

St. Croix Electric Cooperative

Wiring Diagram for Current Transformer (CT) submetering of Off-peak Electric

Contact Information:
If you have any questions or other off-peak
metering options, please call
Member Services at 715-796-7000

LMR Schematic

R1 – Water Heater (240 VAC, 30A)
Blue wires (N.C.)

R2 – Dual Fuel (120 VAC, 5A)
• Electric Boiler : Orange } (N. O.)
• Heat Pump Yellow } (N. C.)
• Base board White/green }
• A/C

R3 – Storage (120 VAC, 5A)
• In-floor heat White / Blue } (N. O.)
• ETS heaters Grey } (N. C.)
• EV chargers Violet }

R4 – Warning
• Brown / White – Relay driver

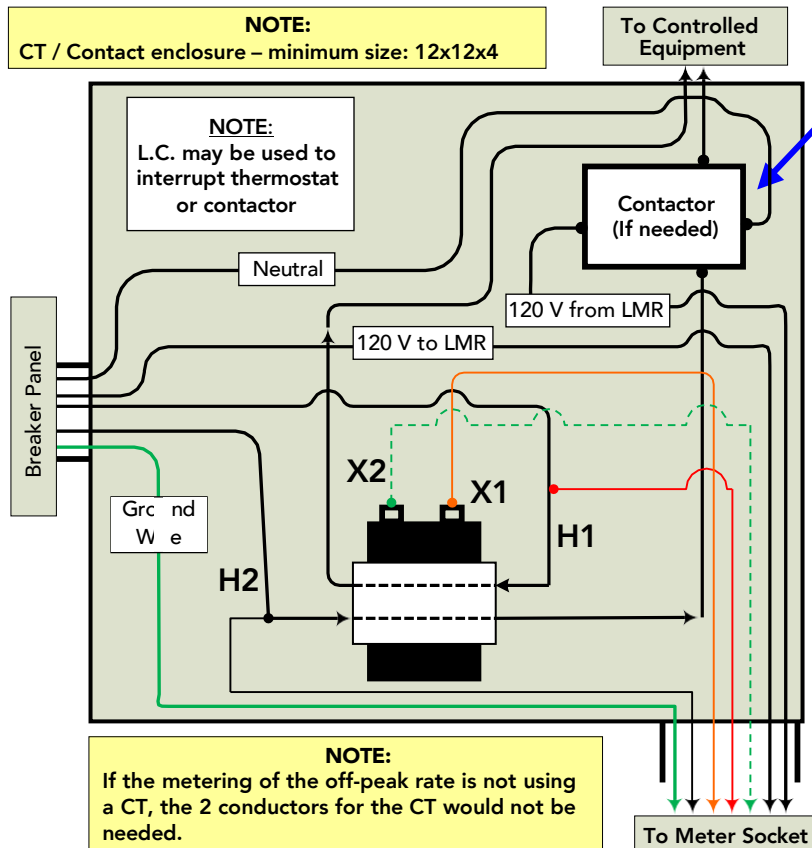
Load Control (L.C.) Power –
• Red (N) } (120 V)
• Black }
White/Red } (240 V)
Current Transformer (CT) provided by SCEC

NOTE:

All wires of the same leg in the breaker panel must
pass through the CT in the same direction.
CT X2 must be grounded either in the meter socket
or the CT enclosure but not at both ends.

NOTE:

CT / Contact enclosure – minimum size: 12x12x4

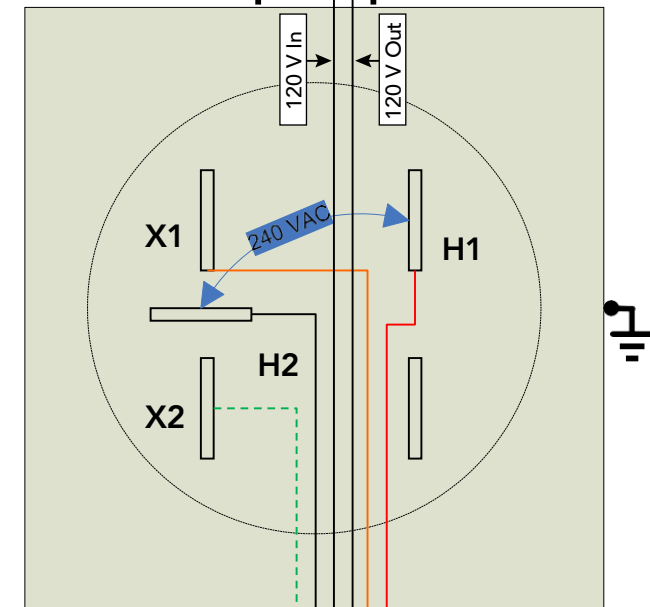


NOTE:

- No Contactor is needed for the Water Heater
(use 30A relay in L.C.)
- Use contactors with 120 V Coils, normally
open contacts

Wire sizes & colors pulled/ran by Electrician from Members panel

- 2 – Blue #10 THHN (Water Heater)
- 2 – Yellow #12 THHN
(Dual Fuel: Electric heat / A/C)
- 2 – Purple #12 THHN (Storage Heat / EV Charger)
- 2 – Brown #14 THHN (Alert) – [If needed]
- 1 – Black (H2) } (240 V) #12 THHN
- 1 – Red (H1) }
- 1 – Orange (X1) #12 THHN
- 1 – Green (X2) #12 THHN
- (NOTE: Check CT burden table to verify wire size)
- 1 – Green #12 THHN to ground
meter socket



NOTE:

5-Jaw meter socket
mounted outside of house.

Conduit between meter socket and CT enclosure:
Minimum 3/4" ID

Leave 18" of wire in meter socket. Wires terminated
by SCEC.



Off-peak (subtractive) Meter Socket



Current transformer – supplied by SCEC



Example of off-peak installation

NOTES:

Meter socket needed = Mill bank MLB U748-RL or equivalent

1" Meter Hub = Millbank MLB A7514 or equivalent

1" to 3/4" reducing hub

5th terminal = MLB5TK2 or equivalent

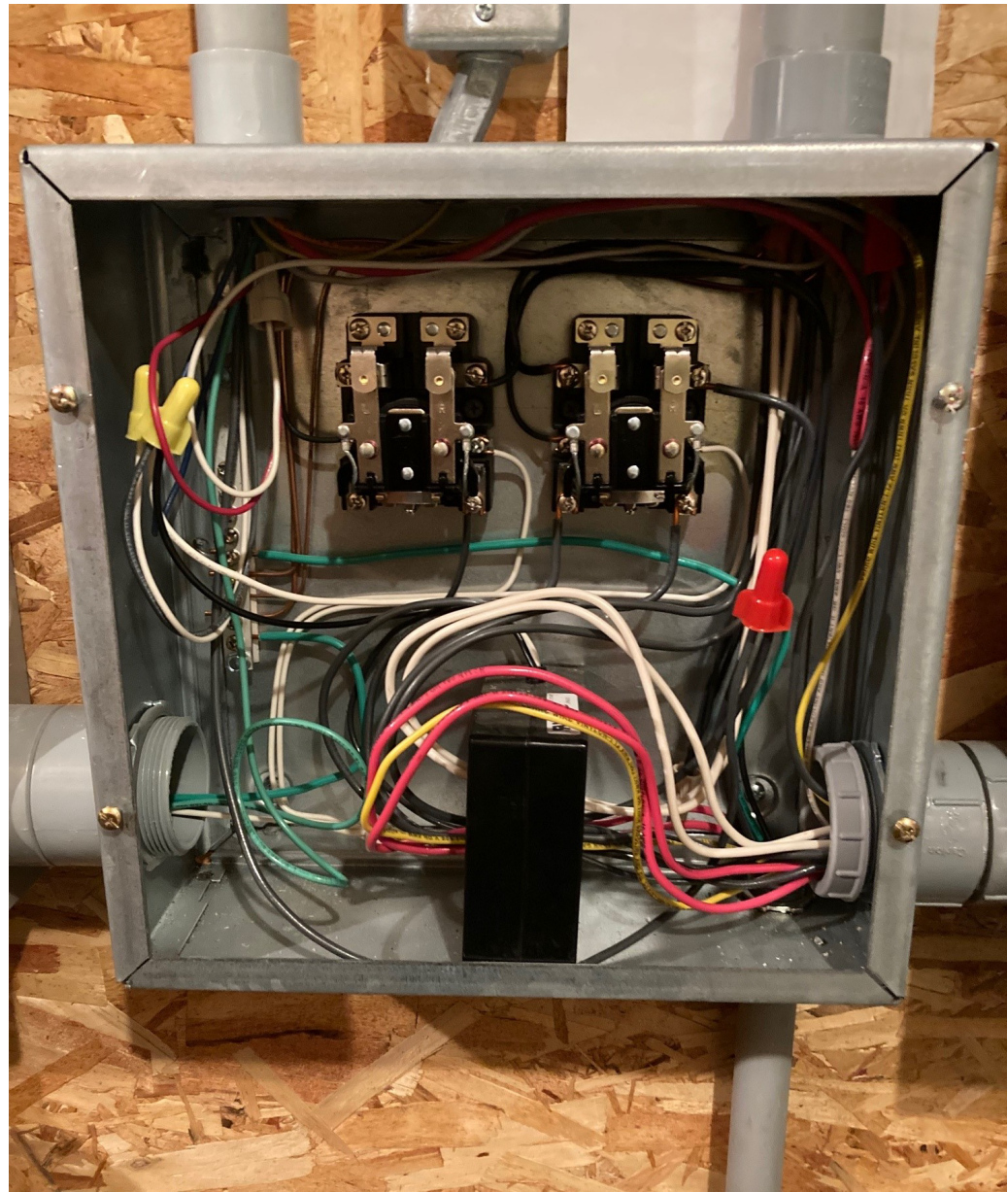
Off-peak Meter Socket package available for purchase. See price list for current price.

Current transformer provided by SCEC and can be picked up at SCEC headquarters.

Contact Information:

If you have questions, please call Member Services at 715-796-7000.

12" x 12" Off-Peak Junction Box



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