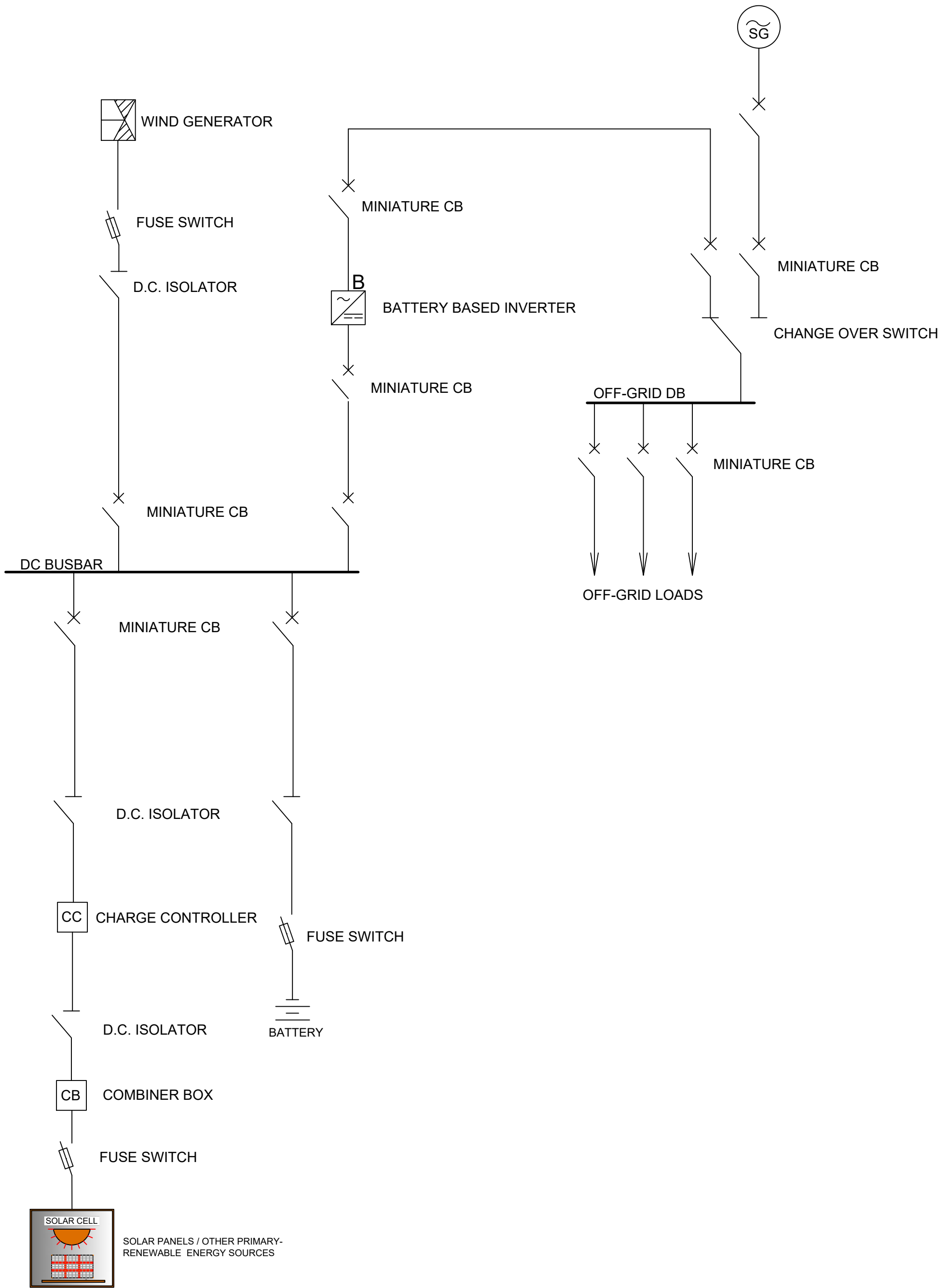
No.	AMENDMENTS	DATE
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2	DRAWING REVIEWED	PT.M 05/05/2021
3	DRAWING REVIEWED	PT.M 31/01/2022
4	XXXXXXXXXX	X.XX 00/00/00
5	XXXXXXXXXX	X.XX 00/00/00
6	XXXXXXXXXX	X.XX 00/00/00



ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

TYPICAL SSEG : GRID-TIED WITH STORAGE		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	3



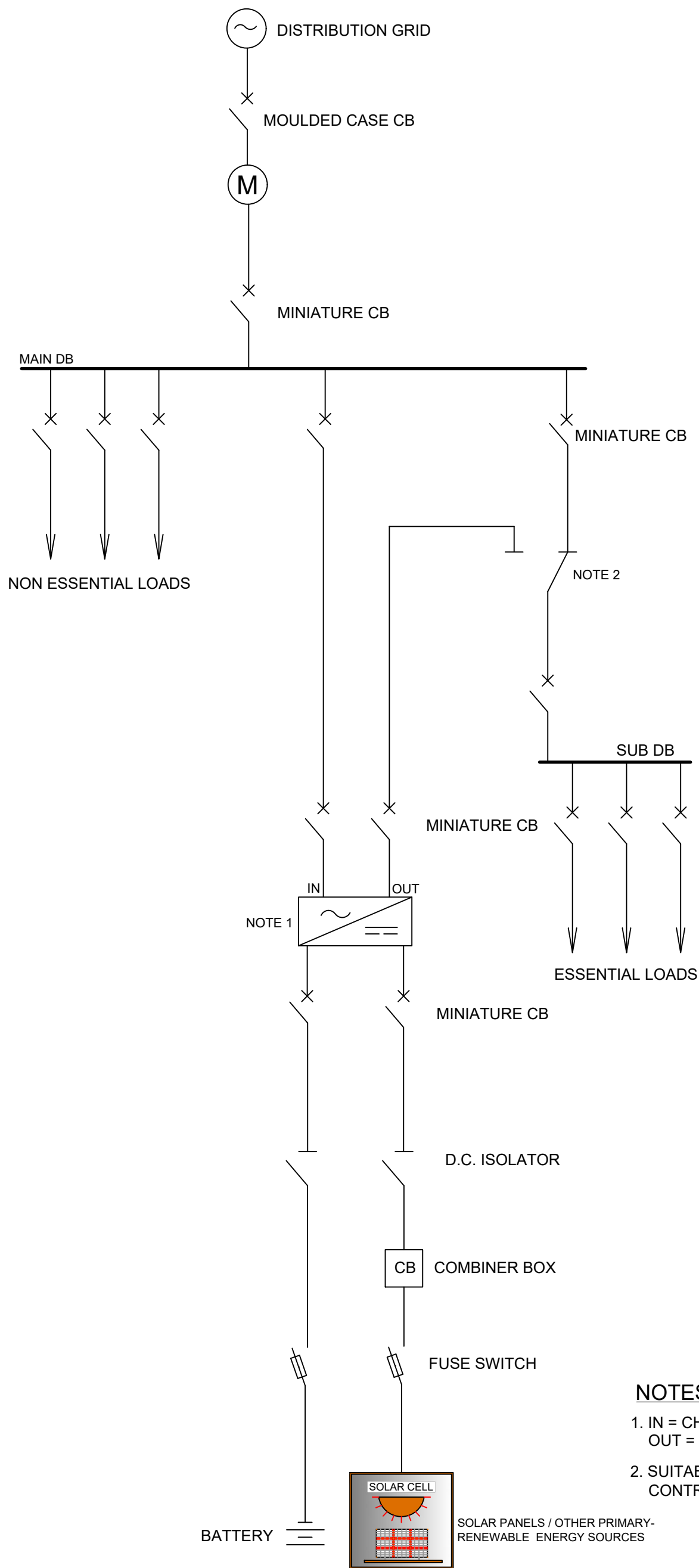
No.	AMENDMENTS	DATE
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2	DRAWING REVIEWED	PT.M 05/05/2021
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4	XXXXXXXXXX	X. XX 00/00/00
5	XXXXXXXXXX	X. XX 00/00/00
6	XXXXXXXXXX	X. XX 00/00/00



ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

TYPICAL SSEG : OFF GRID		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	4



NOTES

1. IN = CHARGER / RECTIFIER MODE
OUT = INVERTER MODE
2. SUITABLE INTERLOCKED CHANGE -OVER SWITCH
CONTROLLED BY PASSIVE STANDBY UPS

No.	AMENDMENTS	DATE
1	DRAWING NUMBER CHANGED	PT.M 10/11/2019
2	DRAWING REVIEWED	PT.M 05/05/2021
3	DRAWING REVIEWED	PT.M 28/10/2021
4	DRAWING REVIEWED	PT.M 31/01/2022
5	XXXXXXXXXX	X.XX 00/00/00
6	XXXXXXXXXX	X.XX 00/00/00



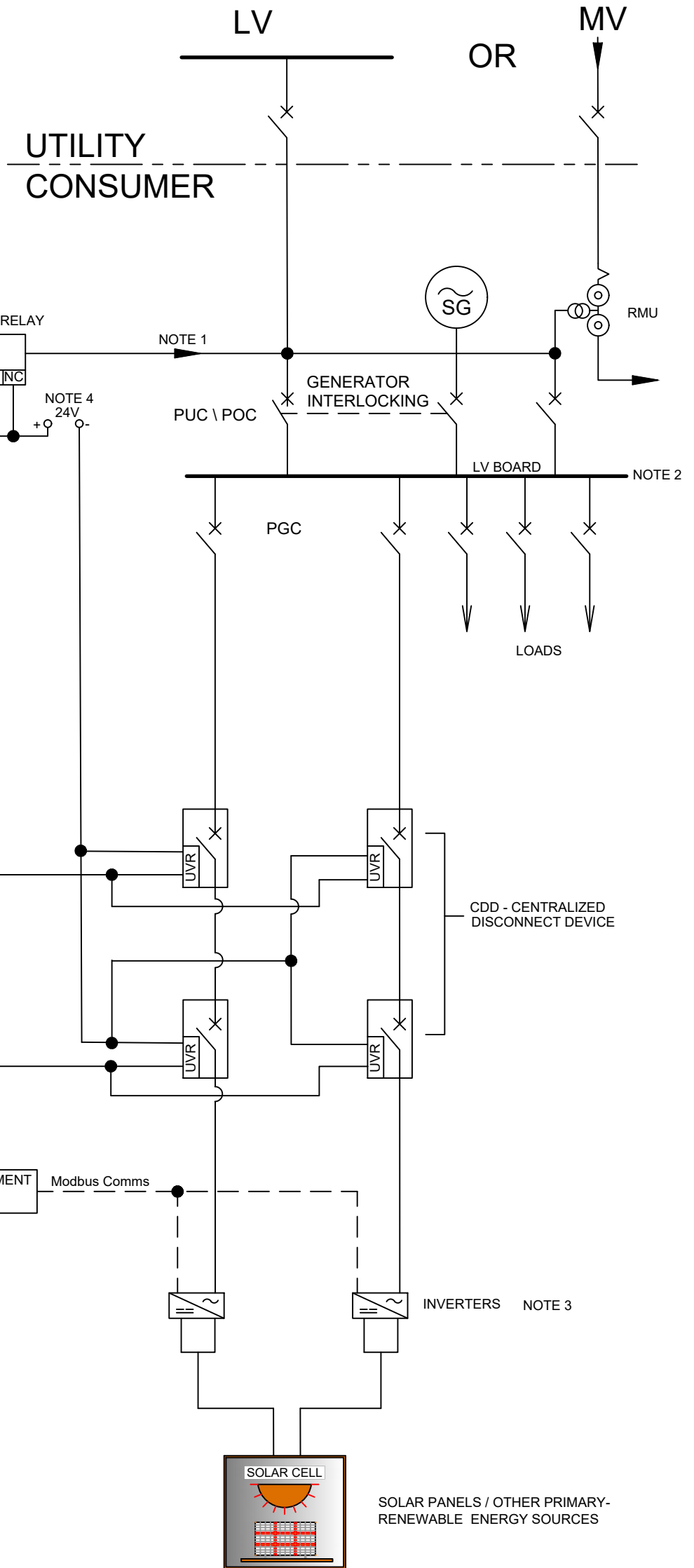
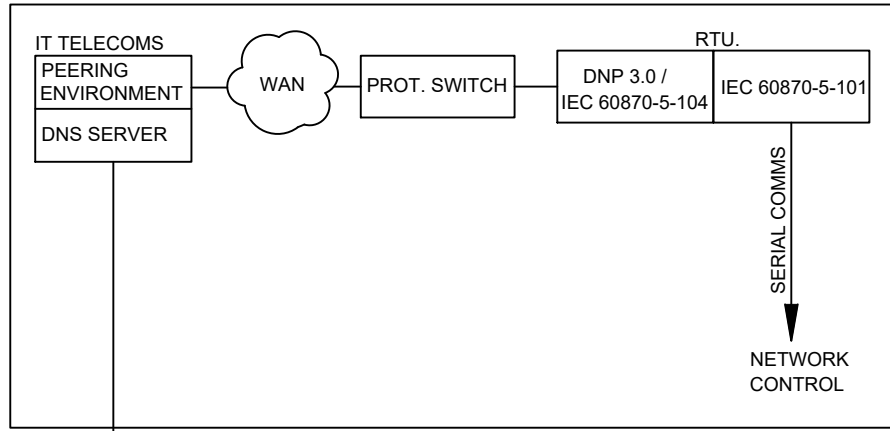
ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

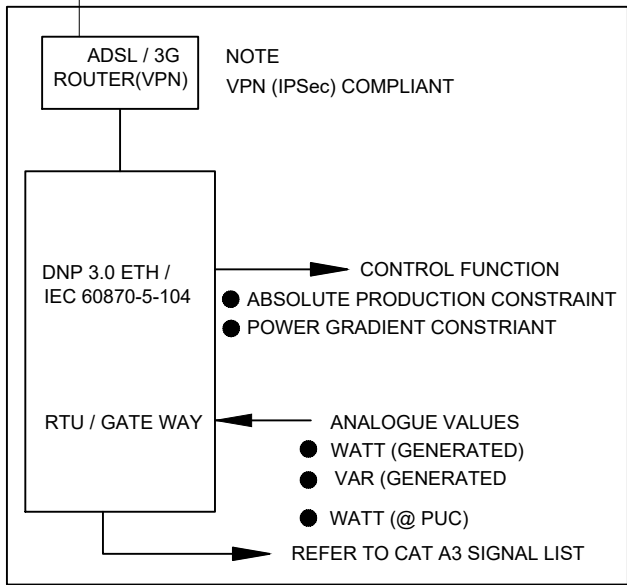
TYPICAL SSEG : PASSIVE STANDBY UPS UTILIZED AS STANDBY HYBRID SSEG (SHOWN IN CHARGER/RECTIFIER MODE)		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	5

COCT

NOTE : SCADA REQUIRED FOR SSEG
APPLICATION FROM 100-999kVA



SSEG CUSTOMER



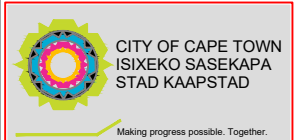
ABBREVIATIONS

VPN - VIRTUAL PRIVATE NETWORK
UVR - UNDER VOLTAGE RELEASE
RTU - REMOTE TERMINAL UNIT

NOTES

- VOLTAGE SENSING TAKING CLOSEST TO THE PUC AND UPSTREAM OF ANY STANDBY SUPPLY GENERATOR CHANGE-OVER SWITCH .
- COULD BE MANY DBs SUPPLIED INDIVIDUALLY FROM PUC OR FROM MV RING FED TRANSFORMERS CONNECTED TO THE PUC
- COULD BE DECENTRALIZED LOCATIONS .
- APPROPRIATE Vdc, ELSE BACK-UP AC .

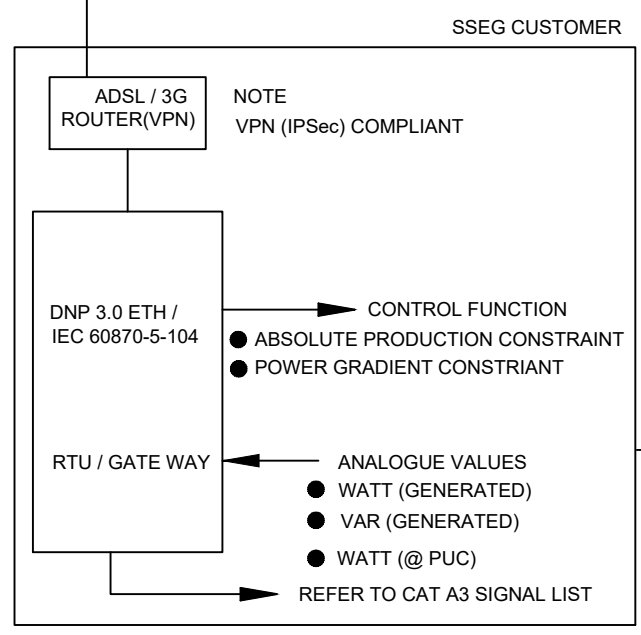
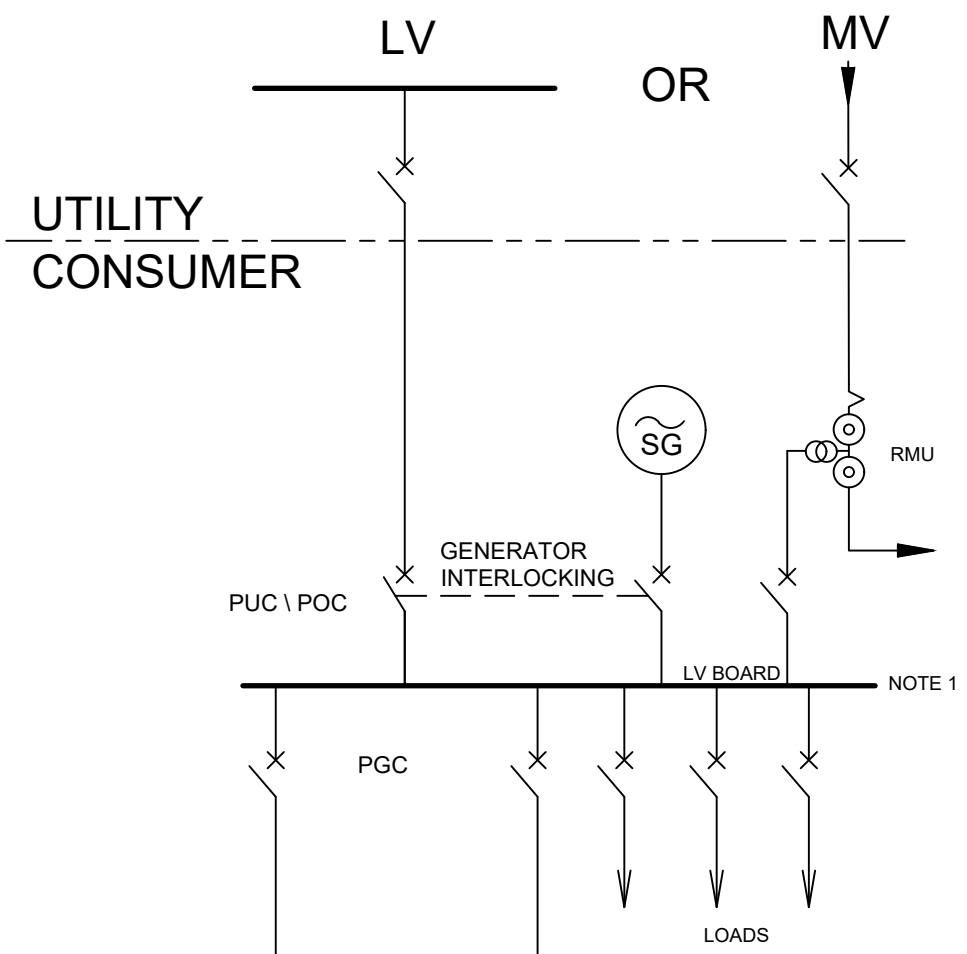
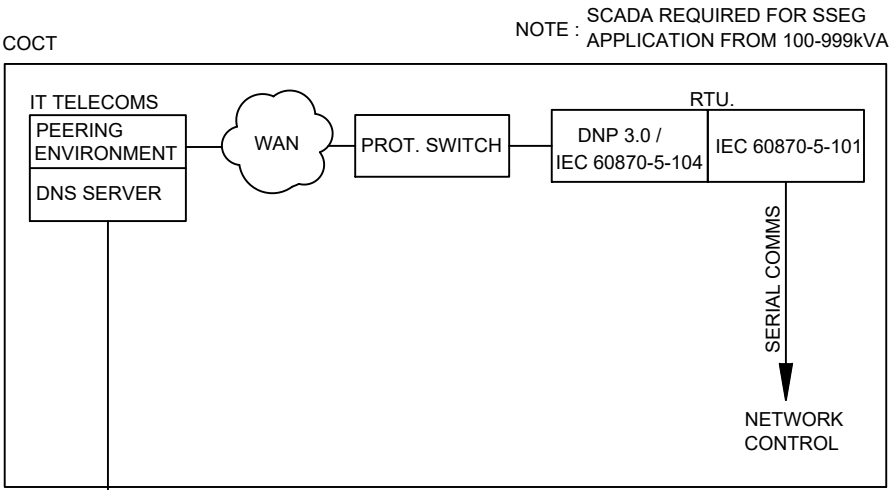
No.	AMENDMENTS	DATE
1	DRAWING NUMBER CHANGED	PT.M 10/11/2019
2	RING MAIN UNIT ADDED	PT.M 10/02/2021
3	DRAWING REVIEWED	PT.M 05/05/2021
4	XXXXXXXXXX	X.XX 00/00/00
5	XXXXXXXXXX	X.XX 00/00/00
6	XXXXXXXXXX	X.XX 00/00/00



ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

CATEGORY A2 & A3 - LV OR MV CONNECTED WITH CDD		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	6

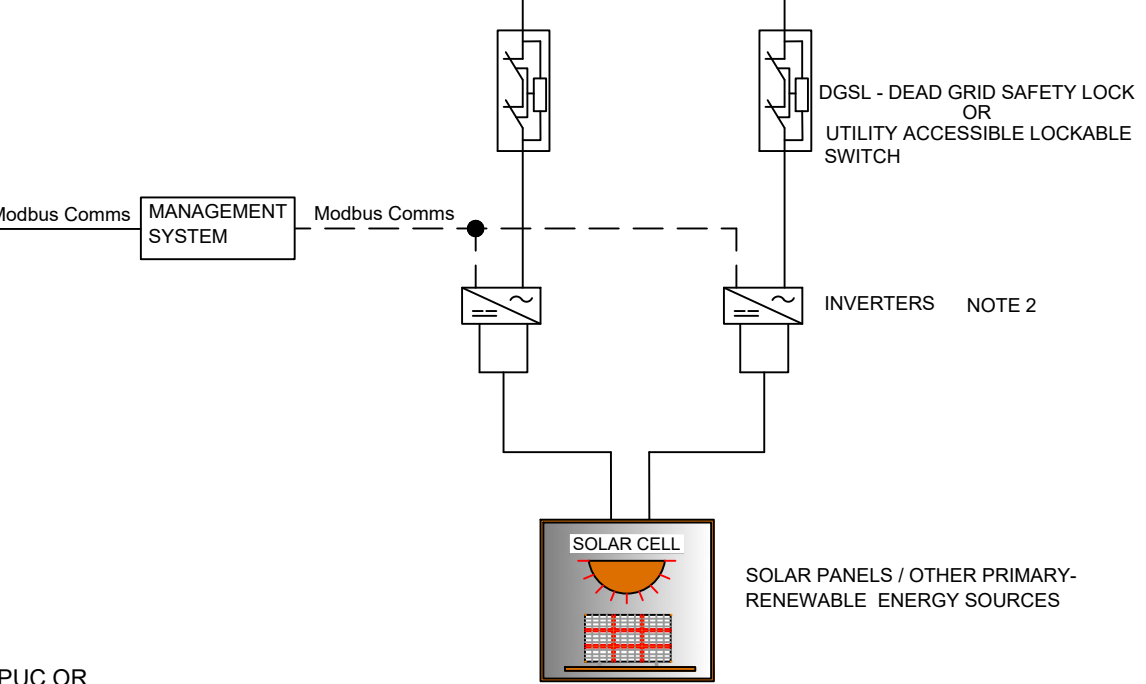


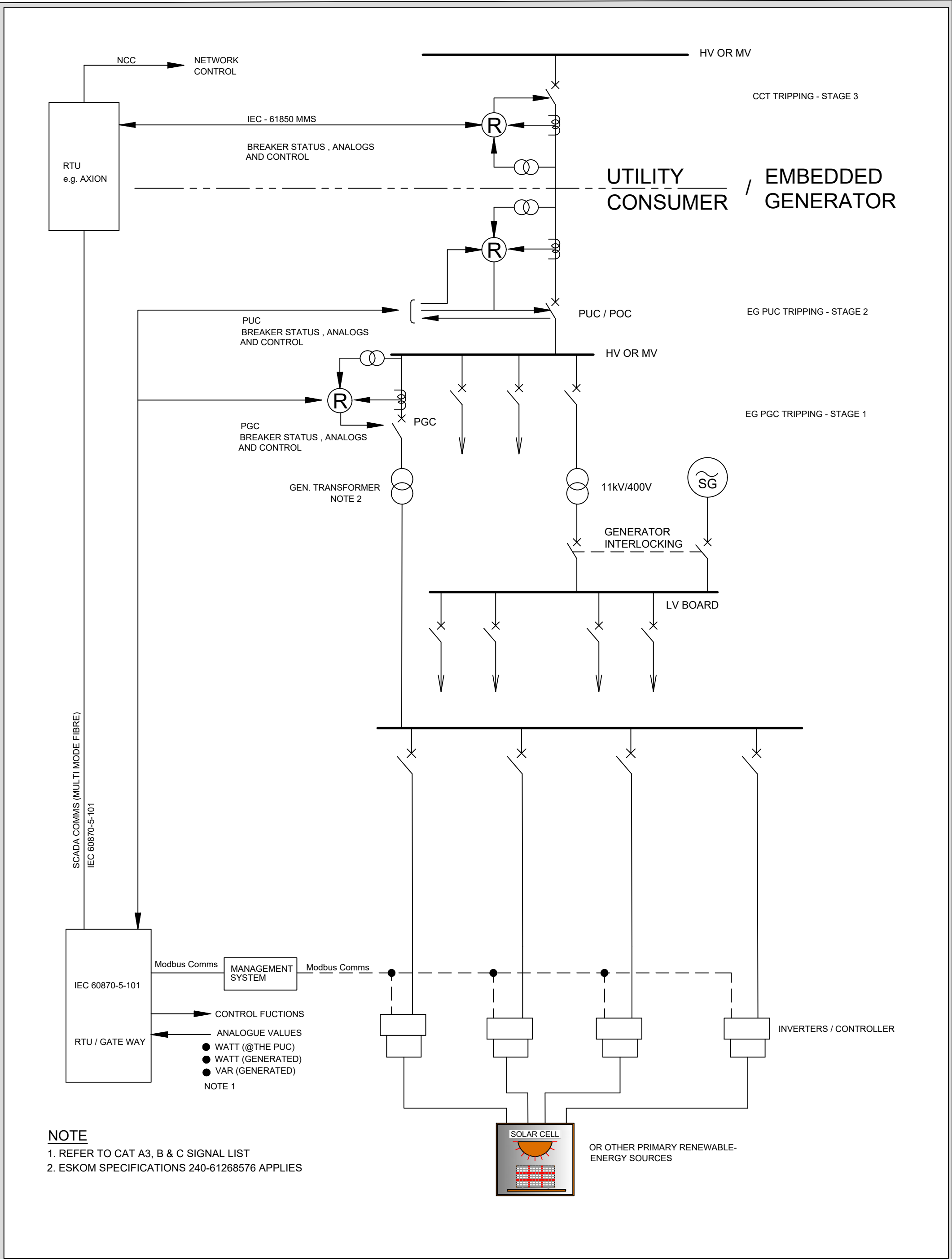
ABBREVIATIONS

VPN - VIRTUAL PRIVATE NETWORK
RTU - REMOTE TERMINAL UNIT

NOTES

1. COULD BE MANY DBs SUPPLIED INDIVIDUALLY FROM THE PUC OR FROM MV RING FED TRANSFORMERS CONNECTED TO THE PUC
2. COULD BE DECENTRALIZED LOCATIONS .





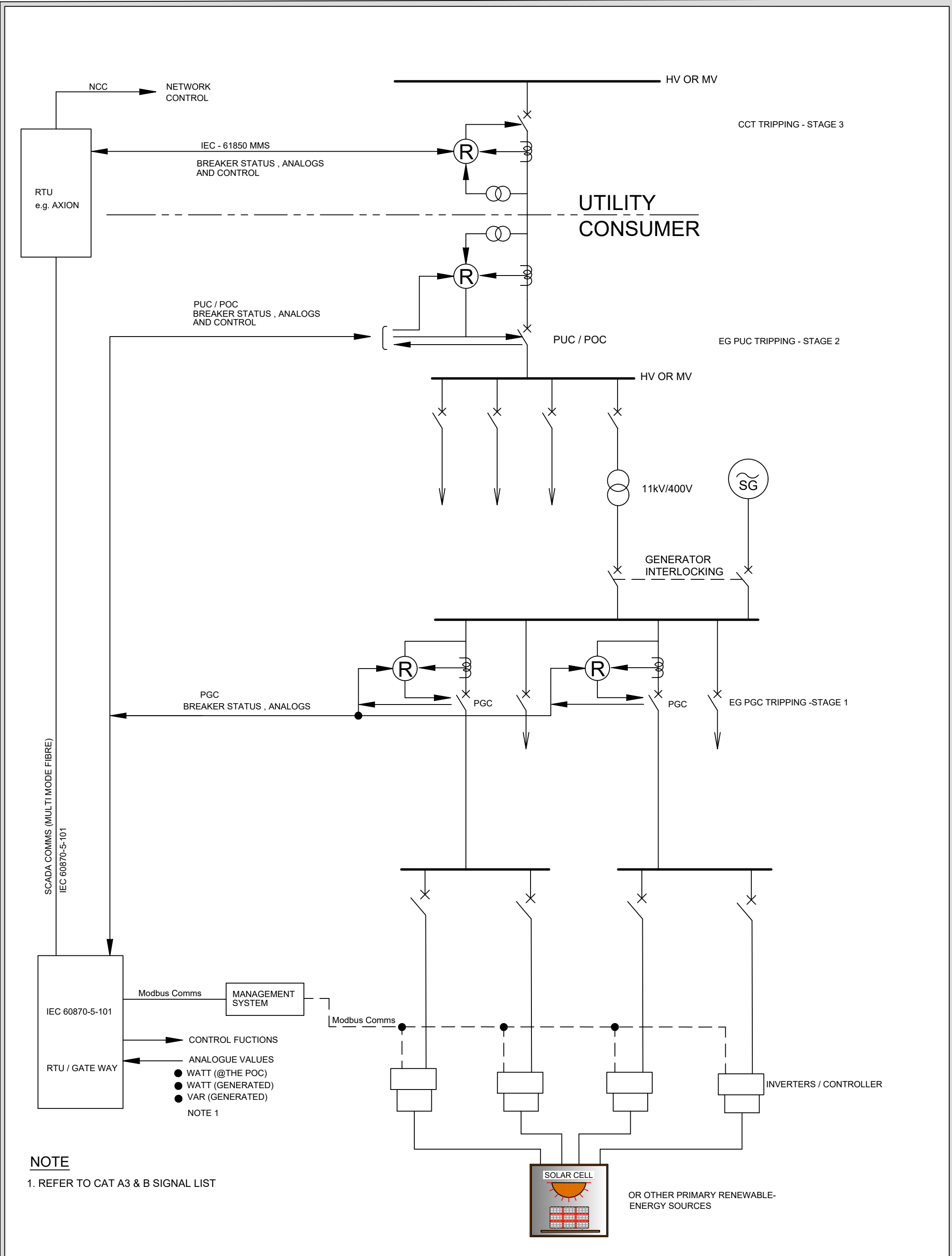
No.	AMENDMENTS		DATE
1	DRAWING NUMBER CHANGED	PT.M	10/11/2020
2	DRAWING REVIEWED	PT.M	04/02/2021
3	DRAWING REVIEWED	PT.M	12/02/2021
4	DRAWING REVIEWED	PT.M	24/01/2022
5	XXXXXXXXXX	X.XX	00/00/00
6	XXXXXXXXXX	X.XX	00/00/00



ENERGY GRID DIAGRAMS

COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

MEDIUM AND HIGH VOLTAGE CONNECTION		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	8



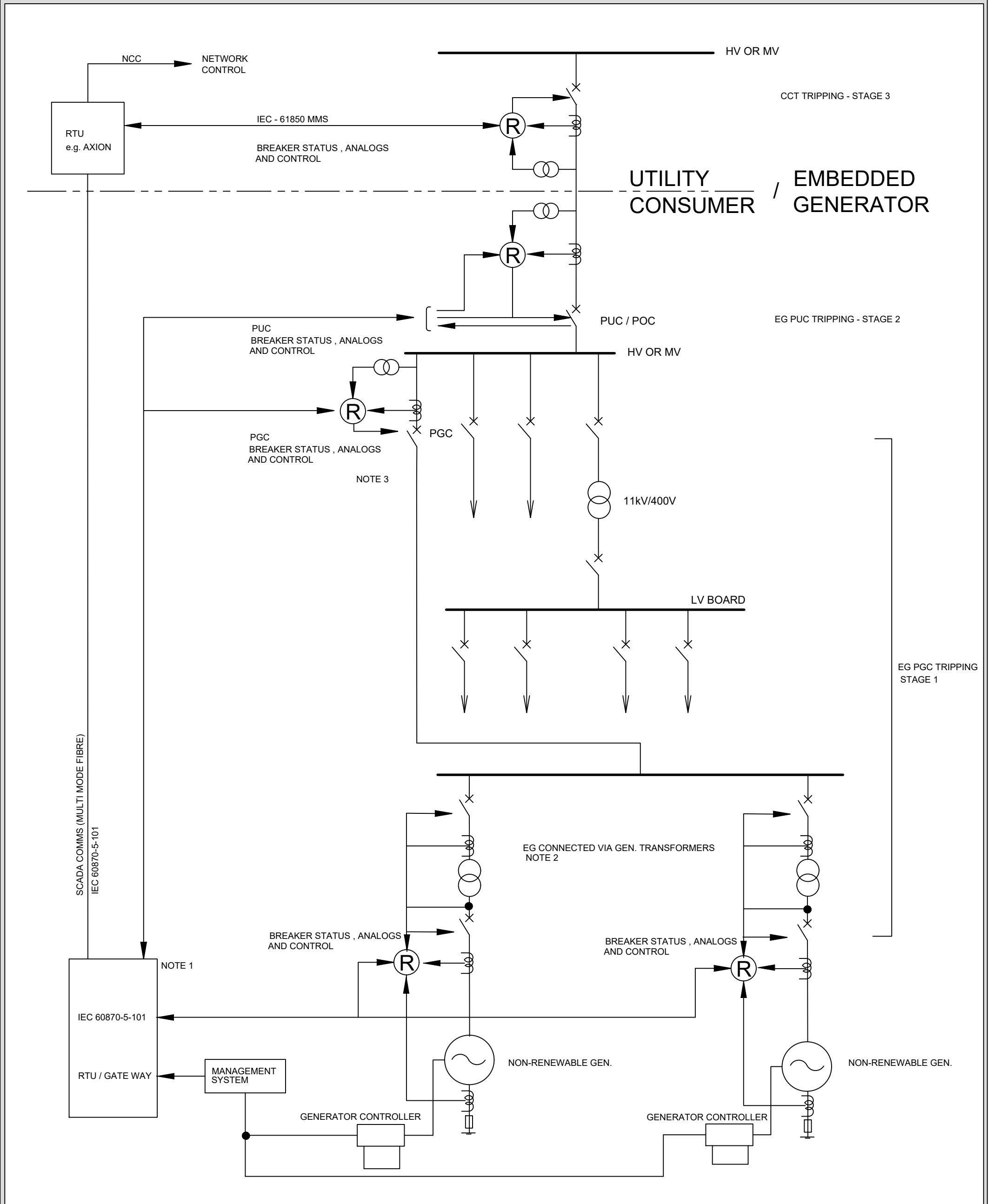
No.	AMENDMENTS	DATE
1	DRAWING NUMBER CHANGED	PT.M 10/11/2019
2	DRAWING REVIEWED	PT.M 05/02/2021
3	DRAWING REVIEWED	PT.M 12/02/2021
4	DRAWING REVIEWED	PT.M 24/01/2022
5	XXXXXXXXXX	X.XX 00/00/00
6	XXXXXXXXXX	X.XX 00/00/00



ENERGY GRID DIAGRAMS

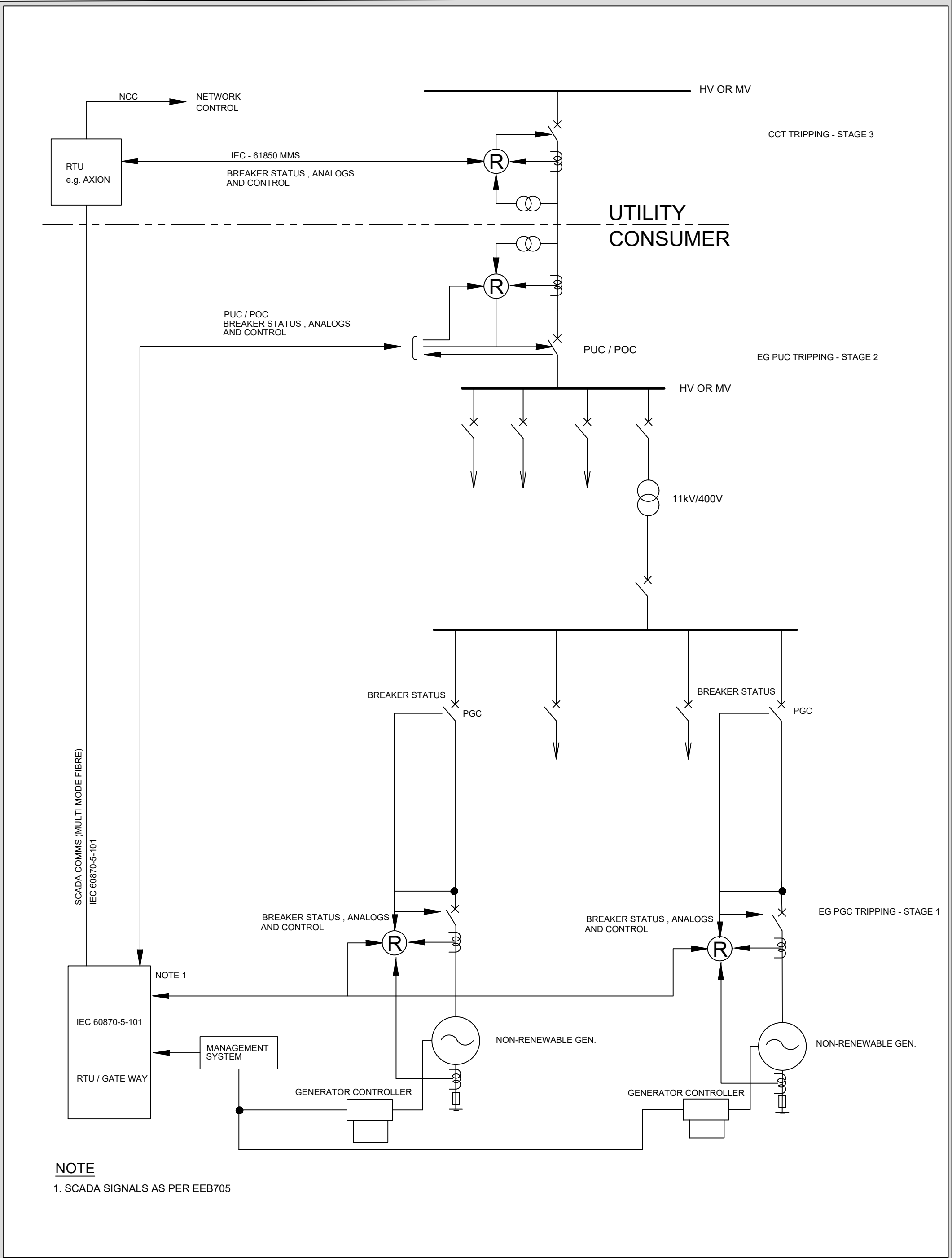
COMPILED:	PT MOTEBU
CHECKED:	R. DE KOCK
APPROVED:	A VAN ZYL

CATEGORY A3 & B - HV OR MV CONNECTION		
SHEET SIZE	DRAWING No.	SHEET
A3	SK5276	9



NOTE

- 1. SCADA SIGNALS AS PER EEB705
- 2. ESKOM SPECIFICATION 240-61268576 APPLIES
- 3. PGC TO BE SINGLE OR MULTIPLE GENERATORS, OR GENERATORS TO MULTIPLE PGC CONNECTIONS .



NOTE

1. SCADA SIGNALS AS PER EEB705