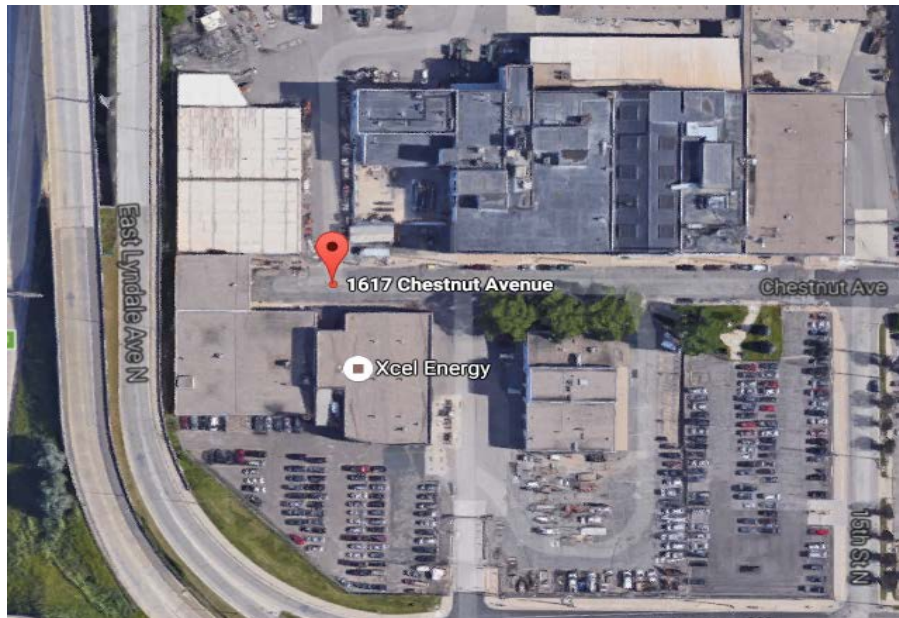


Installation and Shipping Process for Meter Equipment in cabinets: Revision 1.2

Instrument transformers and meter sockets are delivered to Xcel Energy's facilities from manufacturer. Xcel Energy will perform regulatory required testing as well as inventory entry of equipment.

Shipping

- **Preferred Option** – (Developer pick-up)
 - Once testing is completed and passed, Metering will reach out to customer, "Developer", to arrange for pick-up
 - Both procurement of shipping outfit and costs associated with shipping of CT's, PT's, and meter socket to be handled by customer/developer
 - Equipment will be stored and tested at Xcel Energy's Minneapolis facility and can be picked up from 1617 Chestnut Ave N., Minneapolis 55403
 - **Dial 4181** at the East or South Gate for meter shop dock to allow access to the facility



- Assistance in loading equipment onto the truck can be provided by Xcel
- **Secondary Option** – (Xcel Energy Delivers)
 - All shipping costs will be charged to developer
 - \$120/hr flat charge roughly,
 - Must provide the following information
 - Location of travel
 - Types and quantities of equipment including pallet size

- After testing is approved, Metering will reach out to customer, “Developer”, to arrange for delivery

Installation

- In factory, instrument transformers and meter sockets will be mounted for switchgear/pad mount cabinet by customer. Meter sockets not to be mounted on doors.
 - High side connections will be made to the bus and/or line and load termination points.
 - Low side connections to be made from instrument transformer secondary and left unterminated inside meter socket.
 - Voltages and currents brought from secondary terminals to be color-coded and/or labeled indicating what type they are.
 - Xcel color code listed below:
 - Va: Yellow
 - Ia: White
 - Ir (current return): Green
 - Vb: Brown
 - Ib: Black
 - Ir: Green
 - Vc: Orange
 - Ic: Red
 - Ir: Green
 - Vn (neutral voltage) : Blue
 - Meter socket to be mounted on side of cabinet or adjacent to cabinet meeting all height, clearance, and other requirements based off of installation standards.
 - In cases of common bus or multi-section switchgear, wiring to be run in conduit to ends of switchgear or to an external mounting board for all meters.
 - Must provide wear and weather resistant labeling indicating which CSG is associated with which meter.
 - Conduit to be run in between switchgear and meter socket where necessary.
 - Proper grounding and bonding to be maintained between socket, cabinet and neutral connections.
 - Must have bonding wire from switchgear or pad mount grounding bus to meter socket ground.

Diagram: Meter Socket Internal with color code

