



Pierce Pepin Cooperative Services

Wiring Diagram for Current Transformer (CT)

submetering of Off-peak Electric

Revised: Thursday, August 14, 2025

Contact Information:

If you have any questions on other off-peak metering options,
please call -

Director of Energy Innovation – David Chavie
715/273-2433

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.)
- Violet

R4 – Warning

- Brown / White – Relay driver

Load Control (L.C.) Power -

- Red (N) } (120 V)
- Black } (240 V)
- White/Red

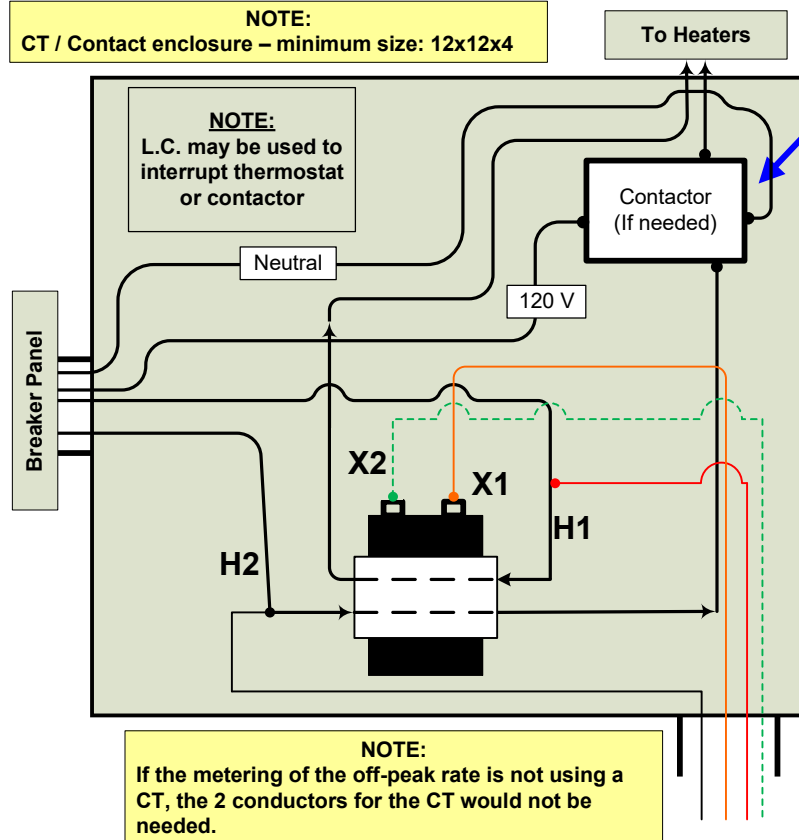
✓ Current Transformer (CT) provided by Pierce Pepin

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

To Heaters



NOTE:

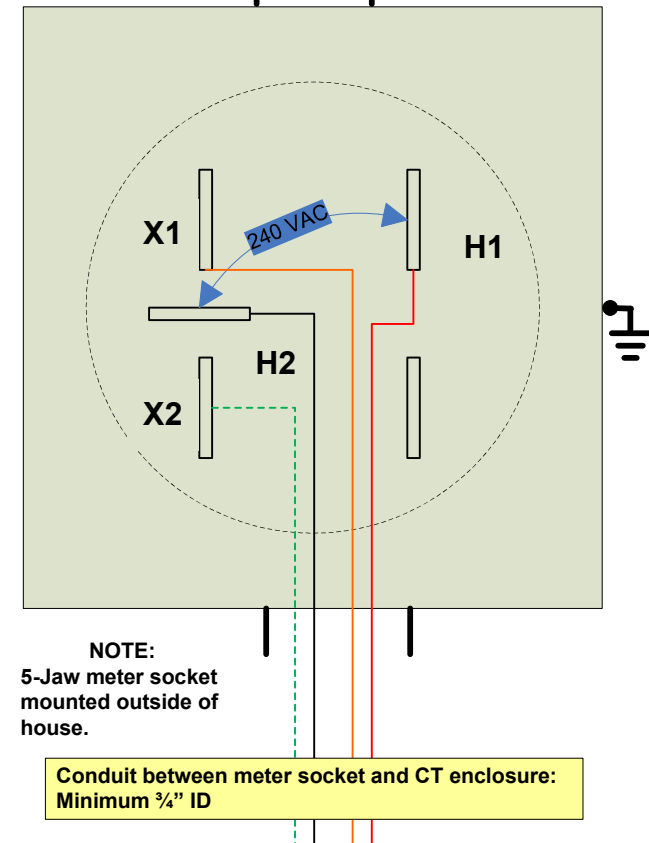
- No Contactor is needed for the Water Heater (use 30A relay in L.C.)
- Use contactors with 120 V coils, normally open contacts

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)
- 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



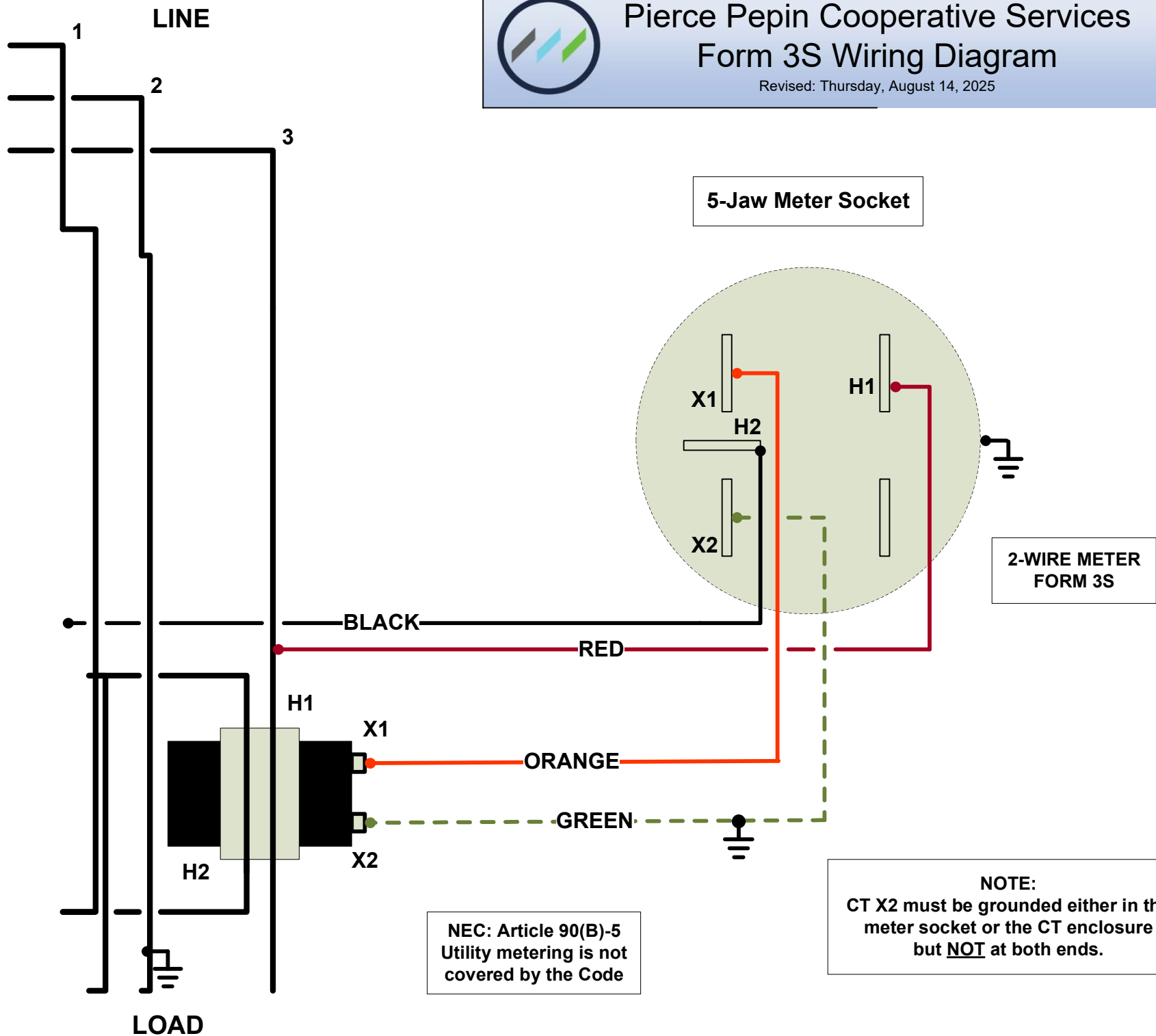
**PPCS
Load Control (LC)**





Pierce Pepin Cooperative Services Form 3S Wiring Diagram

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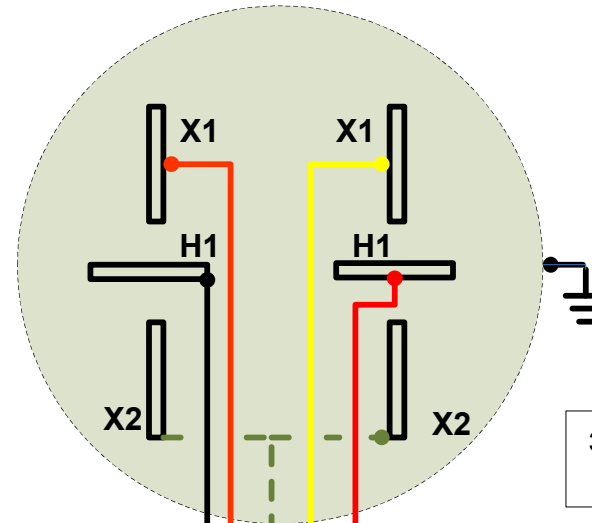




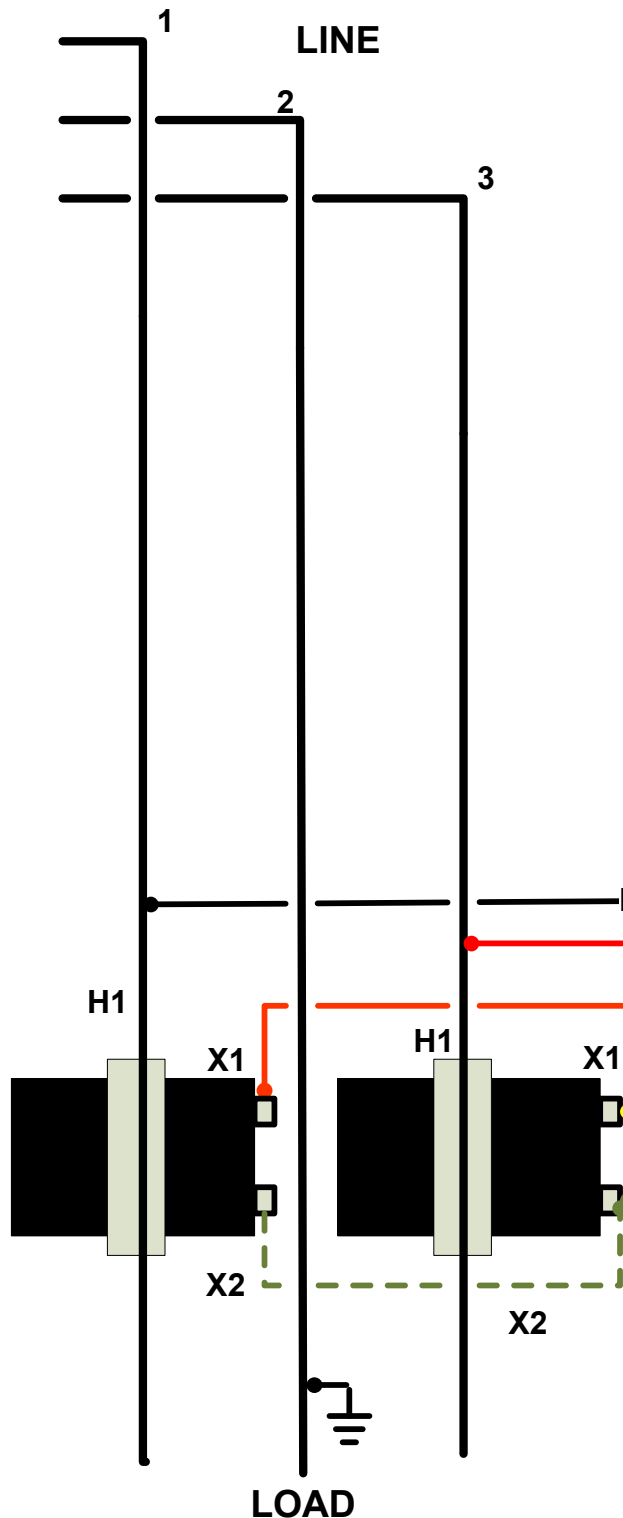
Pierce Pepin Cooperative Services Form 4S Wiring Diagram

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6-Jaw Meter Socket



3-WIRE METER
FORM 4S



BLACK

RED

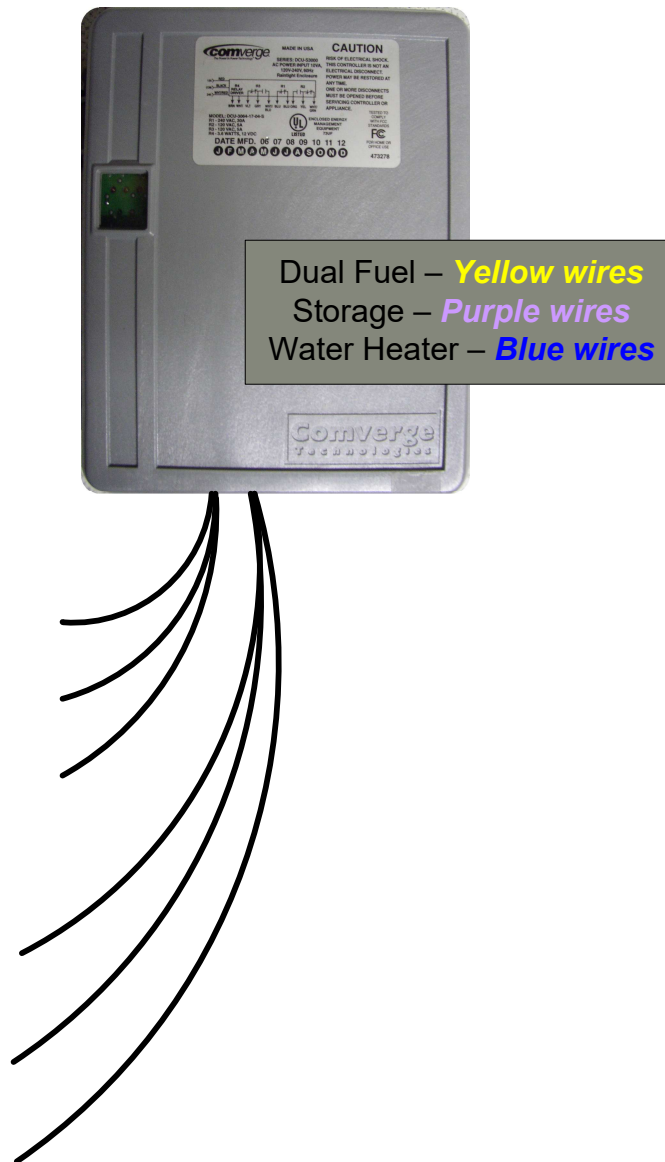
ORANGE

YELLOW

GREEN

NEC: Article 90(B)-5
Utility metering is not
covered by the Code

NOTE:
CT X2 must be grounded either in the
meter socket or the CT enclosure
but NOT at both ends.



Dual Fuel – **Yellow wires**
Storage – **Purple wires**
Water Heater – **Blue wires**



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