

Indianapolis Power & Light Company

Electric Service and Meter Manual

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"Holey Moley
Sez"

**DON'T
DIG
BLIND**



**ELECTRIC
GAS or OIL
COMMUNICATIONS
WATER
SEWER
PROPOSED EXCAVATION**

RED
YELLOW
ORANGE
BLUE
GREEN
WHITE

ALL OF THE FOLLOWING INFORMATION IS NEEDED WHEN CALLING [INDIANA 811](#):

COUNTY
TOWNSHIP
STREET ADDRESS
TYPE OF WORK
EXTENT OF WORK
NAME OF CALLER AND TITLE

TELEPHONE NUMBER
BEST TIME TO CALL
START DATE AND START TIME
CONTRACTOR
CONTRACTOR ADDRESS



Call two working days before you dig

[UNDERGROUND PLANT PROTECTION INFORMATION](#)

**TOLL FREE
Call 811
Before You Dig**



The following information is required for electric service from the company. Please obtain this information from the owner and bring it to the meeting with the company layout personnel.

Service Address _____

Zip Code _____

Customer Name (Who pays the bill when the service is initially energized?) _____

Mailing Address _____

Mailing City / State _____

Mailing Zip Code _____

Responsible Party (to answer questions regarding the bill) _____

Phone Number _____

Character of Business _____

Amperes _____

Voltage _____

kW Load _____

Permanent/Temporary _____

Owner / Tenant _____

Date Wanted (Service ready?) _____

Date of Full Operation _____

Electrician's Company Name _____

Electrician's Name _____

Phone Number _____

IPL Engineer _____

IPL Fax Number (317) 630-5625 _____

Comments _____

COMMERCIAL/INDUSTRIAL INFORMATION SHEET

114 MAINTAINING SECURITY OF LOCKED FACILITIES

It is unlawful to break locks for access to any Company facilities without notifying the Service Dispatch Office on telephone number 261-8111. Cooperation will be extended at the request of the qualified Electrician for under emergency conditions. Request shall be made to the Service Dispatch Office for these cases.

There are situations where a qualified electrical contractor needs to gain access into a pad mounted transformer, a locked meter cabinet, or a locked junction cabinet for normal maintenance or construction work. Under these conditions, contact the appropriate Section Leader shown on drawing GB0-140.

For access to sealed meter facilities, see Section 555.

PART II: SECONDARY SERVICE - OTHER THAN NETWORKED SERVICE AREA

200 SECONDARY VOLTAGES AVAILABLE

After determination as to whether electricity will be supplied from overhead or underground in accordance with the Company's underground policy and any legal requirement, the Company will specify one of the following secondary service voltages:

- (a) Single phase, 120 volt, two wire
- (b) Single phase, 120/240 volt, three wire
- (c) Single phase, 120/208 volt, three wire
- (d) Three phase, 120/240 volt, four wire, delta
- (e) Three phase, 120/208 volt, four wire, wye
- (f) Three phase, 277/480 volt, four wire, wye

Service at other voltages will be supplied only in special cases at the discretion of the Company.

205 REQUIREMENTS FOR SERVICE

Shop drawings for all free standing switchgear shall be approved (in writing at customer request) by the Engineering and Metering Departments in advance of any firm commitments on each individual installation. This will assure proper spacing and bracing of bus bars, and proper switch metering sequence. (See Section 550 for Meter Department Approval.)

- A. Single phase, 120 volt, two wire, may be provided for service, not to exceed 30 amperes.
- B. Single phase, 120/240 volt, three wire, may be provided for loads not to exceed 170 kW demand.

The largest individual service disconnecting means shall not exceed 800 amperes.

Where the service disconnecting means does not consist of a single main switch or circuit breaker, the combined rating of the individual switches or circuit breakers shall not exceed 800 amperes.

The largest individual single phase motor for this service shall be 5 HP unless investigation by the Engineering Department indicates that a larger size is permissible.

EXCEPTION: A single family dwelling unit disconnecting means shall not exceed 1600 amperes.

Section 205, cont.

- C. Single phase, 120/208 volt, three wire, may be provided for services not to exceed 125 amperes or 200 amperes for dwelling units.

All services or feeders over 125 (200 for dwelling units) ampere capacity shall be three phase, four wire, and the load balanced as nearly equal as possible on the three phases. The difference in amperes between any two phases at the customer's peak load shall not be greater than 10%.

Exception, 400 ampere services or feeders are permitted if they are in listed single phase meter centers for multifamily dwellings.

- D. Single phase, 480 volt, three wire, may be provided for services not to exceed 125 amperes for dwelling units in the Central Business District with prior approval of the Meter and Engineering Departments. This voltage is only available where the building is served with 480Y/277 volts and dwelling units will be installed. Single phase, 480 volt, three wire is not available for any other purpose.

All services or feeders over 125 ampere capacity shall be three phase, four wire, and the load balanced as nearly equal as possible on the three phases. The difference in amperes between any two phases at the customer's peak load shall not be greater than 10%.

- E. Three phase, 120/240 volt, four wire, delta, may be provided for loads of 75 kW demand or less of single phase load, with appliances and/or motors requiring three phase service with ratings exceeding the limitations for single phase service or with a single motor of 5 HP or more.

The largest individual service disconnecting means shall not exceed 3000 amperes.

Where a switchgear is used and the service disconnecting means does not consist of a single main switch or circuit breaker, the combined rating of the individual switches or circuit breakers shall be permitted to exceed 3000 amperes. However, the switchgear shall not exceed 3000 amperes.

The largest individual three phase motor for this service shall be 25 HP unless investigation by the Engineering Department indicates that a larger size is permissible.

Three phase, 120/240 volt, four wire, delta service is not normally available in underground service areas.

535 METERING TOTALIZATION

The Company will permit totalization of any two or more services, which when any two are combined together will exceed the limit of the largest allowable individual service size. The above services must be in the same structure, but not necessarily in the same location.

EXCEPTION: Two meters will be totalized when the combined services do not exceed the limit of the largest allowable individual service size, provided the two services supply normal and emergency power to a critical load and a Standard Contract Rider Number 4 is collected monthly on the duplicate facilities which supply the emergency service. The duplicate meter facilities shall also be included in the Standard Contract Rider Number 4.

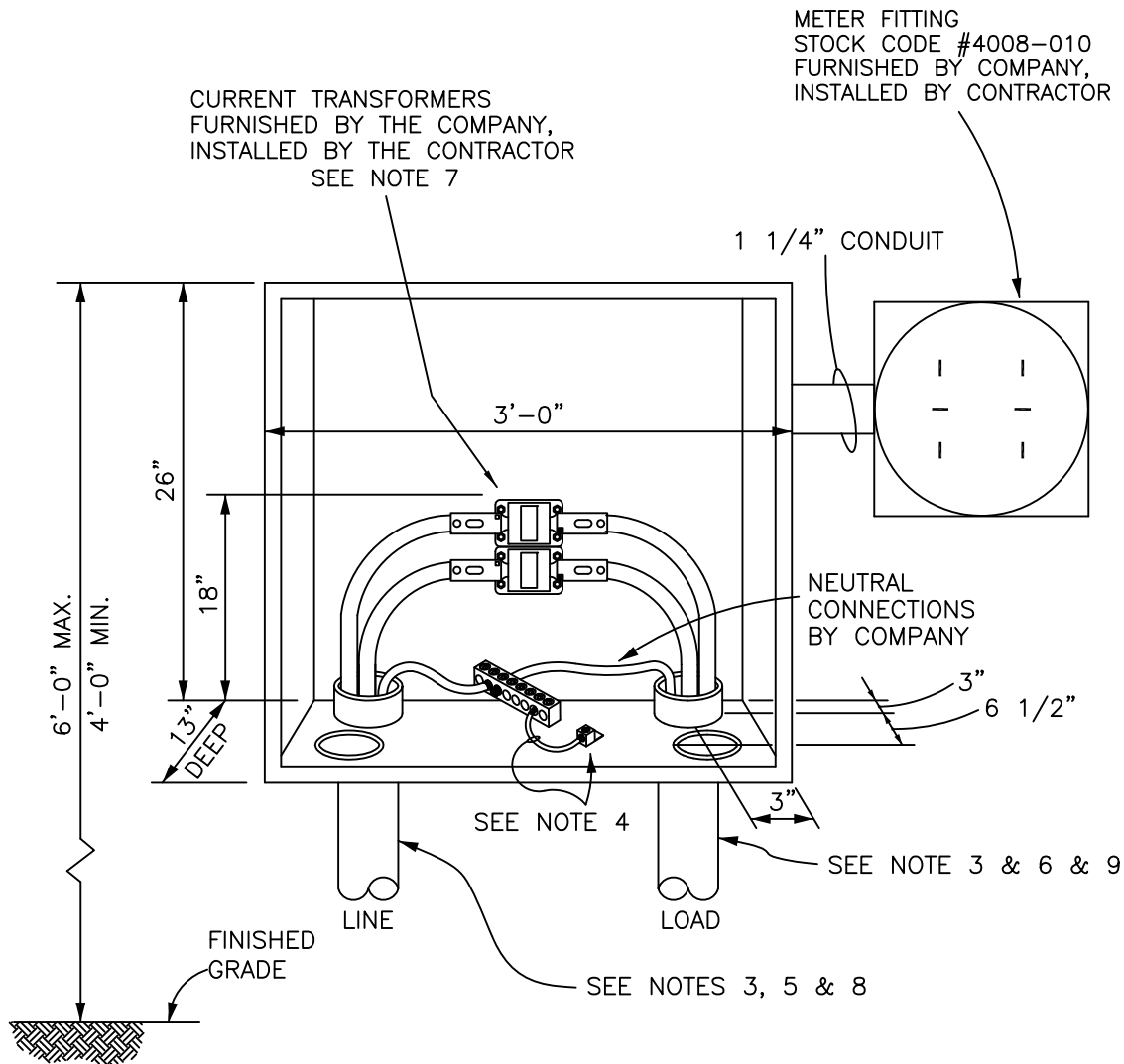
A [Standard Contract Rider Number 4](#) is defined in the [tariffs](#) that are on file with the Indiana Utility Regulatory Commission.

540 UNDERGROUND SERVICE - NON-NETWORKED AREA

When underground service is to be provided, the Company will provide a steel outdoor enclosure for a single underground service (100 to 1200 ampere inclusive).

550 SWITCHGEAR INSTALLATIONS

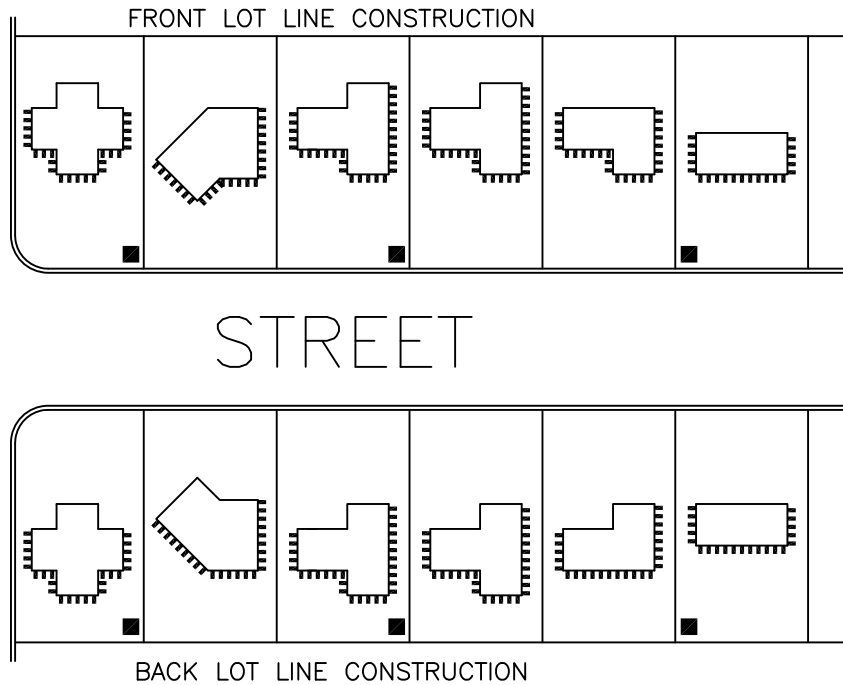
Shop drawings for all free standing switchgear shall be approved in writing for network service area and in writing at customer request for non-network service area by the Meter and Engineering Departments in advance of any firm commitments on each individual installation. This will assure proper location and arrangement of metering transformers in the switchgear. In such installations, the Company will deliver the metering transformers directly to the job site for installation by the customer's electrical contractor. Also, the meter cabinet and coded cable will be furnished by the Company for the installation by the customer's electrical contractor. The meter cabinet shall be connected to the metering compartment in the switchgear with a 1¼ inch rigid conduit provided and installed by the customer's electrical contractor. The meter fitting shall be installed at a location agreeable to both customer and the Company. (See Section 310 D for Secondary Network Service Area and Section 205 for Secondary Non-Network Service Area).



NOTES:

1. METER CABINET (STOCK #4008-138), METERING TRANSFORMERS AND CODED CABLE FURNISHED BY COMPANY, INSTALLED BY CONTRACTOR.
2. 1 1/4" CONDUIT FOR REMOTE METER, FURNISHED AND INSTALLED BY CONTRACTOR.
3. LINE AND LOAD CONDUITS MAY BE REVERSED TO SUIT CONDITIONS.
4. COPPER BONDING LUG AND JUMPER PROVIDED AND INSTALLED BY CONTRACTOR.
5. MINIMUM 4" RIGID METALLIC CONDUIT OR GRAY SCHEDULE 80 PVC INSTALLED BY CONTRACTOR.
6. ALL CONDUIT SHALL HAVE A BUSHING FOR COMPANY CABLE, IF METALLIC CONDUIT, THE INSULATED GROUNDING BUSHING SHALL BE U.L. LISTED AND BOND WIRE INSULATED.
7. THE CURRENT TRANSFORMER MOUNTING BRACKETS SHALL BE BUTTED AGAINST EACH OTHER. TOP C.T. SHALL BE AT 18".
- ▶ 8. 2-4" LINE CONDUITS LOCATED "FRONT TO BACK" ARE REQUIRED FOR SERVICES OF 600A AND ABOVE. CONDUIT SHALL NOT ENTER BACK OF CABINET.
9. MAXIMUM OF 4 CONNECTIONS TO COMPANY CT'S.

**RESIDENTIAL OUTDOOR METERING
(SINGLE FAMILY DWELLING ONLY)
UNDERGROUND INSTALLATION
120/240 VOLT, 1 PHASE, 3 WIRE
450A TO 800A SERVICE**



- COMPANY SERVICE FACILITIES
- METER FITTING SHALL BE LOCATED IN THIS AREA

NOTES:

1. THE ABOVE DRAWING SHOWS VARIOUS SHAPED HOUSES AND COMPANY FACILITIES WITH BOTH FRONT AND BACK LOT LINE CONSTRUCTION.
- ▶ 2. THE SERVICE INSTALLATION TEAM WILL LOCATE ALL SINGLE AND TWO FAMILY RESIDENTIAL SERVICES 400 AMPERES AND BELOW. SERVICES OVER 400 AMPERES WILL BE LOCATED BY THE ENGINEERING DEPARTMENT.
3. THE COMPANY WILL NOT INSTALL SERVICE CABLE TO A METER FITTING WHICH IS NOT IN PRESCRIBED AREA AS INDICATED ABOVE.
4. SEE DRAWING GB5-020 FOR INSTALLATION REQUIREMENTS.
5. SEE SECTION 565 FOR UNACCEPTABLE METER LOCATIONS.

**RESIDENTIAL METER LOCATIONS FOR
UNDERGROUND SERVICE**