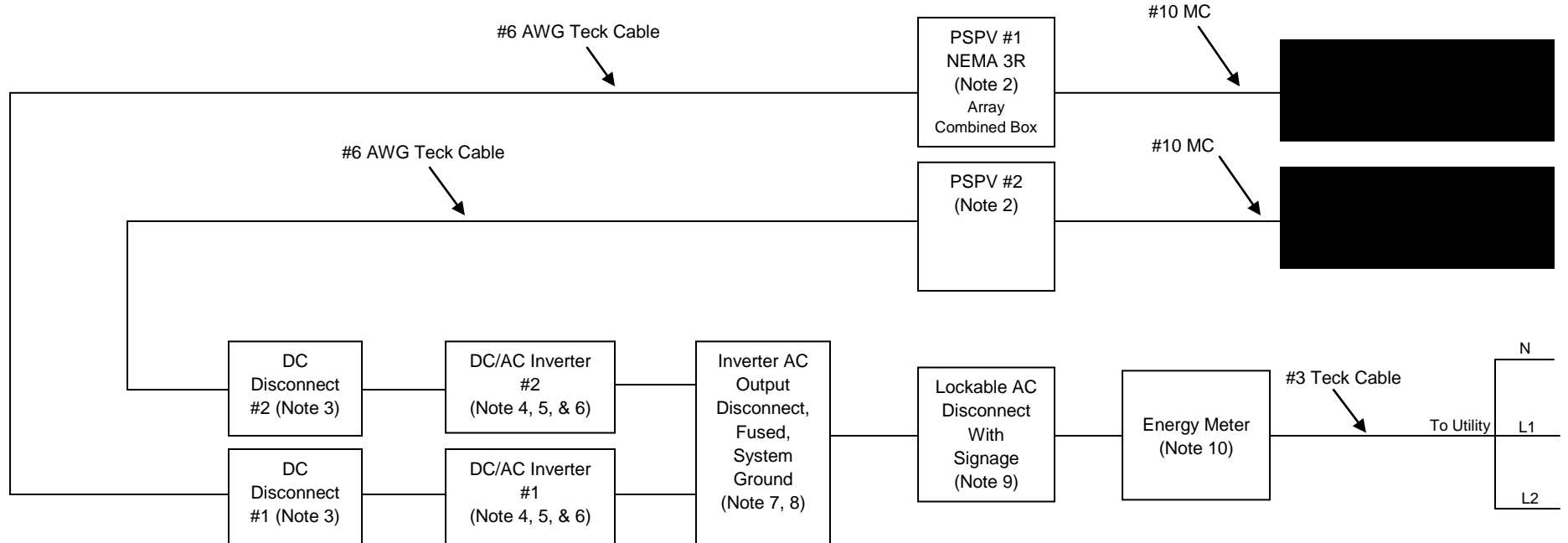


Sample Single Line Diagram

PV Array, 2 Sets 2 strings of 13-198w Panels (Note 1)



Notes:

1. PV Array consists of 2 sets of 199-watt connected in series parallel 2 strings of 13 panels connected series (tl of 52 panels). A DC-Surge/ Lightning arrestor installed in the PSPV-Fused solar arrays.
2. PV Array Wiring to PSPV Combiner box is #10 AWG MC Connectors to Interface w/ modules. PV Array Combiner/ Junction boxes provides transition from array MC-Wiring to TECK cable and 15 amp fusing.
3. PV Power Source DC-Disconnect #1 & #2 (Un-fused) rated at 30 amp Switch, 600VDC, Type 3R enclosure.
4. Ground-Fault Protection is provided in the Fronius IG 5100's DC to AC Inverters #1 & #2.
5. DC/AC Inverters #1 & #2 are XANTREX GT5000 which are rated at 5.0kW AC output and are rated to provide a Maximum AC Current of 20.83 amps at 240-Volts at 40-deg. Celsius each.
6. Both inverters are listed to UL-1741 "Utility Interactive".
7. Inverters AC Output Disconnect Switch, Fusible with Neutral, 2-Pole, 60 amps, 240VAC, NEMA 3R.
8. AC Disconnect has 2-60 amp, 250 VAC, Dual element, time-delay, RK5 and System Level Grounding.
9. AC Utility Switch, Un-fused, 3-Pole, 60A, 600VAC, NEMA 3R Safety Disconnect. This switch has an easy to read waterproof sign reading "WARNING, TWO POWER SOURCES – PARALLEL SYSTEM" and houses a system single line diagram of the entire PV system.
10. 100 amp utility revenue meter with waterproof signage reading "WARNING, TWO POWER SOURCES – PARALELL SYSTEM) posted clearly visible.
11. Equipment grounding conductors on AC and DC side are sized according to code.
12. Solar panels, racks and PSPV combiner boxes, inverters and switch panels are all grounded and linked to a common ground located at the Fused AC-60 Amp Disconnect Panel.
13. Utility tie in is by a TECK Cable 3C-6AWG, maximum of 200 feet long, to be determined at time of installation.

Professional Engineer

Project: **New Solar Installation**

Drawn by: An. Engineer

Date: Jan. 01, 2010

Title: One-Line
Diagram for 10-kW
MicroFIT PV System

Drawing No.
0000-0000