



MEMBER FOCUSED
**SAFETY
ALWAYS**

CONTRACTOR **SAFETY** ORIENTATION

METER DISCONNECT / RECONNECT



GENERAL HAZARDS

- **Our meters, while owned by Connexus Energy, are present on the property of our customers**
- **As such, we do not control the environment those meters are present in**
- **Our experience tells us that you can expect several potential hazards on customer owned property, dependent on what type of property that is**
- **That does not however preclude or predict unexpected hazards created by the environment or the property owner**
- **Contractors may request other information about the design and operation of the Connexus electrical system that is known and related to the protection of the contractor employees**



ENERGIZED WORK

- **Meters may be energized at the following voltages:**
 - ✓ 120/240V (single phase)
 - ✓ 120/208 (3 phase)
 - ✓ 240/480V (single phase / 3 phase)
 - ✓ 277/480 (3 phase)
- **Arc flash is possible inside an energized meter base. An arc may sustain itself until the connection gap becomes too great for the available current to bridge.**
 - ✓ If an arc occurs step back from the arc immediately
 - ✓ Call 911 if an injury or fire results
 - ✓ Report the incident to Connexus Energy System Operations



GENERAL HAZARDS

- **Hazards we have experienced on customer property (homeowners)**
 - ✓ Slip, trip and fall hazards (snow, ice, water, soil)
 - ✓ Uneven terrain
 - ✓ Objects (sharp edges, trip hazards)
 - ✓ Animals (dogs can be specifically unpredictable)
 - ✓ Poisonous plants, plants with sharp thorns
 - ✓ Stinging and biting insects
 - ✓ Overhead hazards (low clearances, falling ice or snow)
 - ✓ People
 - ✓ Vehicles



GENERAL HAZARDS

- **Hazards we have experienced on construction or industrial sites**
 - ✓ Large equipment (earthmoving) and vehicles
 - ✓ Trenches and excavations
 - ✓ Slip, trip, and fall hazards
 - ✓ Machinery (moving parts)
 - ✓ Cables, wire, gas pipe, and other utilities
 - ✓ Spills (oils, petroleum products)



RECOMMENDED PPE

- The contractor will ensure the proper PPE is worn / used by its employees, per the contractors evaluation of the hazards present and all applicable laws and regulations.
- Generally, the following is recommended based on our experience:
 - ✓ Arc rated FR clothing
 - ✓ Rubber gloves and protectors rated at appropriate voltages
 - ✓ Eye protection (ANSI Z87+)
 - ✓ Head protection (electrically rated hard hat)
 - ✓ Face protection (arc rated face shield available if needed)
 - ✓ Safety toed shoes/boots



SPECIFIC HAZARDS WITH METERS

- **The meter is the interface and connection point between our energized distribution wires and the premise**
- **Meters shall only be removed or connected by trained and authorized contractors/employees trained on their function and operation**
- **A meter / socket should be considered and treated as energized unless it has been tested and confirmed no voltage is present**
- **Some services may have demand actuated generators (automatically start when utility power is interrupted – may reenergize the socket)**



RECOGNITION OF HAZARDOUS CONDITIONS

- **All meters / meter bases should be inspected before beginning the work for any hazards or hazardous conditions.**
- **The next few slides will depict some specific hazards / hazardous conditions we have experienced on our system.**
- **If you encounter one of these conditions, we expect that you the contractor make Connexus Energy aware of the conditions**
 - ✓ **For immediate danger to life or health call System Operations**
 - ✓ **For other conditions notify the contract owner or their designate**



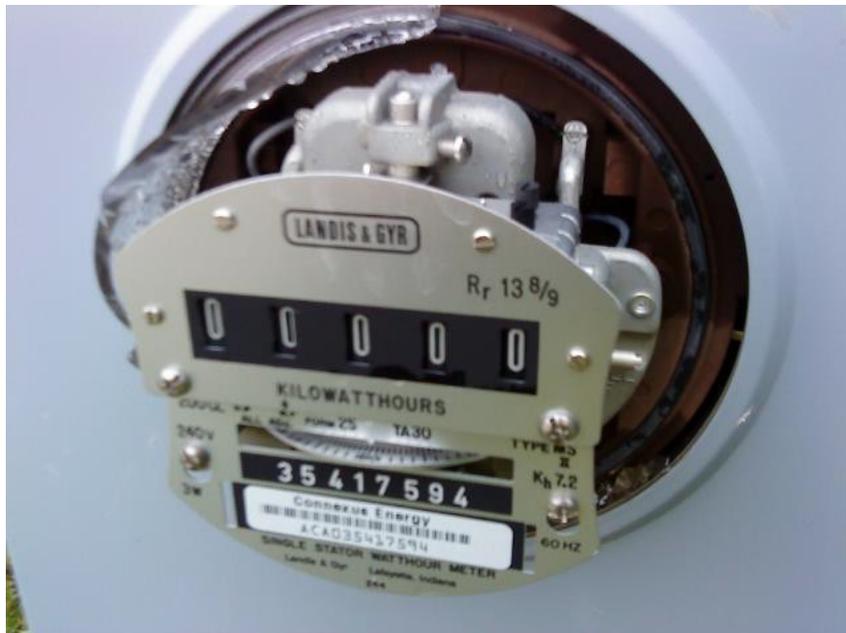
METER TAMPERING

- The following may indicate meter tampering, which can lead to unpredictable connections in the meter socket.
 - ✓ Cut seals
 - ✓ Rigged or “tricked” seals
 - ✓ Broken meter latches
 - ✓ Rivets drilled out on the latch



METER SOCKETS

- **Sockets may be missing meters, or have broken or missing glass on the meter**



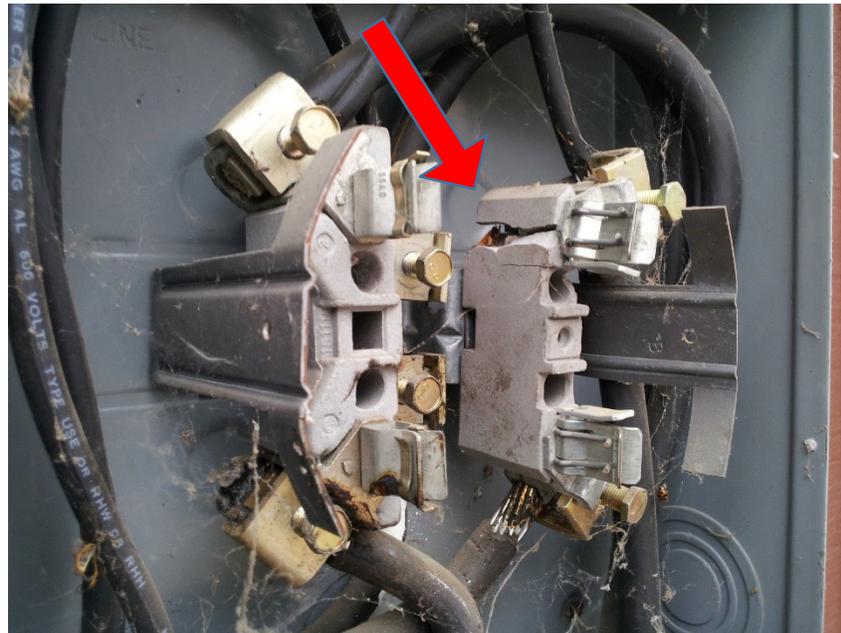
METER SOCKETS

- Insects or rodents have been known to create nests inside meter bases and sockets.
- This could create situations where when disturbed an energized meter base could ignite debris in the meter socket.
- Any arcing or charring indicates a potential hazard.



METER SETTLING/DISTURBANCE

- Due to shifting ground, service wires may “pull” on the meter lugs, potentially breaking the wire insulation.
- This may crack the meter “jaws” as well.
- A “tilted” meter may indicate the presence of this condition.



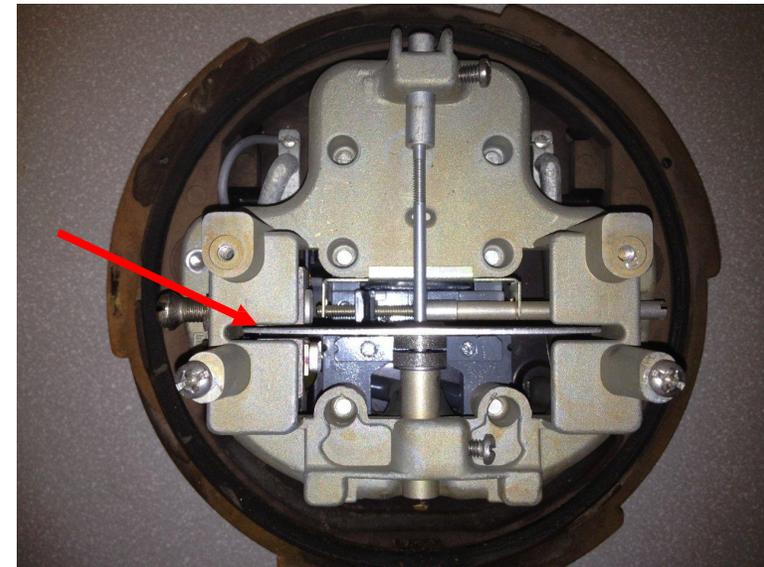
METER DIVERSION

- Stop work at ANY evidence of diversion and notify Connexus Energy immediately.
- The photos show several methods diversion takes place.

Magnet on the meter



Displaced disk

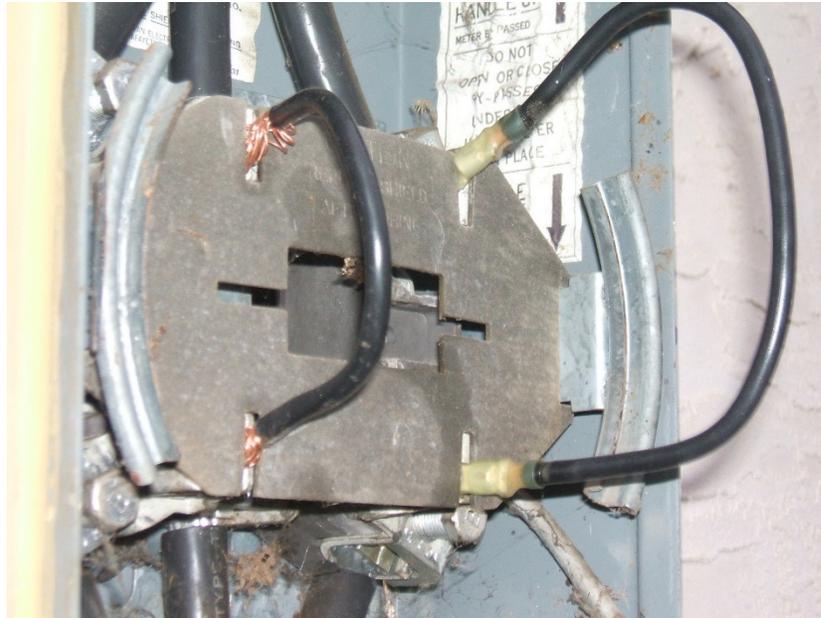


METER DIVERSION

Slugged connection



Jumpered connection



Line side tap



SUMMARY

- **Contractors may request other information about the design and operation of the Connexus electrical system that is known and related to the protection of the contractor employees**
- **When in doubt, contact Connexus Energy**
- **Every premise / yard may have hazards – complete an adequate site evaluation before beginning work**

