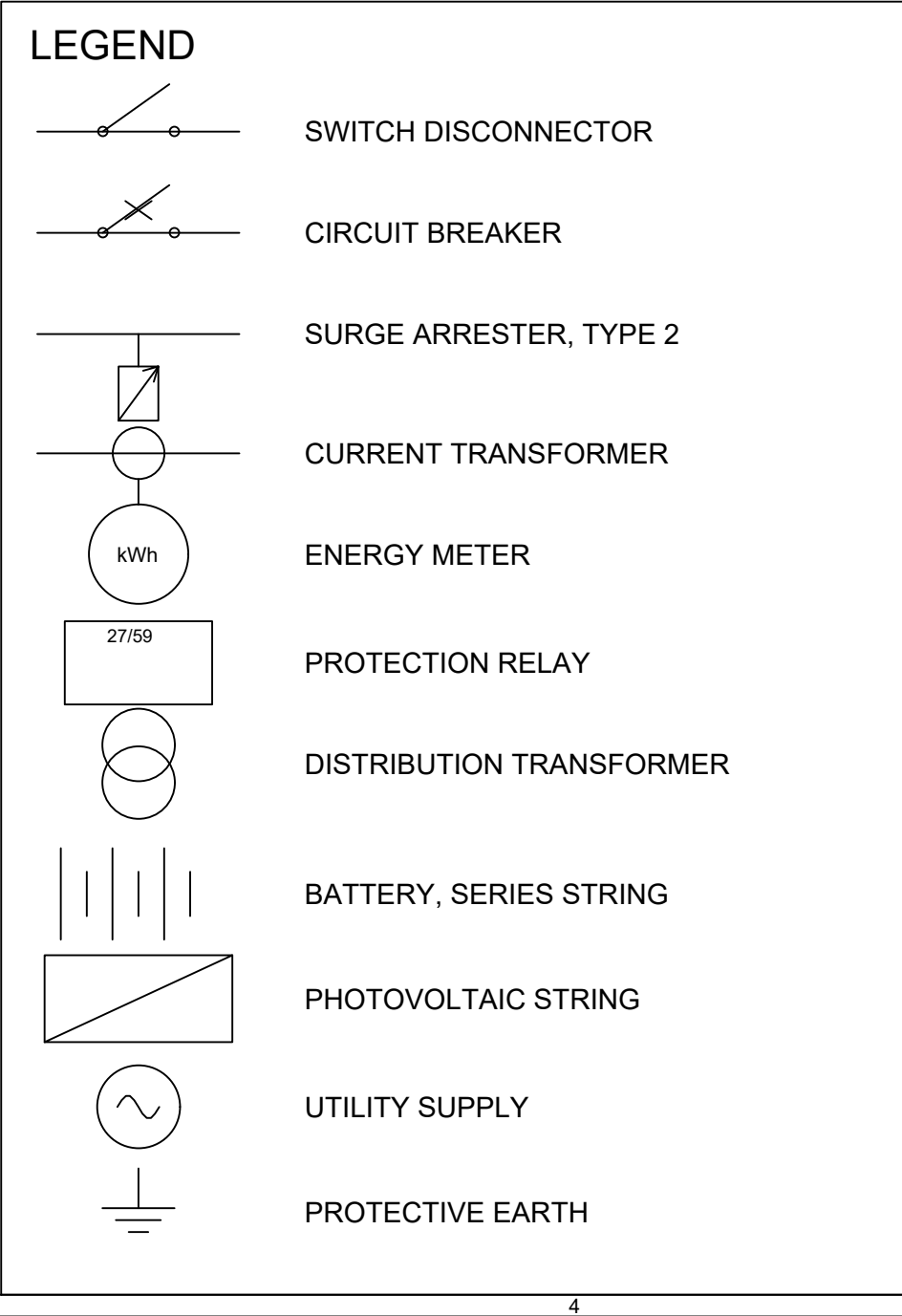
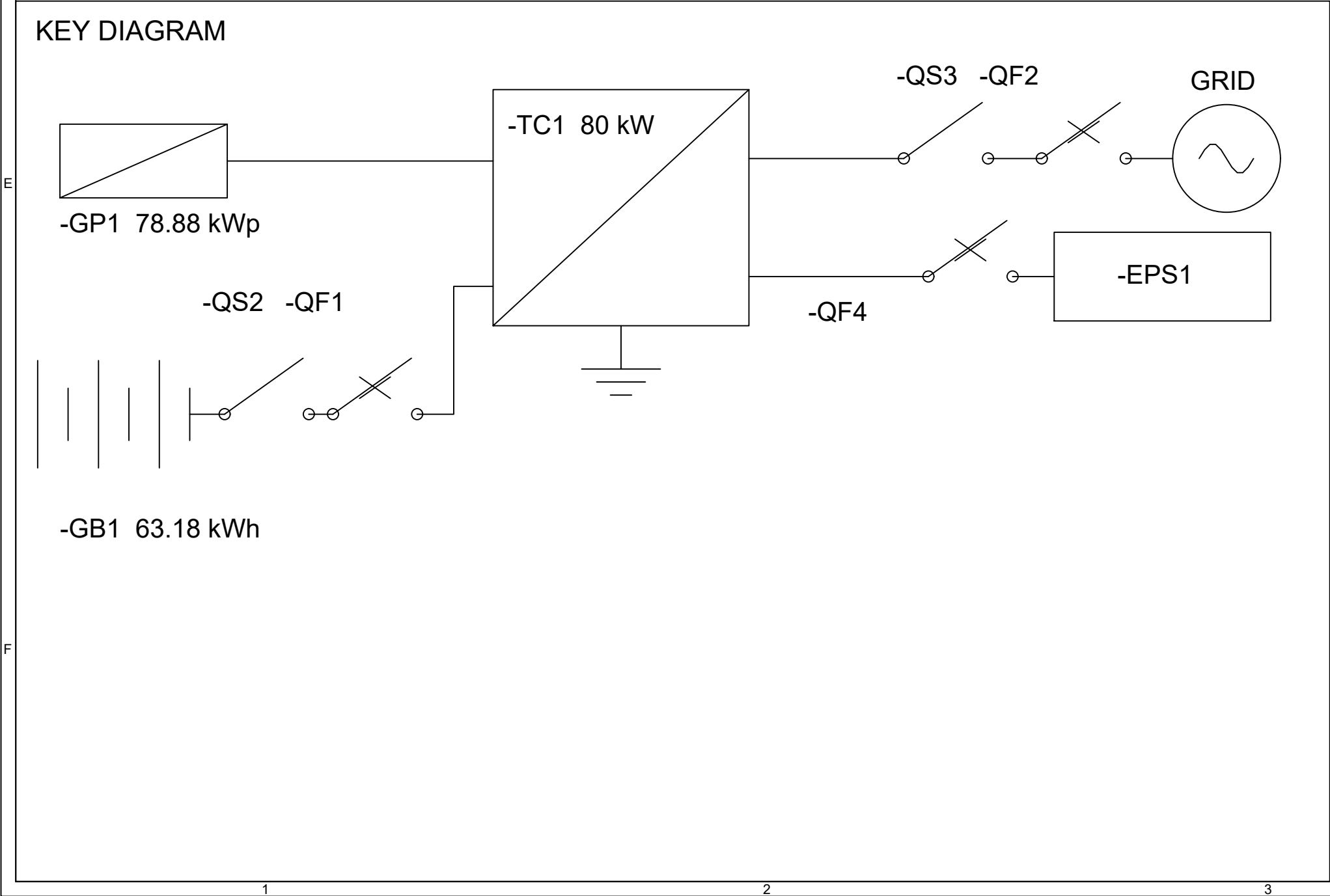
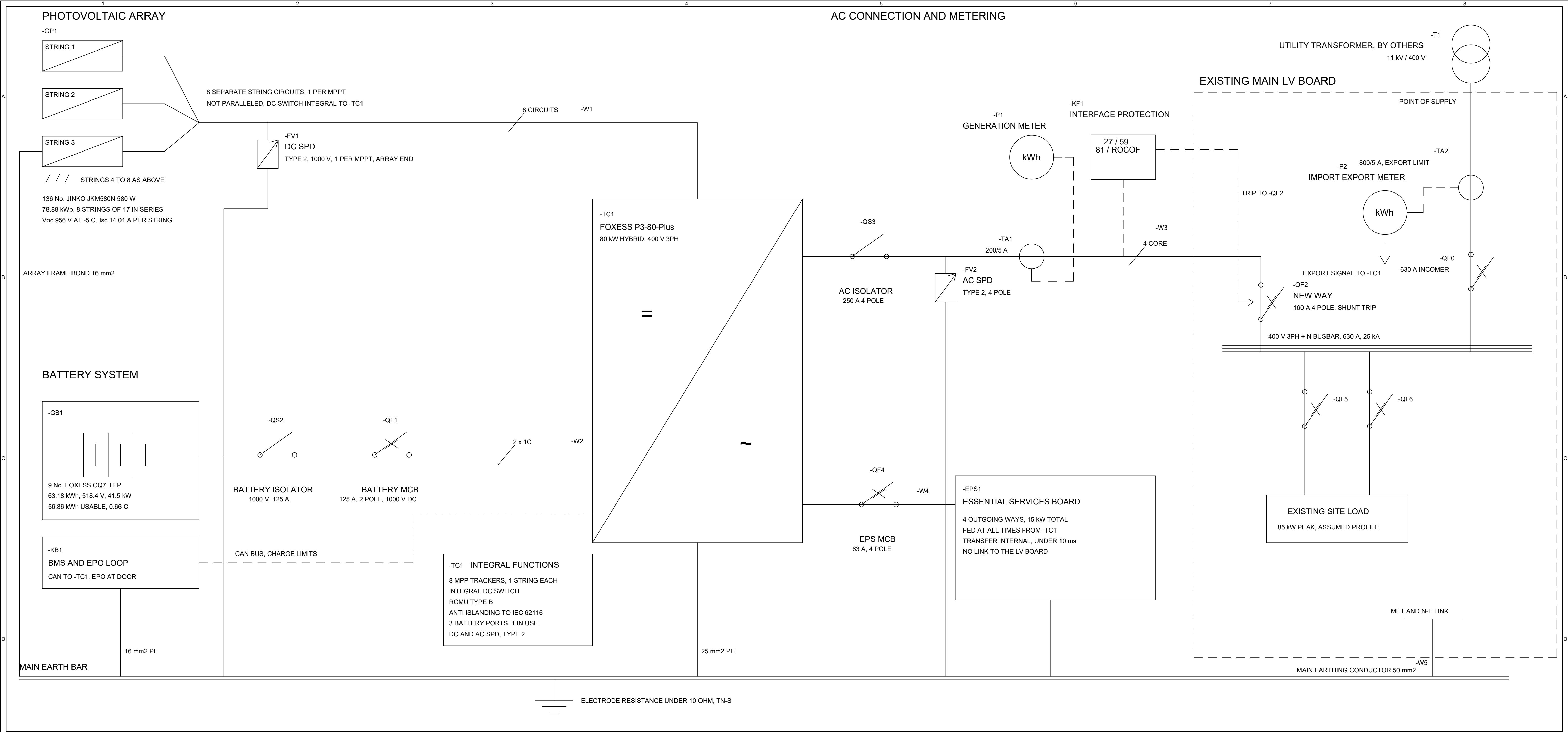




CABLE SCHEDULE			
TAG	CABLE	LENGTH	PROTECTION
-W1	16 x 1C 6 mm2 PV1-F	45 m	NONE, 1 PER MPPT
-W2	2 x 1C 35 mm2 Cu XLPE	8 m	-QF1 125 A DC
-W3	4C 95 mm2 Cu SWA	32 m	-QF2 160 A
-W4	4C 35 mm2 Cu	12 m	-QF4 63 A
-W5	1C 50 mm2 G/Y	20 m	EARTHING
SIZES AND VOLT DROP TO BE CONFIRMED ON ROUTE			

INTERFACE PROTECTION SETTINGS, TO BE CONFIRMED BY IESCO		
FUNCTION	SETTING	TRIP TIME
27 UNDER VOLTAGE	0.80 Un	2.5 s
27 STAGE 2	0.50 Un	0.5 s
59 OVER VOLTAGE	1.15 Un	1.0 s
81 UNDER FREQUENCY	47.5 Hz	0.5 s
81 OVER FREQUENCY	51.5 Hz	0.5 s
ROCOF	1.0 Hz/s	0.5 s
RECONNECT DELAY		180 s

NOTES				
1 NO STRING FUSES. ONE STRING PER MPP TRACKER, SO NO PARALLEL FAULT PATH EXISTS.				
2 BATTERY MODULES IN SERIES ONLY. NO PARALLEL STRINGS, ONE CURRENT PATH.				
3 -QF1 IS ABOVE THE 110 A SIXTY SECOND PEAK AND BELOW THE 35 mm2 CABLE RATING.				
4 SoC HELD BETWEEN 10 AND 100 %. 56.86 kWh USABLE, 3.79 h BACKUP FROM FULL.				
5 -EPS1 IS FED ONLY FROM THE -TC1 EPS PORT. ITS GRID BYPASS IS INTERNAL TO -TC1.				
6 EARTHING TN-S. ARRAY FRAME, BATTERY ENCLOSURE AND -TC1 BONDED TO THE EARTH BAR.				
7 EXPORT LIMITED BY SIGNAL FROM -TA2. CHECK SETTING AT COMMISSIONING.				

REV	DESCRIPTION	DATE	BY	CHK
P1	FIRST ISSUE FOR COMMENT	12.09.2026	UJ	--
P2	SPD AND METERING ADDED	28.09.2026	UJ	--
P3	ISSUED FOR COMMENT	08.10.2026	UJ	--

CLIENT	
SAMPLE COMMERCIAL CLIENT	
PROJECT	
79 kWp ROOFTOP PV WITH 63 kWh BATTERY STORAGE	
I-10 INDUSTRIAL AREA, ISLAMABAD	
DRAWING TITLE	DRAWING No.
SINGLE LINE DIAGRAM	PV-04
DRAWN USAMA JAVED CHK -- APP --	SCALE NTS @ A1 REV P3