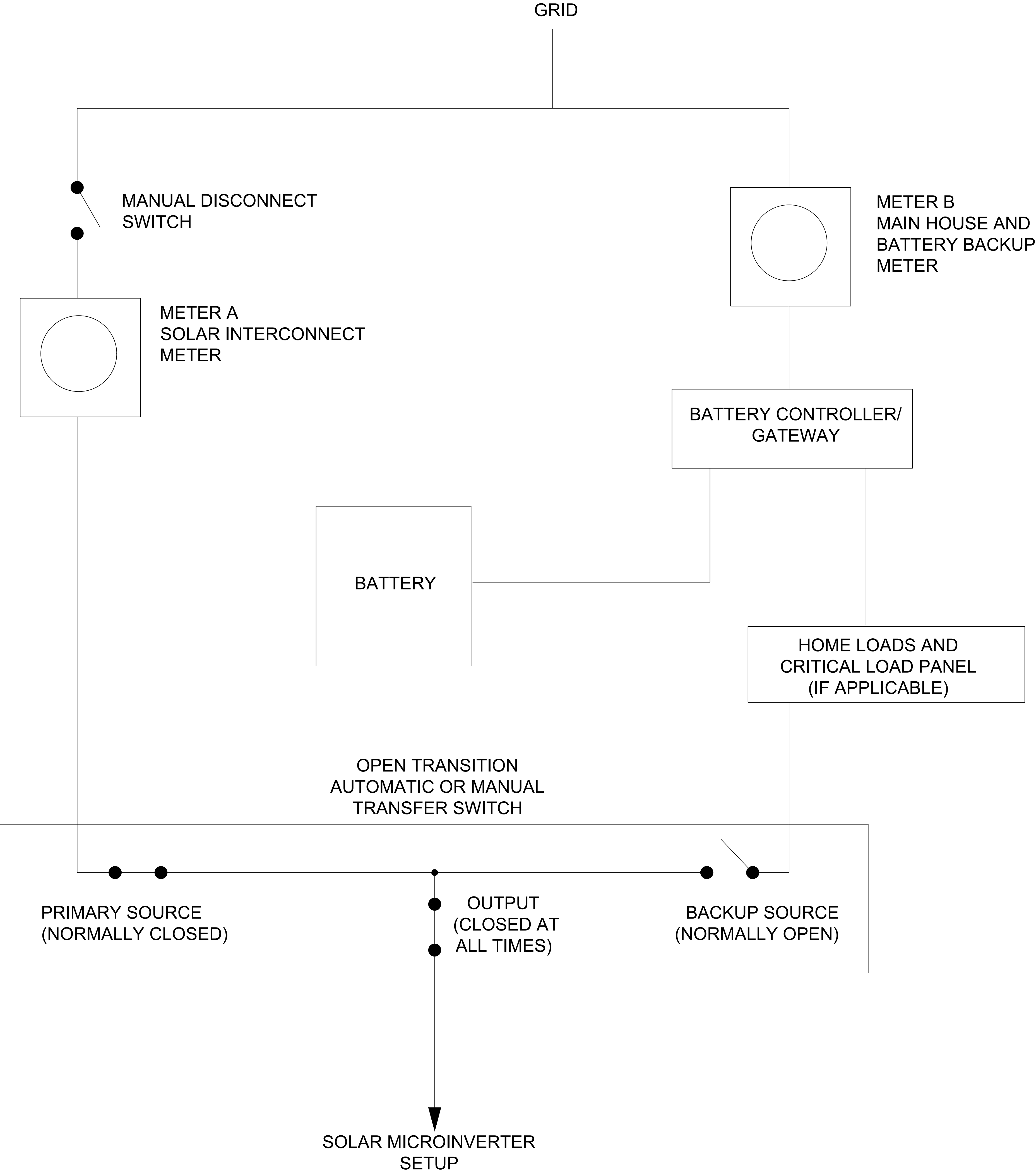




- DURING NORMAL OPERATION:
1. PRIMARY SOURCE AND LOAD ARE CLOSED IN THE TRANSFER SWITCH. SOLAR IS CONNECTED DIRECTLY TO GRID VIA METER A
 2. BACKUP SOURCE IS OPEN IN THE TRANSFER SWITCH ISOLATING THE HOUSE LOADS AND BATTERY FROM SOLAR, AND CONNECTING THEM DIRECTLY TO GRID VIA METER B.

- DURING A GRID OUTAGE:
1. METER A AND METER B ARE DEAD.
 2. BATTERY CONTROLLER SENSES LOSS OF GRID POWER AND OPENS ITS SWITCH, ISOLATING BATTERY AND HOME LOADS FROM GRID AND METER B.
 3. SOLAR MICROINVERTER(S) SENSE(S) LOSS OF GRID POWER AND OPEN. PRIMARY SOURCE AND OUTPUT SWITCHES ARE STILL CLOSED.
 4. ATS SENSES LOSS OF GRID POWER ON ITS PRIMARY SOURCE, TRIPS PRIMARY SOURCE OPEN ISOLATING IT FROM METER A, AND CLOSSES BACKUP SOURCE.
 5. TRANSFER FROM PRIMARY SOURCE TO BACKUP SOURCE HAPPENS IN AN OPEN TRANSITION (BREAK BEFORE MAKE)
 6. ATS OUTPUT STAYS CLOSED AT ALL TIMES.
 7. WITH BACKUP SOURCE NOW CLOSED, VOLTAGE FROM THE BATTERY SIGNALS THE MICROINVERTER(S) TO CLOSE IN AND START PRODUCING ENERGY TO CHARGE THE BATTERY, AND PROVIDE POWER TO THE HOUSE AND CRITICAL LOADS.

**BLOCK
ISLAND
UTILITY
DISTRICT**

**100 OCEAN AVE.
BLOCK ISLAND,
RI 02807**



**SOLAR AND
BATTERY BACKUP
WITH 2 METERS
ONE-LINE
DIAGRAM**

PREPARED FOR BLOCK ISLAND
UTILITY DISTRICT

BY:
PANOS TOKADJIAN

DATE: 1 SEPT., 2026

SHEET 1 OF 1

REV 1.: ADDED DETAILS IN
TRANSFER SWITCH.