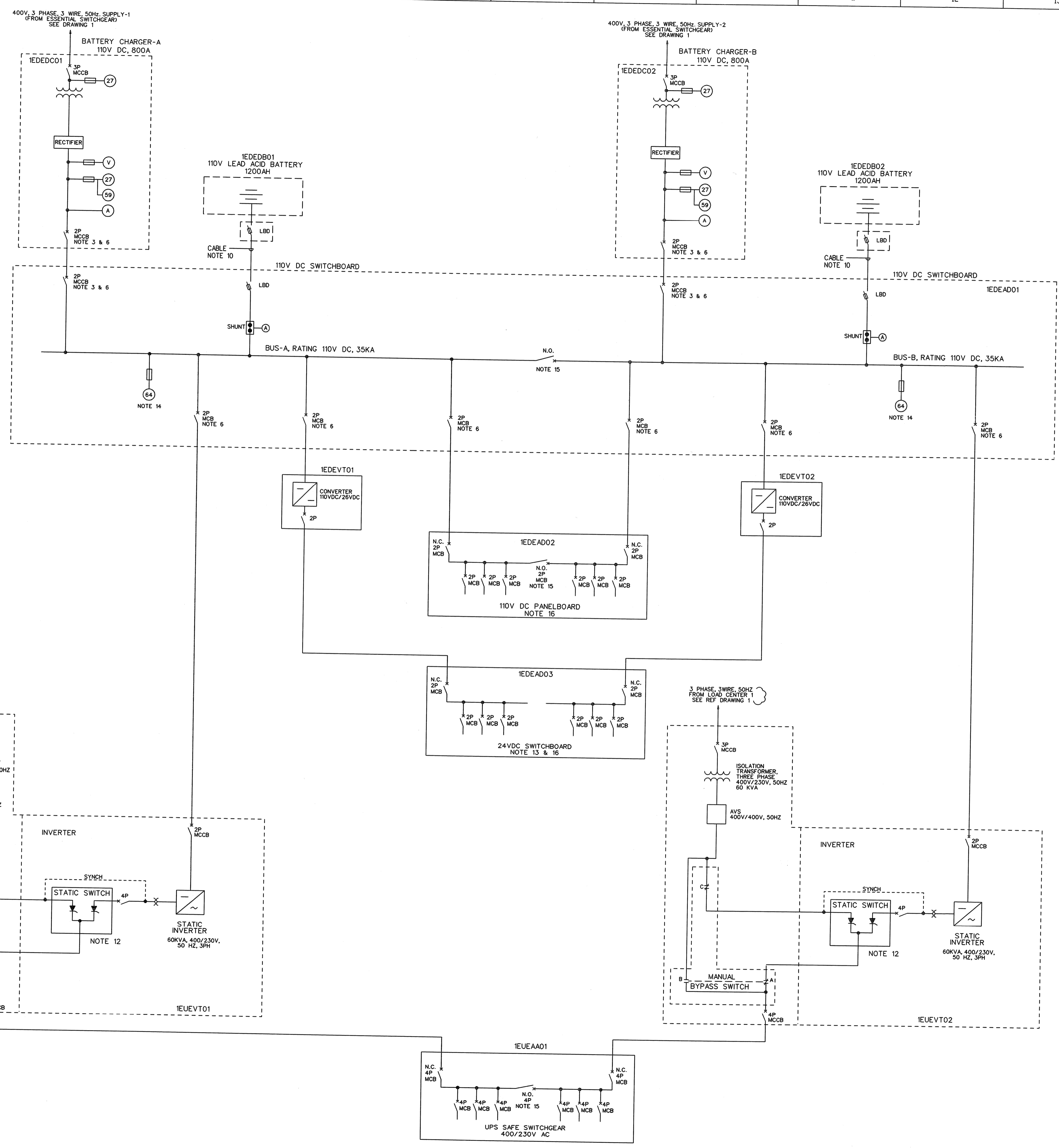


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- NOTES:**
- ALL MEASUREMENT AND BYPASS SWITCH POSITIONS TO BE READ ON THE GRAPHICAL DISPLAY.
  - A COMMON TROUBLE SIGNAL OUTPUT (OPEN ON TROUBLE i.e. SERIES COMBINATION OF DRY CONTACTS AS REQUIRED) WILL BE PROVIDED FOR REMOTE ALARM AND DISCONNECTION.
  - MAGNETIC BREAKERS WITH ADJUSTABLE MAGNETIC TRIP RATINGS.
  - NEUTRAL OF UPS SHALL BE EARTHED AT ONE POINT AT INVERTER. NEUTRAL SHALL BE ISOLATED FROM EARTH AT THE TRANSFORMER/ DISTRIBUTION PANEL SIDE.
  - EARTH NEUTRAL AT INVERTER OUTPUT.
  - A CONTACT WILL BE PROVIDED EACH FOR COMMON REMOTE ALARM AS WELL AS FOR LOCAL OPEN INDICATION FOR EACH FEEDER BREAKER.
  - EACH BATTERY CHARGER AND BATTERY IS SIZED TO FEED 100% OF LOAD.
  - EQUIPMENT AND BREAKER SIZING TO BE CONFIRMED (LATER).
  - SYSTEM VOLTAGE VARIATIONS ARE AS FOLLOWS:  
110V DC +10%, -15%  
230V AC +/- 10%  
24V DC (20V TO 30V)
  - CABLES FROM BATTERIES SHALL BE SIZED TO CARRY FULL FAULT CURRENT.
  - ALL SWITCHBOARDS AND PANELBOARDS WILL BE PROVIDED WITH 30% SPARE SPACE.
  - DURING NORMAL OPERATION, THE INVERTER SHALL SUPPLY POWER TO THE LOADS. UPON LOSS OF DC POWER, THE STATIC SWITCH WILL AUTOMATICALLY TRANSFER LOADS TO ISOLATION TRANSFORMER.
  - NEGATIVE OF 24V DC SYSTEM TO BE SOLIDLY EARTHED.
  - LOCAL AND REMOTE ALARM INDICATION SHALL BE PROVIDED.
  - DURING NORMAL OPERATION, THE TIE BREAKER SHALL BE OPEN. NO AUTOMATIC TRANSFER IS PROVIDED.
  - CONSUMERS WILL BE DOUBLE FEED WITH DIODE DC-COUPLING CIRCUITS LOCAL TO CONSUMERS.

**REFERENCE DRAWINGS:**

1. MAIN SINGLE LINE DIAGRAM 25474-000-E1-0000-00001

- LEGEND:**
- CIRCUIT BREAKER
  - LOAD BREAK DISCONNECT (LBD)
  - SHUNT
  - FUSE
  - DC TO DC CONVERTER
  - DC TO AC CONVERTER
  - AVS AUTOMATIC VOLTAGE STABILIZER
  - 2P 2 POLE
  - 4P 4 POLE
  - UNDERVOLTAGE
  - 59 OVERVOLTAGE
  - 64 EARTH FAULT SUPERVISION
  - MCB MINIATURE CIRCUIT BREAKER
  - MCCB MOULDED CASE CIRCUIT BREAKER
  - NO NORMALLY OPEN
  - NC NORMALLY CLOSED
  - V VOLTMETER
  - A AMMETER

PRELIMINARY

	26 Nov 08	REVISED PER 10112936-S-P-FIPB-E-0067	SS	RP	BR	WRE	
	10 Nov 08	REVISED PER 10112936-S-P-FIPB-E-0022 AND REDRAWN	SS	RP	BR	WRE	
	08 Nov 08	ISSUED FOR APPROVAL	SS	PK	BR	WRE	
Rev	DATE	REVISIONS	BY	CHK	DES	ENGR	PREL
<b>GASSNOVA</b>			CO2 KARSTO PROJECT				
10112936-PB-E-DGM-0002			DC AND UPS SINGLE LINE DIAGRAM				
BECHTEL POWER CORPORATION FREDERICK, MARYLAND			Sheet Size 594 X 841 'A1' Scale 1:500 JOB NO. 25474-000 DRAWING NO. E1-0000-00002 REV. 2				