A Customer Guide to Electrical Service Installation



Consolidated Edison Company of New York (Con Edison) Electric Service Requirements

Customers

Architects and Engineers

Electrical Contractors

City and County Building Inspectors

Revised February 2024

2024 Edition

(Supersedes All Previous Editions and Revisions of Electric Blue Book)

The Customer Guide to Electric Service Installation is a Guide to Con Edison requirements and specifications for establishing electric service to **new** or **remodeled applicant installations.** In addition to the utility requirements, **local or state officials may stipulate additional provisions for the installation of equipment and materials** that are in their authorized areas of responsibility and jurisdiction. Should you have any questions regarding this guide, please contact your local Con Edison Customer Service Representative (see pg. 3). Consult your assigned Con Edison representative to ensure you are using the most current standards and specifications. Applicant electric service and meter installation arrangements are subject to Con Edison's review and approval. Applicants should submit a Work Request as soon in the planning process as possible.

This document and the information contained within is referenced and compliant with CI-700-1 and New York Public Service Law

§65(15). Any changes or revisions to this document should be made with this in consideration.

DISCLAIMER: This is a guidance document for the convenience of the public. It does not substitute for any applicable laws, rules, codes or regulations, and information in it regarding procedures is subject to change without notice. It is the Licensed Electrical Contractor's responsibility to be aware of the code requirements for the area of the installation. Con Edison does not assume the obligation of enforcing State, City and Local Municipal code requirements.

A Customer Guide to Electric Service Installation

Accidents involving dig-ins to underground facilities occur every year. They can damage equipment, and more importantly, sometimes lead to serious injuries, even death. We want to reduce the number of accidents so we joined a One-Call-System designed to make it safer for you to dig and work near underground facilities. The customer shall immediately notify Con Edison of any suspected leakage or escape of gas by calling the company's toll-free hotline **1-800-75CONED** or **1-800-752-6633**.

It's the Law! Call before you dig!

Much of the Con Edison equipment that transmits and delivers energy is under the ground, including more than 4,300 miles of natural gas pipelines. We work diligently to keep our systems safe and our excellent safety record

demonstrates that commitment. New York State law requires anyone planning to dig or excavate to call a one-call center 2 to 10 days in advance. The one-call center will contact Con Edison on your behalf to obtain the necessary clearances, including the locations of all in-ground electrical and natural gas lines near your job site.



UNDERGROUND UTILITIES CALL CENTERS

NYC and WESTCHESTER: 811 NY Code 753 requires 2-10 working day's notice.

ELECTRIC AND GAS EMERGENCIES CALL 1-800-75-CONED (800-752-6633)

HEARING IMPAIRED Toll-free, teletype line (1-877-423-4372) Billing and Service inquiries

We think you should know

At Consolidated Edison Co., when we say: "We're here to help," we mean it! Our responsibility is to provide our electric customers with safe, reliable and cost-effective service. Con Edison operates one of the most complex electric power systems in the world. It is also the world's most reliable. Before you start planning your project, please visit <u>https://www.coned.com/en/small-medium-size-businesses/building-project-center</u> to create a Project Center Case using Con Edison's Project Center application. Approximately one week after Con Edison receives a case submission from your licensed contractor, you will receive correspondence indicating the name and contact number of the representative handling your case. Please utilize the "Ask A Question" feature in Project Center for specific information regarding your case. Our representatives are responsible for specific geographic territories, or districts. A list of area representatives can be found on-line at <u>https://www.coned.com/en/small-medium-size-businesses/building-project-center/contact-us</u>. We will be happy to provide you with information and assistance, as well as ways to save you energy and money.

The Con Edison System

For more than 200 years, Consolidated Edison, Inc. has served the world's most dynamic and demanding marketplace – metropolitan New York while maintaining a safe and reliable electric supply to more than 3 million customers. We have employees on duty 24 hours a day, 365 days a year to ensure the safety and reliability of our system.

This guide is intended to protect the mutual interest of our electric customer and Con Edison. Close attention and adherence to our Electric Specifications will ensure timely and efficient installation of an electric service that meets your requirements.

This guide will be revised and/or amended as required in keeping with developments and progress in the electric industry. The latest revision of this handbook may be obtained at: https://www.coned.com/en/small-medium-size-businesses/building-project-center/contractor-resources

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<u>Quick Start</u>

A. <u>Frequently Asked Questions</u>

- 1. Q How can this guide help me?
 - A This guide, entitled "Electric Service Customer Installation Guide" as a means of exchanging pertinent information between Consolidated Edison Co. (hereafter referred to as "Con Edison") and its customers, architects, electricians, engineers, builder, contractors and municipal inspectors.
- 2. Q When should I apply for electric service?
 - A An application for new, additional or an alteration to an existing service should be made as far in advance as possible to ensure adequate time for engineering and construction details to be arranged.
- 3. Q How do I initiate having electric service installed?
 - A Visit Con Edison's Project Center portal at <u>https://www.coned.com/en/small-</u> <u>medium-size-businesses/building-project-center to submit a service request form</u>
- 4. Q When should I contact Dig Safe?
 - A By law excavators and contractors working in the five boroughs of New York City must contact New York 811, at least 48 hours prior to beginning any mechanized digging or excavation work to ensure underground utility lines are marked. For safety reasons, homeowners are required to call as well. Markings are as follows:



- 5. Q How do I know if I am within safe working distance from overhead power lines?
 - A You cannot start work until Con Edison lets you know that it is safe to work in the area. For more information, please visit <u>https://www.coned.com/en/small-medium-size-businesses/building-project-center/contractor-resources</u>. Scroll down to the boxed section titled "Going to Work Near Overhead Lines?" and its associated specifications for information.
- 6. Q Where will my electric meter be located?
 - A Outdoor electric metering is a requirement on 1, 2 and 3 family homes

B. <u>Customer Request for Electric Service – "Our Service to You"</u>

Customer requests for all new or additional electric service, as well as certain non-service work, will be through our web-site <u>https://www.coned.com/en/small-medium-size-businesses/building-project-center</u> Project Center. See Work Request Flow Process located on page 10.

Step 1 Opening a Work Request/Case

When you are ready to begin the process for a new electric service or for an electric service information ruling, please have a licensed professional installer as the referred contact agent for the work request/case.

- 1. Register Project Center by visiting <u>https://www.coned.com/en/small-medium-</u> <u>size- businesses/building-project-center</u> and e-file the work request
- 2. Create a Case by completing the work request questions, as well as providing the required documents, if applicable.
- 3. Energy Services will follow-up by sending an Acknowledgement Letter confirming your request for the referenced location and the assigned Case Number to track the progress of the request
- 4. Energy Services will arrange scheduled meetings with the customer/customer's agent to discuss the preliminary electric service layout while working with the customer to ensure the most economic means are addressed and that the project is satisfactory and installed with no delays to the service completion date
- The company will determine the Point of Entry (POE) to the building. A preferred POE will be an additional cost to the customer. The property line/building line and other easement concerns will be discussed in Step 3
- 6. Tracking the job progress can be done by a registered Project Center user (customer/contractor). The registered user can also quickly review the status of current cases, receive e-mail alerts as the cases progresses and ask questions via the "Ask a Question" function.

Step 2 Electric Service Ruling

Con Edison Representative will initiate a Case Triage assessment to your job as follows:

- 1. Further review and analysis of the customer/contractor work requests
- 2. In the scenario that further analysis deems the existing electric service is not adequate, Energy Services will issue the necessary work orders to the construction department to excavate and install electric service lines according to approved engineering layouts
- 3. Customer and contractor will be issued with approved service layouts with all current company specifications, meter drawings, outlining the company and customer responsibility
- 4. Electric Service Rulings, Layouts and Cost Estimates are valid for ninety (90) days from the date of issuance

Step 3 Inspections & Electric Service Layout

Con Edison Representative, depending on the Case request type, may:

- 1. Conduct verification that the wall sleeve has been installed in the building point of entry
- 2. Discuss with the customer/contractor in obtaining the necessary city certificates related to the installation to avoid a delay in service completion
- 3. Monitor the progress of work by customer/contractor through field visits and e-mail correspondences
- 4. Encourage customer to use Project Center to track their case and obtain status updates by contacting the assigned representative in order to avoid any company delays such that the customer service date can be met
- 5. Conduct site visits to verify the status of customer's project and discuss case details and/or specifications with the customer's contractor
- 6. Discuss the details of the Electric Service Layout, the drawing which includes a sketch and description of company construction work to be performed

Step 4 Construction of Electric Service Installation

Con Edison Representative reviewing the customer's project progress will determine when to release the requests to the appropriate groups for the construction of the facilities, who may include:

- 1. Construction Management oversees third party contractors working for Con Edison on the installation of company-owned facilities
- 2. Electric Construction installs company facilities such as mains and services
- 3. Customer Operations establishes customer account and associated rates, collects payment agreement for deposits
- 4. Customer must contact Energy Services Representative to schedule a final inspection

If your project requires any transformer vault installation, refer to page 35 – Space for Transformer Apparatus, which also discusses the Developer Agreement option for vault construction.

Step 5 Final Inspection and Electric Meter Turn-On

The customer must contact the assigned Con Edison Energy Services Representative upon the completion of his/her work by submitting the Final Inspection Checklist to obtain a final inspection and the installation of an electric meter

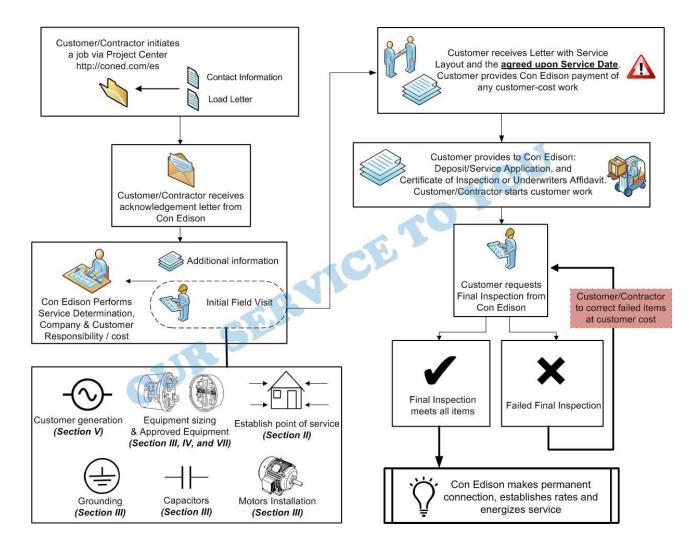
- 1. Work Order will be issued for an electric meter by Energy Services when a final inspection has been completed and passed with no deficiencies.
- 2. The electric meter is the property of Con Edison its size and type are selected based on the electric service ruling for residential and commercial dwellings
- 3. Con Edison Meter Department will deliver, set and turn on the electric service

Step 6 Validation Completed & Case Closeout

Energy Services Representative will:

- 1. Review the case work request, verify the accuracy of the customer's account and billing, as well the documentation of any revenue associated with the project.
- 2. When all the case tasks have been verified, the case is closed out

C. <u>Electric Service Work Request Process</u>



D. <u>Standard Service Layouts</u>

The Standard Service Layouts found on the following pages, reflect generally accepted designs which may be used to plan work and prepare Contractor Work Requests. Please note that these layouts are supplied for reference purposes only. A Service Request or a Case must be initiated through Con Edison's Project Center before work is commenced to ensure the sizing and timely installation of the required electric

service. Upon receipt of your Service Request, we will review the Standard Service Layout Plan selected, and return an approved copy of a Service Layout identifying the service characteristics and the point of service termination.

Standard Service Layouts for new 1, 2 and 3 family homes are found on pages 13 - 21, while layouts for new commercial buildings are shown on pages 22 - 24. These layouts may also be applicable to existing premises (1, 2 and 3 family homes, small commercial buildings, and multi-tenanted residential buildings) due to load growth which meet the following criteria:

- a. No change in the point of service termination or point of service entrance is required
- b. Existing service conduits are of an adequate size
- c. The new service will be single phase 3-wire 120/240 Volts; 3-wire 120/208 Volts; or 3 phase 4-wire 120/208 Volts.
- d. The service capacity for individual commercial customers is limited to 200 Amperes

Contractors are reminded that **FLAT CONNECTIONS ARE NOT PERMITTED** and when appropriate, meter change adapters shall be installed and the existing meter wired to the adapter. Con Edison will furnish meter adapters when requested by the contractors.

In areas where Con Edison supplies both gas and electric, it is the responsibility of the contractor to plan his work so that the company's gas and underground electric services may be installed in a common trench at the franchise area.

All work shall be done in accordance with Con Edison's requirements and the customer will obtain all necessary approvals from authorities having jurisdiction before service will be supplied. Con Edison required a minimum of 48 hours notice to arrange for the inspection of service conduits in a trench and for a final inspection.

In a new development, electric mains will not be installed prior to the installation of sewer and water mains. The roadway and the area between the property line and the curb line must be graded within 6-inches of final grade. Sidewalks should not be installed until after service cable or conduit installation by Con Edison is completed.

Con Edison will furnish service cables between customer's meter equipment and property line in accordance with established practice for one, two and three family-homes-installed and maintained by the company.

Individually prepared Service Layouts will continue to be provided by Con Edison for large commercial buildings and all other installations not covered by the Standard Service Layouts.

The following code designations are found on the Standard Service Layouts:

- C/L Curb Line
- P/L Property Line
- S/S Service Switch
- (alt/loc) Alternate Location

****GUIDELINES TO THE INSTALLATION OF ELECTRIC SERVICE LATERALS TO RESIDENTIAL DWELLINGS**

Con Edison will supply a separate service lateral to each house in the following three instances:

- All <u>DETACHED</u> houses
- 1, 2, and 3 family <u>SEMI-ATTACHED</u> homes
- 1, 2, and 3 family <u>ATTACHED</u> homes

For all other circumstances, Con Edison will supply an individual service lateral from company facilities to the property line for each 2-hour rated firewall enclosure.

E. <u>Customer/Contractor Inactivity</u>

For retail cases that are inactive for **75 Business days or more, the system will automatically send out an** email notifying the customer/contractor that their case will be cancelled unless they select to keep it open.

To: <customer> <contractor< th=""><th>r></th></contractor<></customer>	r>
Subject: < <case inactivity-m<="" td=""><td>C-xxxx, Service address>></td></case>	C-xxxx, Service address>>
Dear <<.CustomerFullName>	>>,
Due to inactivity, the above r days.	eferenced case has been marked to be cancelled in the next 10 busines:
Do you want us to ca	ancel the case?
Yes, cancel the case.	No, keep the case open.
You must select any of the o days.	options above, if not the case will be auto cancelled in 10 business
Note: Once a case is cancelle cancelled, you will have to file	ed, it cannot be re-opened. If you wish to move forward after the case is e a new service request.
Thank you,	
Energy Services. conEdison	

The customer or contractor MUST respond to this email if the case is to remain open

Exceptions to Case Inactivity are as follows:

- 1. If the case Type is an Electric Temporary Service Request
- 2. All **3rd party** (5G Installation) cases will remain active
- 3. If the Project Name or the Customer name matches with any government agency
- 4. If the Email address of any of the customers end with the suffixes mentioned in the **attachment or ends with .gov and .edu**
- 5. In the region of Westchester if the case types are NCG, NRG, ACG or ARG.

Original Exception Criteria implemented March 2021

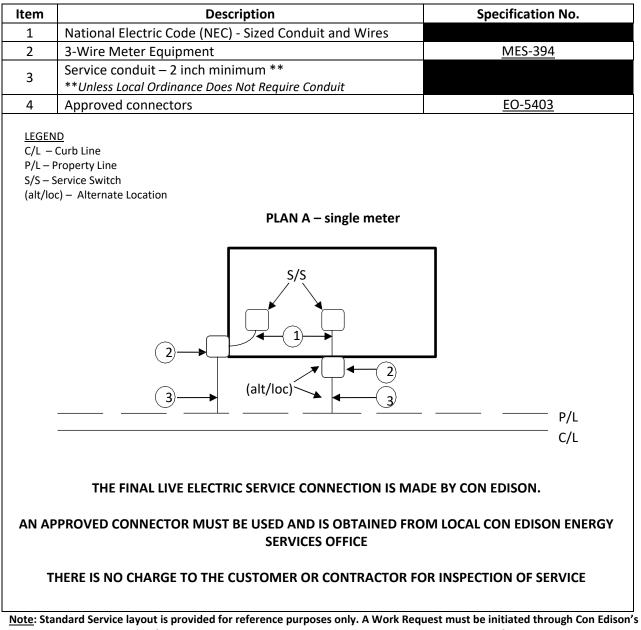
NEW DETACHED HOME – ONE, TWO AND THREE FAMILY Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required electric service

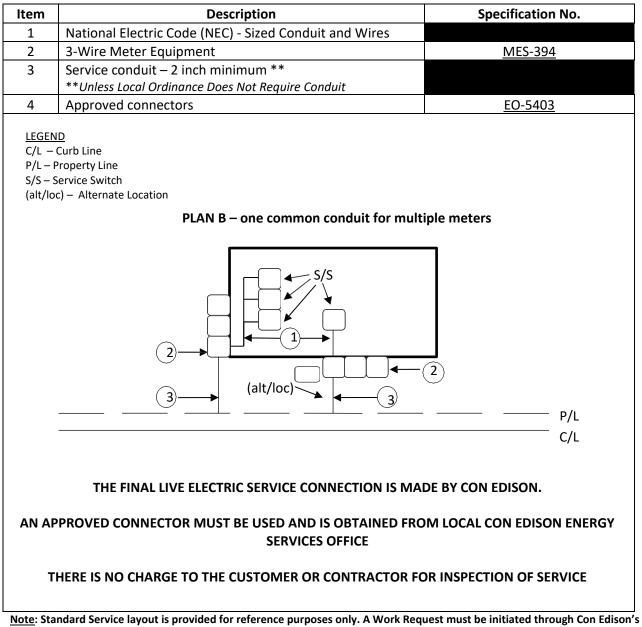
NEW DETACHED HOME – ONE, TWO AND THREE FAMILY Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



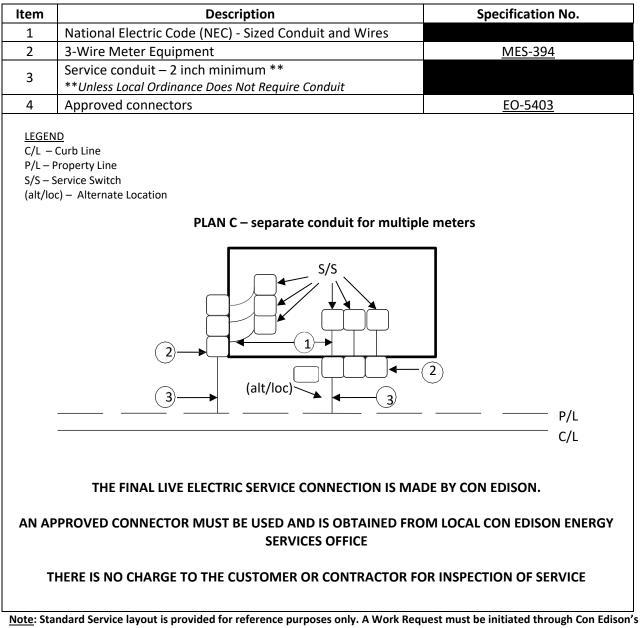
NEW DETACHED HOME – ONE, TWO AND THREE FAMILY Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



Specifications for Electric Installations

Consolidated Edison Co. Inc NEW DETACHED HOME – ONE, TWO AND THREE FAMILY Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts

tem	Description	Specification No.
1	National Electric Code (NEC) - Sized Conduit and Wires	
2	3-Wire Meter Equipment	<u>MES-394</u>
3	Weatherhead and Standpipe	<u>EO-6218-B</u>
э		<u>EO-8746-B</u>
4	Approved connectors	<u>EO-6218-B (Table 4)</u>
(ait/10	c) – Alternate Location PLAN A	
		•

P/L C/L

THE FINAL LIVE ELECTRIC SERVICE CONNECTION IS MADE BY CON EDISON.

AN APPROVED CONNECTOR MUST BE USED AND IS OBTAINED FROM LOCAL CON EDISON ENERGY SERVICES OFFICE

THERE IS NO CHARGE TO THE CUSTOMER OR CONTRACTOR FOR INSPECTION OF SERVICE

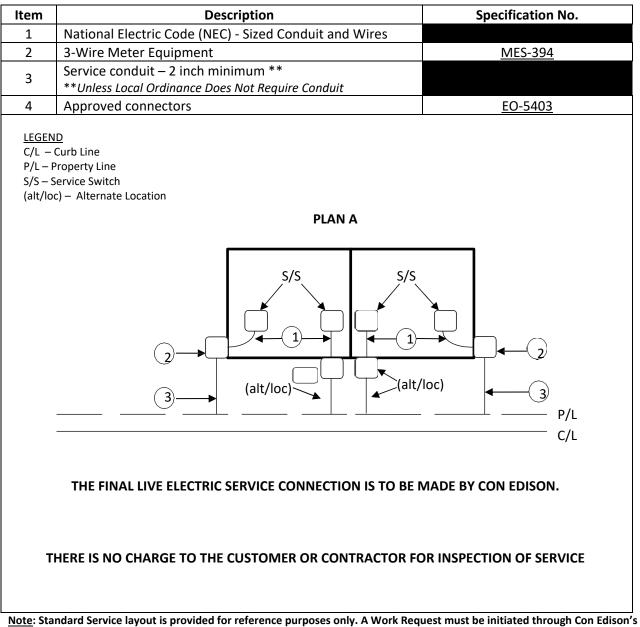
NEW SEMI-ATTACHED HOME – ONE FAMILY Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



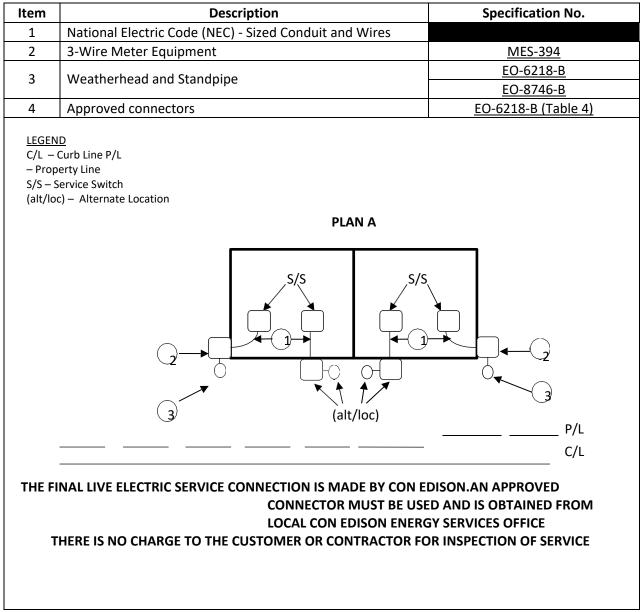
NEW SEMI-ATTACHED HOME – ONE FAMILY Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



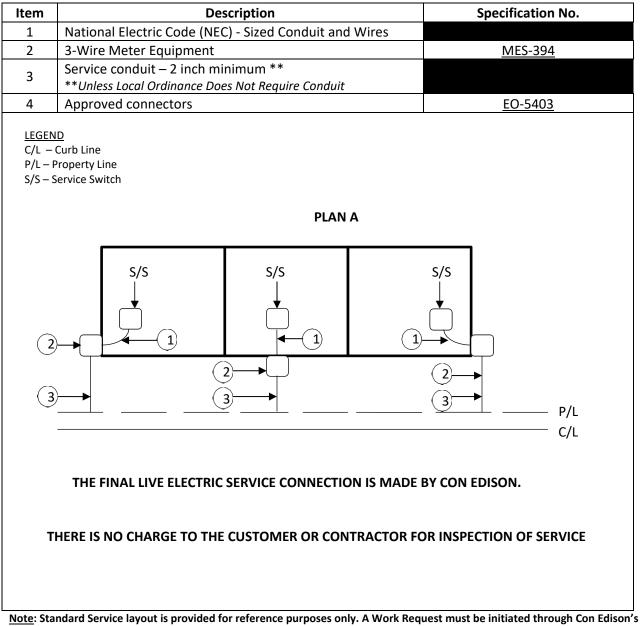
NEW ATTACHED/ROW HOMES – ONE FAMILY Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



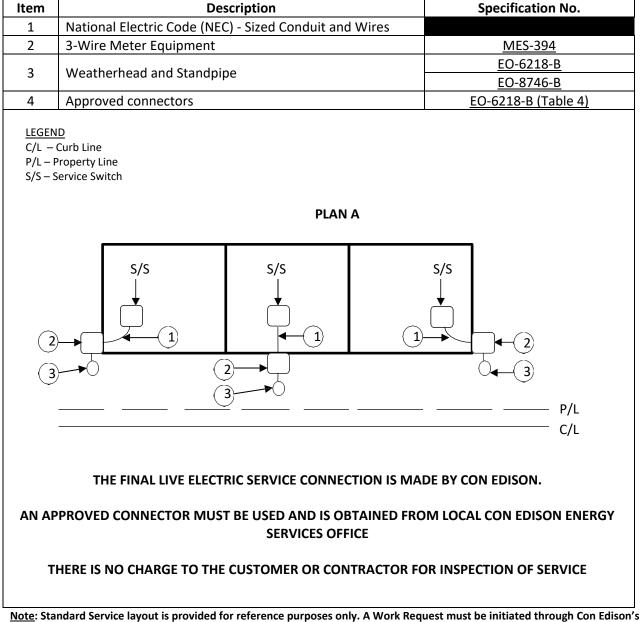
NEW ATTACHED/ROW HOMES – ONE FAMILY Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts



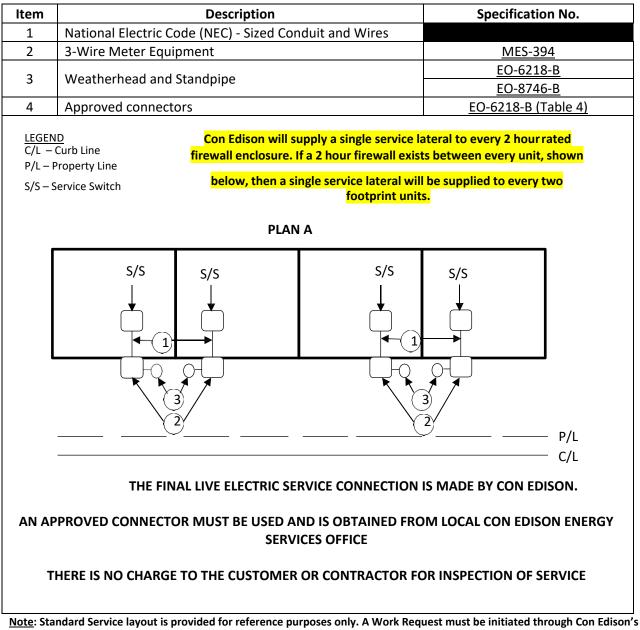
NEW ATTACHED/ROW HOMES – ONE, TWO AND THREE FAMILY Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts

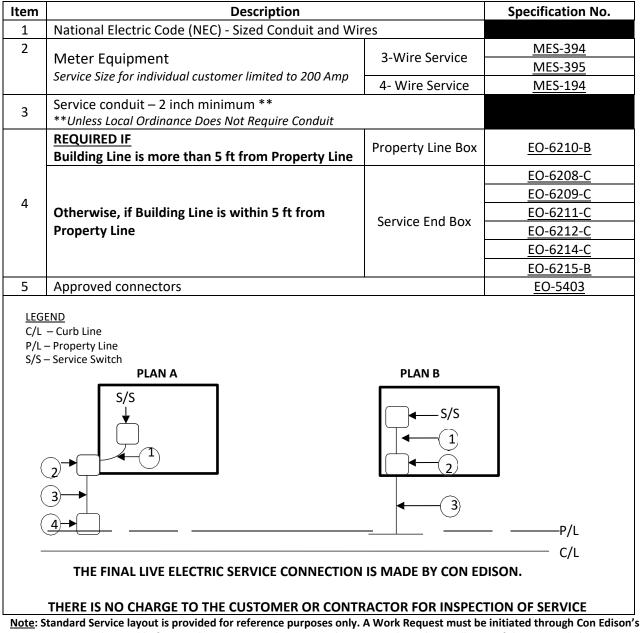


NEW SMALL COMMERCIAL BUILDING

Not applicable if Building Line is 200 feet or further from the Property Line (Work By Customer)

UNDERGROUND SERVICE CHARACTERISTICS

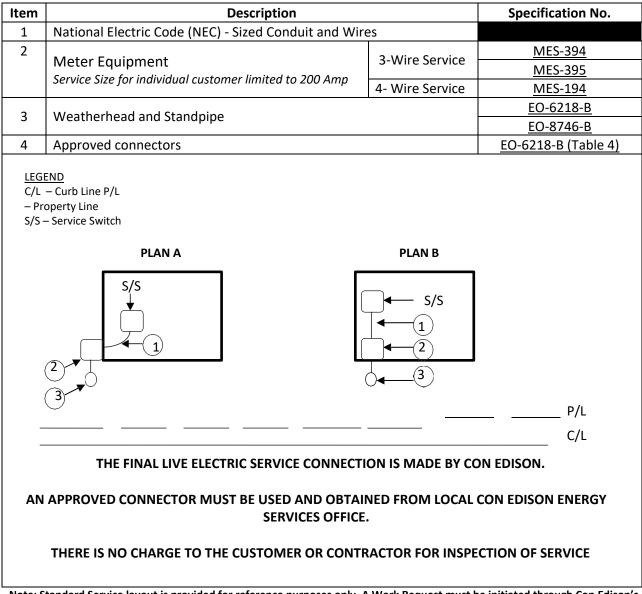
1 Phase, 3-Wire, 120/240 Volts or 1 Phase, 3-Wire, 120/208 Volts or 3 Phase, 4-Wire, 120/208 Volts



NEW SMALL COMMERCIAL BUILDING Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts or 1 Phase, 3-Wire, 120/208 Volts or 3 Phase, 4-Wire, 120/208 Volts



<u>Note</u>: Standard Service layout is provided for reference purposes only. A Work Request must be initiated through Con Edison's Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required electric service

NEW MULTI-TENANTED RESIDENTIAL BUILDING DIRECT METERED Not applicable where Con Edison's service lateral exceeds 125 feet (Work By Customer)

OVERHEAD SERVICE CHARACTERISTICS

1 Phase, 3-Wire, 120/240 Volts

or

1 Phase, 3-Wire, 120/208 Volts

or

3 Phase, 4-Wire, 120/208 Volts

Item	Description	Specification No.			
1	National Electric Code (NEC) - Sized Conduit and Wires				
2	 Meter Equipment When there are more than six meters, the main service disconnect will be on the line side of the meter equipment Separate service switch(s) and appropriate meter equipment(s) may be required for owner <u>and/or other non-residentialload.</u> 	<u>MES-447</u>			
3	Weatherhead and Standpipe	<u>EO-6218-B</u>			
		<u>EO-8746-B</u>			
4	Approved connectors	<u>EO-6218-B (Table 4)</u>			
– Pr	- Curb Line P/L operty Line - Service Switch PLAN A S/S (2) (3)				
-		P/L			
-		C/L			
	THE FINAL LIVE ELECTRIC SERVICE CONNECTION IS MADE BY CON EDISON.				
AN APPROVED CONNECTOR MUST BE USED AND OBTAINED FROM LOCAL CON EDISON ENERGY SERVICES OFFICE.					
	THERE IS NO CHARGE TO THE CUSTOMER OR CONTRACTOR FOR INSPECTION OF SERVICE				

<u>Note</u>: Standard Service layout is provided for reference purposes only. A Work Request must be initiated through Con Edison's Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required electric service

Section I - General Information

A. <u>Purpose</u>

The information in this handbook provides a basic and uniform set of specifications and guidelines covering the installation of electric service for Con Edison's customers. The codes we have referenced and the information provided in this booklet in no sense relieves the customer of the responsibility to install customer equipment in accordance with the latest revisions of applicable governing codes that are listed in the Reference section. It is the Licensed Electrician Contractor's responsibility to be aware of the code requirements for the area of the installation. Any change or modification to our Electric Service Layout(s) or equipment type including location and point of entry (POE) requires advanced approval from Con Edison. Our Electric Specifications have been prepared to ensure compliance with all the various codes and safety requirements. Changing anything without prior approval from Con Edison, will result in the **job not being accepted**, requiring a contractor to make corrections, and causing potential delays. Corrections to point of entry and equipment configurations will incur an additional expense to the customer and/or licensed contractor. Altering an electric specification creates the potential for a code or safety violation. The customer should always feel free to consult a Company Representative regarding safe practices and practical applications of electric installation and equipment connection.

Representatives are available to discuss design details while in the planning stage



Con Edison does not assume the obligation of enforcing State, City and Local Municipal code requirements

B. <u>Scope</u>

The information and specifications found in this handbook cover conductors and equipment connecting the company's electric supply system to the customer's electrical distribution system, and other subjects associated with the supply of electricity which of mutual interest to the company, customer, architect, engineer and electrical contractor. This handbook is intended as a guideline and is not a complete set of rules governing the installation of electrical wiring and equipment.

C. <u>Application for Service</u>

Con Edison requires a company application for new or additional electric service requests. To ensure a timely service connection, your application should be submitted well in advance of the date service is required. All customers are required to consult with the company regarding service availability before the completion of plans, purchase any equipment and before any construction commences on a facility that you plan to connect to the company's electric distribution system. An application for new and additional electric service may be made through Con Edison's customer Project Center portal via the internet. The portal can be accessed through Con Edison's Energy Services Resource Web Site at

<u>https://www.coned.com/en/small-medium-size-businesses/building-project-center</u>. Submitting an application for service using the Project Center application ensures an immediate response along with confirmation the application was received. The customer or his/her contractor must furnish Con Edison with information on the proposed electric service installation or any increase in the required electric load.



Con Edison Electric Service Layouts, Service Rulings and Cost Estimates are valid up to <u>ninety-days</u> (90) from the date of issuance



D. <u>Contact Information</u>

To contact a Con Edison Energy Services personnel about your specific job, please visit <u>https://www.coned.com/en/small-medium-size-businesses/building-project-center</u> and click on "<u>Energy</u> <u>Services Contacts".</u>

E. <u>Rates & Terms of Service</u>

The rates and terms of service under which Con Edison provides electric service are set forth in the schedules (also referred to as "tariffs") filed with the New York State Public Service Commission ("NYS PSC"), which regulates the state's electric, gas and steam utilities, and approves their rates and terms of service. The Company's schedules on file with the NYS PSC – including current, pending and cancelled or superseded tariff leaves – can be found on the NYS PSC's website located at http://www.dps.ny.gov

The rates and terms of service shown on the Con Edison's website are provided for your convenience and do not replace or provide an authorized substitute for the official schedules (including the rates and terms of service) and the Statements of rate adjustments on file with the NYS PSC. The Company does not guarantee that the Summaries available on this website reflect the rates and adjustments contained on the Statements filed with the PYS PSC and in effect, or that the tariff leaves, Statements, and Summaries shown on this website reflect the most recent filings made with the NYS PSC.

Note: The leaves pages in tariffs found on the Company's website may have headers and footers that differ from the official leaves on file with the NYS PSC. THE NYS PSC marks its official leaves with receipt and actual effective date "stamps" and with information on cancelled or superseded leaves that may not be shown on the Company's leaves found at <u>Con Edison: Rates and Tariffs - Electric Rates and Tariffs</u>

F. Identification of Con Edison Employees

In an effort to protect customers from unauthorized persons representing themselves as Con Edison company employees, each of our employees has an identification card that will be shown upon request.

G. Access to Customer's Premise

The Customer shall not permit anyone, except authorized employees of the Company, to the meters, equipment or any other property of the Company, and shall not interfere or permit interference with the same; and the Customer shall be responsible for their safe keeping on the Customer's premises. The Company's duly authorized representatives shall have the right of access to the premises of the Customer and to all of the Company's property thereon at all reasonable times for the purposes of reading and testing meters, inspecting equipment used in connection with its service, installing, inspecting, maintaining and replacing, where necessary, its load testing equipment, removing its property.

H. <u>Customer Cooperation</u>

It is the desire of Con Edison to provide and maintain dependable, safe and satisfactory electric service in a courteous and efficient manner. Cooperation from our customers and/or their agents is always necessary to ensure we can evaluate and process each electric service request in a timely manner.

I. Information Inquiries

Con Edison will assist the customer and/or his/her contractor with any questions or concerns regarding the physical application of our specification requirements. Company Service Representatives are available to receive inquiries and process requests for information regarding the application of these electric specifications.

J. <u>Electric Service Layouts</u>

Individual detailed Electric Service Layouts will be provided to the Customer's Contractor on all applications for electric service. A number of Standard Service Layouts are found in the Quick Start Section and reflect generally accepted designs which may be used to plan work, prepare Contractor Work Requests and reference the associated Electric Specifications required.

K. <u>Company Specifications</u>

Company specifications will be revised or amended as required by developments and progress of the industry to protect the mutual interests of the customer and Company, and is made available by visiting our website at https://www.coned.com/en/small-medium-size-businesses/building-project-center. It is the customer's responsibility to ensure that she/he is referencing and using the most current specifications.

L. <u>Responsibilities</u>

The Customer, his/her Agent and/or Contractor bears the responsibility of maintaining all customer wiring and associated equipment to be in a safe operating condition.

M. <u>Wiring Adequacy and Load Balancing</u>

Proper wiring adequacy and load balancing is the responsibility of the customer. The customer's Engineer or Licensed Electrical Contractor should assist the customer in determining that the electrical installation will have adequate capacity for future use and that the load is properly balanced for the customer's use.

N. <u>Codes</u>

Customer's wiring installations are to be made in accordance with, and approved by the authorities having jurisdiction, in addition to complying with Company specifications.

O. <u>Approvals</u>

In order to comply with the New York City Administrative Code and local municipal statutes, the customer's contractor will apply to the authorities having jurisdiction and obtain the appropriate certificate of inspection. Generally an electric certificate is required for the addition, alteration, installation, maintenance, reconnection, replacement or repair of any customer owned electric wires and cables.

P. <u>Inspection</u>

The Company will inspect the wiring and equipment from the point of service termination to, and including, the service equipment and meter equipment for compliance with Company specifications.

Q. <u>Characteristic of Electric Service</u>

In every case, the customer should consult the Company as to the characteristics of service to be supplied to the Customer, before purchasing electrical equipment for any new installation or for additions to or replacements of existing installations or before moving electrical equipment to a new address. A written statement regarding the characteristics of the service to be supplied will be given by the Company to the Customer upon request.

Standard Service is derived directly from the standard system of distribution and comprises:

- Three phase, 4-wire, 120/208 volt service
- Single phase, 2-wire, 120 volt

• Single phase, 3-wire, 120/208 volt service, comprising two conductors and the neutral of the three phase, four wire system

When warranted by the magnitude or location of the load, or other physical and economical conditions, three-phase, 4-wire, 265-460 volt service may be designated by Con Edison, subject to the customer's concurrence. Where such service is supplied to a new building, no service of other characteristics will thereafter be introduced into the building unless done for Con Edison purposes.

Con Edison reserves the right to discontinue service where equipment used by the customer results in objectionable effects upon, or interferes with the operations of Con Edison facilities or other customers.

R. <u>High Tension Service</u>

Each situation of high tension service presents an individual problem. Accordingly, it is important that the customer consult Con Edison before making plans for the use of high tension service. High tension service will be designated only where it is warranted by the magnitude and the location of the load or by other physical and economic conditions.

High tension service will not be supplied to customers for whom the Company designates secondary service from the Company's secondary mains. For more information about high tension service, refer to Section VI – "High Tension Service" of this document.

S. <u>Temporary Service</u>

Where the use of service will be temporary, such as for entertainment, celebrations, fairs, construction purposes and any similar activity of a temporary nature and where the facilities installed will not be used for permanent supply, the customer will be required to pay in advance to Con Edison – a sum of money, as determined by Con Edison and endorsed upon the agreement for such service, which shall be the estimated non-recoverable cost of service installation and removal in addition to the energy used.

Service entrance, meter and other wiring on temporary installations are to be installed in the same manner as required for permanent installations. Inspections and approval by the authorities having jurisdiction is required prior to Con Edison making service connection.

T. <u>Excess Distribution Facilities</u>

Upon written application on the prescribed form, and subject to the terms and provision applicable thereto set forth in the current Rate Schedule, the company will provide at the customer's expense, distribution facilities in excess of those normally provided for the purpose of supplying equipment, the operation of which involves inrush current above the values otherwise allowed by the company, or for the purpose of providing a service lateral in addition to that otherwise provided for supply to the customer's premises.

U. <u>Un-Metered Connection (Flat)</u>

Unauthorized un-metered (flat) connections are prohibited. Repeated occurrences of the installation of unauthorized flat connections by a contractor will result in a termination of service and the issuance of a formal complaint to the appropriate authorities. Where the installation of a bypass meter pan is required, the bypass lever is designed to provide continuity of service when a meter replacement is required and NOT as a means of obtaining service prior to a meter being set.

V. <u>Service Taps</u>

All connections between company wires and customer wires will be made with a Con Edison-approved connection device.

The customer shall provide and connect service cables to a suitable permanently attached Copper or Aluminum buss detail where there will be 3 or more sets of customer cables our of a service end box.

While the preferred place for service taps or additional meters is in the service end box, it is permissible for them to be made in other locations such as the troughing between the service end box and the meter equipment and on the line side of the service switch if the lugs are designed for double lugging.



However, the customer and contractor must be aware that all trough and service switch connections are subject to the approval of the authorities having jurisdiction and must meet the applicable code requirements.

In addition, the adequacy of Con Edison's service cables is determined up to the point of service termination and does NOT include the customer cables between the service end box and the taps for any additional meters in the troughing.

Service taps for additional meters MAY NOT be made in the metering equipment, including current transformer cabinets, or at other locations than the service end box or the service switch and troughing as mentioned above, unless authorized by a Company representative.

The unauthorized connection of Con Edison's electric service or any alteration thereof by anyone except those approved by Company-authorized personnel is **prohibited by the penal law and punishable as a**



misdemeanor and/or a felony, if done with the intent to injure or defraud. Violators of this rule will be prosecuted. The law provides that the user of such a connection is presumed to have made or consented to the unauthorized connection and is punishable therefore, unless proven to the contrary, as well as the party making the unlawful connection.

W. <u>Unauthorized Attachment to Poles</u>

Con Edison forbids the unauthorized attachment of any flags, banners, signs, clothes lines, antennas etc. to any of its poles. It forbids the use of its poles for placards or other advertising matter. Con Edison will remove any such unauthorized attachment without notice and may prosecute any such trespassing.

X. <u>Submetering</u>

Company supplies electric service to a single location, through a master-meter, at bulk rate. In turn, electricity is distributed to tenants through individual meters, owned and billed by the owner(s).

In all cases, the customer/contractor shall consult with the company regarding submetering. Refer to the Reference Material for a summary of the availability for the submetering option.

Y. Distributed Generation

Con Edison defines a distributed generation (DG) facility as a generally small (up to 20 MW) electric production facility that is dedicated to the support of nearby associated load. For greater efficiency and cost savings, combined heat and power (CHP) DG can produce heat as an energy product. DG can utilize both renewable (photovoltaic, wind, water, farm waste, etc.) and non-renewable energy sources (natural gas or other fossil fuels for conventional engines, turbines and fuel cells.) Regardless of the kind of DG

electric output (AC or DC at various voltage levels), the DG must conform to company standards when connected to the utility's electric, gas or steam system.

The Company permits any customer to operate generating equipment in parallel with the company's electric system, provided there is no adverse effect on the company's other customers, equipment, or personnel, or the quality of service. Certain protective devices (relays, circuit breakers, etc.) when specified by the company, must be installed at all locations where the customer desires to operate generation in parallel with the company's system. Customers may also purchase natural gas or steam from the Company if required for operation of their DG.

For more information, refer to Section 8 – "Customer Use of Generating Equipment" and visit the online information available at <u>Con Edison: Rates and Tariffs - Electric Rates and Tariffs</u>

Z. Special Services at Cost

Upon the request of a Customer or agent of the Customer, the Company will perform the following special services and charge the Customer or the Customer's upon the basis of cost to the Company as defined in "Definition of Cost":

- 1. Install temporary services
- 2. Change the point of service termination or location of the service lateral
- 3. Relocate Company-owned or jointly-owned pole, provided that the City, Town or Village will issue an order at the Customer's request to relocate any existing street lighting equipment
- 4. Make temporary changes to Company facilities to permit the moving of a building or equipment from one location to another
- 5. Temporarily relocate underground service to City-owned or Company-owned lamppost, traffic standard, or similar facilities
- 6. Relocate Company street facilities to accommodate Customers
- 7. Remove and relocate Company facilities when a street is to become private property
- 8. Install underground service from Company's overhead lines on the street
- 9. Provide kilowatt demand pulses for single and/or coincident demand meters
- 10. Inspect, maintain, repair and replace transformers and related service facilities for Customers receiving high tension service which is metered on the low tension side of the transformer
- 11. For a Customer served under Rider N, prepare emergency supply plan and storage facility; provide if requested, store, maintain and test the mobile generating equipment associated with the Rider N service; transport the generating equipment to the Customer's service address; and supply personnel and fuel to operate the generating equipment.

- 12. Perform incidental environmental remediation work on Customer premises associated with the Company's performance of its transmission and distribution service obligations.
- 13. Interrupt or restore service to a Customer's premise to accommodate internal maintenance and/or repair activities, provided that the charge is not applicable when such service interruption or restoration is performed between 7 A.M. and 3 P.M., Monday through Friday, excluding holidays.
- 14. Perform engineering work when the Company must design non-standard specifications for structures to house the Company's transformers and associated equipment on the Customer's premises to address site-specific conditions
- 15. Expose the Customer property line splice box to determine the fault location of cable, when the fault is not located within a Company facility; provided, however, that there will be no charge for exposing the property line splice box to a 1, 2 or 3 family house

Definition of Cost

The cost to be charged for the furnishing of the special services listed in the "Special Services at Cost" consists of the following elements of cost where applicable

- a) Labor of the Company organization unit involved at average payroll rate plus related expenses and indirect costs. Overtime and Sunday rates will be charged where applicable
- b) Material at the average actual storeroom price plus 14.5% for handling costs (sales taxes to be added where applicable)
- c) Use of transportation vehicles at rates covering operation, maintenance, carrying charges, and taxes
- d) Contract work and sundry vendors' bills at invoice cost, including any taxes contained thereof
- e) Use of large tools and equipment at rates covering operation, maintenance, and carrying charges
- f) Corporate overhead for engineering, drafting, administration, and inspection at 20% of the foregoing items, provided, however, that when the labor cost for engineering and drafting is separately stated, corporate overhead for administration and inspection at 4%
- g) Salvage credit at storeroom price of materials reduced by salvaging cost, or at junk value
- h) Governmental permits or licenses necessary to perform the service
- Mobile generating equipment for service under Rider N at invoice cost, including any taxes contained therein, if purchased or at reproduction cost new less accrued depreciation if from on-hand equipment plus costs incurred in purchasing, including acceptance inspection and testing (sales taxes to be added where applicable)
- j) Fuel for mobile generating equipment operation at invoice cost, including any taxes contained therein
- k) Use of real property at a rate covering operation, maintenance, carrying charges and taxes

The above-described costs, where applicable, shall be increased to reflect the percentage increases in Rates and Charges, as per the current Electric Tariff.

Section II – Electric Service Connections

A. <u>General</u>

- Electric service will be supplied to a building or premises through a single service line, except where, for reasons of least cost to the Company, conditions on the Company's distribution system, improvement of service conditions, or magnitude of the Customer's load, the Company elects to install more than one service line.
- 2. Requests for additional service lines will be communicated to the assigned Company representative. Additional service must be pre-approved and are subject to Excess Distribution Facilities (EDF) charges to be paid by the customer. Excess facilities will be provided at the discretion of the Company.
- 3. The Company reserves the right to determine the location and the point of service termination of its service line.
- 4. Any change requested in the point of service termination or location of the service line and associated facilities requires the approval of the Company and will be made at the expense of the requesting customer, who shall pay the cost of such change in advance.
- 5. Any distribution, supply, or service line which the Company is required to install and has installed, or the customer has installed on the company's behalf, in whole or part, shall be maintained, repaired, and if necessary replaced, up to the service termination point.
- 6. When new lines are to be placed underground, all rights-of-way and easements are to be delivered to the company and grade such right-of-way to within six inches of final grade prior to the company installing its facilities.
- 7. The company's determination to designate overhead or underground service will be governed by the current Schedule for Electric Service on file with the New York State Public Service Commission.
- 8. The minimum service entrance and service equipment is three-wire, 100 ampere.

B. Extensions of Electric Distribution Lines

1. New Residential Subdivisions

To avoid misunderstanding, the customer must consult with the company before starting work as to: whether overhead or underground service is to be installed; the exact location of the point of service connection from existing company system to the property being developed; the point of service connection to each building within the subdivision.

Where new lines are to be placed underground, all rights of way and easements required to provide the service shall conform to municipal and company requirements as to surfacing and drainage and must be graded to within 6-inches of final grade prior to the company installing its facilities.

The company's determination as to overhead or underground service will be governed by the current Schedule for Electric Service on file with the New York State Public Service Commission

2. Overhead Service Connection

If the company designates overhead service, the company will install its service conductors from its street system to the first point of attachment on or near the front face of the building or to the first intermediate supporting structure i.e., customer pole on the customer's property which, in such case, shall be the point of service termination. The company's service lateral will not exceed 125-feet in length.

The customer shall furnish, install and maintain, in accordance with the company's specifications, all supporting structures on the customer's premises and all service conductors and equipment beyond

the first supporting structure, including the standpipe, weather head and service entrance conductors on the building.

3. <u>Underground Service Connection</u>

The company will install a service lateral from a street system to the property line or suitable subsidewalk space, which in such cases shall be the point of service termination. However in the case of new one, two or three family houses the company will install up to 100 feet of service lateral including the portion beyond the property line.

Residential 1, 2 and 3 family homes, where the property line and the building line are the same, the company will extend its service cable THROUGH A SWEEP, PROVIDED BY THE CUSTOMER ON THE OUTSIDE OF THE BUILDING TO A METER PAN. In such case this point must be the point of Con Edison's service termination. However, should a residential 1, 2 and 3 family home require a current transformer cabinet for metering, company service cable will not be permitted to terminate inside the cabinet. A service end box will be required for the point of service termination at the line side of the current transformer cabinet.

For all commercial, industrial, and multiple occupancy buildings (except for semi-attached row houses containing four or more dwelling units) where the building is back of the property line, and if, in the company's judgment, the cost to the company of extending its service cables into the building is not materially more than the cost of terminating its service conduit and cables at the property line, and if the service cables can be installed in one continuous pull from the street, then the company may extend its service cables into the building.

a. Residential

In the instances of a 1, 2 or 3 family detached homes; two-1 family semiattached/row homes, the company will install an individual service lateral to each house terminating at the property line.

In all other instances the company will supply an individual service lateral from its street system to the property line for each 2-hour rated firewall enclosure. However, if a 2-hour rated firewall exists between every unit, then a single service lateral will be supplied to every 2 footprint units.

b. Non-Residential For commercial and indust

For commercial and industrial buildings, where the distance from the property line to the point of service entrance at the building is greater than 5-feet or the overall length of a required splice box or manhole plus two feet, the company must terminate its service in a box or manhole to be installed by the customer adjacent to the property line. In such a case, this point must be the point of company service termination.

Where a property line splice box is designated, the construction must be according to EO-6210-B. Where a property line splice box is not designated, a service end box may be required and the construction will be according to EO-6208-C, EO-6209-C, EO-6211-C, EO-6212-C, EO-6214-C, and EO-6215-B._Refer to EO-6215-B for details on how to convert existing overhead service to underground service as part of the Westchester Selective Underground program.

C. Space for Transformer Apparatus

Where the company considers transformers and associated equipment reasonably necessary for the adequate supply of service to a customer or customer's premises, the customer shall provide suitable space and reasonable access thereto, without rental charge. To facilitate access and ventilation, such space shall, wherever practicable, be adjacent to the property line and should be outside the building and immediately below street grade.

Where space for transformer and associated equipment is at or immediately below street grade and adjacent to the property line, the Company, at its expense, will construct the transformer enclosures abutting the property line and will assume any compensation payable by the Company to the municipal authorities for any necessary sub-sidewalk transformer vaults and splicing chambers, and the Company will furnish, install and maintain the transformer and associated equipment therein.

Whether you're constructing a new building or adding electric load to an existing one, Con Edison strongly encourages you to contact us early in the design process to discuss your transformer vault requirements. This step will help you to avoid unnecessary and costly design changes or delays that may result if these requirements are not incorporated into your final building design.

Typical transformer vault space requirements depend on the number of transformers required to supply electricity to your building. In addition, there may be an incremental customer cost to supply service at your requested point of entry. Your final service design will be developed after Con Edison receives your contractor work request and/ or load letter with details of your entire building's new or additional electrical requirements.

Where transformer vaults are to be installed, the point of company service termination must be indicated on the Space Allocation Drawing and on the Service Layout



Developer Agreements

To facilitate your building's construction activities and provide you with full control of your service installation, we encourage you to install the transformer vaults and associated facilities under a developer's agreement. This agreement will allow you to maintain control of the site and all construction logistics, thereby eliminating the

utility vaults from your critical path. Con Edison will reimburse you at standard company prices to perform this work. For additional information on Developer Agreements, contact your assigned Con Edison project manager.

<u>This document</u> contains information which will assist you in planning for your building's electric service configuration and installation of sidewalk transformer vaults.

D. Interior Distribution Installation

At the request of the customer, the Company's transformers and associated equipment may be by the Customer at one or more points in the building or premises on the same or different levels, provided that the entire service installation within the premises, including the installation of, and connections to the Company's transformers and associated equipment, or replacements thereof, is made at the customer's expense in accordance with the Company's specifications

E. <u>Replacement for Reinforcement of Rear Yard Services</u>

Upon customer's request for reinforcement of an existing rear yard service, the customer shall be required to provide the necessary service entrance facilities to receive service from the Company's street distribution system in the front, if a street distribution system in the front already exists. The rear yard system shall stay in use for the remaining customers.

a) Supply a new service from the street facilities, providing the customer supplies service entrance facilities to the property line. The installation of the service equipment shall be in accordance with company specifications. Provisions must be made to maintain the service to the other customers on the rear yard pole line.

b) Provide service from our rear yard facilities if they are adequate for the proposed additional load.

Standard Service Layouts are not applicable in this instance and the customer/contractor must consult the Company prior to commencing any work.

F. <u>Replacement for Reinforcement of Loop Services</u>

Upon customer's request for reinforcement, the Company may:

- a. Reinforce the existing main service from the street facility to the point of service termination, provided the conduit on customer's property is of proper size (minimum 1- ½ "diameter). Existing loop service to remaining customers shall be maintained as required; or
- b. If a reinforcement is required within the loop, the Company shall reinforce the existing loop. The Company shall bear the cost for residential customers in 1, 2 and 3 family homes only
- c. When a customer is remodeling his/her basement and relocation of conduit and cable that provides service to other customers on the loop is required, the conduit and cable to be used in the basement will be supplied and installed by the Company at customer expense.

a) Supply a new service from the street facility, providing the customer supplies service entrance facilities to the property line. The installation of the service equipment shall be in accordance with Con Edison's specifications. Provisions shall be made to maintain the loop service to other customers.
b) Reinforce the existing loop service provided the loop conduit is a minimum of 1½-inches in diameter.

c) If the loop conduit is less than 1½-inches in diameter, the contractor has the option of either replacing the loop conduit with one that is 1½-inches in diameter or larger, or replacing the loop cables with the required size in the existing loop conduit. If the contractor elects to replace the conduit with the larger size, the company will then reinforce the cables in the new conduit.
d) Back to back services will no longer be reinforced. In the event that a back to back service exists, the company will provide a separate service. The new service will be overhead (if available), or underground. However, the remaining loop service will remain.

Standard Service Layouts are not applicable in this instance and the customer/contractor must consult the Company prior to commencing any work.

G. Minimum Insulation Standards for Existing Dwellings Converting to Electric Heating

An existing dwelling will not be supplied electric service for the purpose of converting to electric space heating unless:

a. The roof/ceiling has at least six inches of insulation or insulation with an R value of 19 or greater. In the case of a dwelling having a flat roof or having four or more stories, compliance with the roof insulation standard will not be required if four or more inches of insulation are already in place or if insulation can be installed only by means of cutting an opening in the roof.

- b. The dwelling has storm windows, or thermal windows with multiple glazing. In the case of a dwelling having six or more stories, storm windows will not be required as long as the Company certifies that the dwelling's windows are caulked and weatherstripped. This certification shall be made in writing to the Public Service Commission. A storm window will not be required on any window opening onto a fire escape.
- c. The entrances have storm doors or thermal doors

Con Edison may waive the requirements where:

- The applicant for service can establish through two estimates, one of which may be a Company audit, that the purchase price and installation charge (excluding interest charges) will be greater than seven times the anticipated annual savings to be obtained (based on the present costs of the fuel currently used in the building)
- ii. The dwelling is a historical building
- iii. Other measures have been taken so that the overall heat loss for the building envelope does not exceed the total heat loss which would result from conformance with the minimum insulation standards. Such heat lost calculation must be certified by a licensed architect or engineer

Copies of waivers granted or denied by Con Edison shall be made available to the Public Service Commission. Applicants denied waivers shall be informed of their right to appeal that denial to the Public Service Commission.

Electric service will not be provided to any premises subject to this minimum installation standard until an executed Certificate of Compliance has been furnished to Con Edison. Con Edison's Certificate of Compliance form can be found in the Electric PSC Tariff – PSC 10 – General Rule 7.6.5 - Leaf 76.

Waiver requests must be submitted to Con Edison using the Company's "<u>Request for Waiver – Minimum</u> <u>Insulation Standard</u>" available online, or also on Exhibit B.

<u>Section III – Customer's Installation and Equipment</u>

A. Customer Wiring and Equipment

Wherever it is provided that the Customer shall perform any work or furnish or maintain any equipment or facilities, the Customer shall do the same or cause the same to be done at the Customer's expense.

The Company will determine the location and specify the type and manner of installation and connection, of the service terminating equipment and of the metering equipment and will furnish this information to the Customer upon request. The Customer shall obtain this information as one of the first steps in planning the electrical installation.

All construction by the Customer from the point of service termination to and inclusive of the meter equipment shall be subject to approval by the Company.

The Customer shall furnish, install, and maintain all wiring and equipment, including standpipes, conduits, fittings, wires, cables, fuses, end boxes, service switch, meter equipment (except meters and metering transformers), and meter wiring, beginning with the point of service termination. The Customer shall furnish, install and maintain the facilities necessary to accept outdoor meter(s) wherever feasible when service is provided to a new one-, two-, or three-family home or when the service conduit to an existing one-, two- or three-family home must be replaced in response to a Customer's request for an upgraded service.

B. Adequacy and Safety of Installation

Con Edison shall not be required to supply electric service until the Customer's installation has been approved by the authorities having jurisdiction over the same; and Con Edison further reserves the right to withhold its service, or discontinue its service, whenever such installation or part thereof is deemed by the Company to be unsafe, inadequate or unsuitable for receiving the Company's service or to interfere with or impair the continuity or quality of the Company's service to the Customer or to others.

In cases of 1, 2 and 3 family homes where the service has been deemed adequate by Con Edison, licensed electricians are permitted and have the option to make the final electric service connection between Con Edison's service conductors and the customer's service entrance conductors using company approved connectors. Final connections made without approval from Con Edison are not permitted.

<u>Please consult with your Con Edison Energy Services representative prior to performing any work and</u> <u>review Con Edison specifications for clarification on installing approved final connectors. Final</u> <u>connectors for overhead and underground service are available for order upon request.</u>

In all other instances, the final connection for making the service alive shall be made only by Con Edison.

C. Customer's Repairs

All repairs to the Customer's installation and equipment shall be made by the Customer, and the Customer shall maintain the installation and equipment in the condition required by the authorities having jurisdiction and by the Company.

D. <u>Carrier Current Equipment</u>

If a Customer uses the building wiring for a carrier current system for communication or signaling purposes, the Customer shall install suitable filter equipment or make other provisions approved by the Company to keep the Company's distribution facilities free from carrier currents produced by the equipment.

E. Motors and Miscellaneous Apparatus

Before installing motors or miscellaneous apparatus, the Customer shall consult the Company regarding the characteristics of the service to be supplied and the manner in which the equipment may be connected. It is important that the characteristics of motors, motor starting equipment, and miscellaneous apparatus, such as welders and X-rays particularly in the matter of inrush currents, shall be such as not to impair the quality of service rendered by the Company to any of its Customers.

Considerable latitude in the amount of inrush current is permissible under certain conditions and the Company will give a written expression of opinion to any Customer as to the acceptability of the Customer's proposed installation in this respect. The Company, however, shall not be understood at any time as giving any assurance or warranty, expressed or implied, that particular conditions may not later require change, unless inrush currents are within limits specified by the Company as acceptable in any case.

For welders, X-rays and other inherently single phase apparatus requiring inrush current in excess of the values allowed by the Company, the Customer shall provide rotating equipment for converting from three phase to single phase, or other equipment such as capacitors, to reduce inrush current to a value acceptable to the Company.

If miscellaneous appliances, such as furnaces, heaters and ranges, having 120 volt elements are supplied from 3 or 4 wire services, the elements should be so connected between the line wires and neutral that the operating current unbalance will be a minimum.

F. Service Equipment

Each service entrance is to be provided with disconnecting means and overcurrent protection. The service equipment may consist of one, but not more than six disconnects grouped at a readily accessible point near the entrance of the service conductors. Where more than six subdivisions of the service are desired, a main service disconnect is required and must be located before the meters.

The service equipment shall be installed in clean, dry, readily accessible location, a clear space of at least 6-inches shall be provided around all equipment such as end line box and copper detail box installations and there must be a clear space of at least 3-feet in front of all equipment for all company forces to work on, as near practical to the point of service termination. The depth of the working space in the direction of live parts shall not be less than 3 feet. When the nominal voltage to ground exceeds 151 Volts, the minimum clear distance can vary up to 4 feet as required by the National Electric Code (NEC), Article 110.

All service equipment shall be approved by authorities having jurisdiction over the same. In addition, all service end boxes, current transformer cabinets and meter mounting equipment shall be approved by Con Edison. For installations of customer's service equipment having a total rating in excess of 800 Amperes, the customer shall submit drawings of the proposed service equipment to ascertain that it is in compliance with the company's requirements as to service end boxes and metering arrangements. A list of Con Edison's approved equipment is given in Section VII titled "Approved Electric Service Equipment."

Per the Gas Yellow Book, gas meters may not be installed within 3 feet of sources of ignition. A service end box should be treated as a potential source of ignition and therefore to align with the Gas Yellow Book, all new service end boxes will need to have 3 feet of clearance from a gas meter. This shall apply to new projects with a new point of entry or an existing customer with a change in the point of entry. Existing customer equipment configurations will not be impacted. Furthermore, a reminder that per the Gas Yellow Book an "electric panel box" is a source of ignition. A main disconnect switch is a type of an electric panel box. Although the main disconnect switch is customer equipment, keep this in mind when selecting gas meter locations for new projects with a new point of entry or an existing customer with a change in the point of entry.

Upon written request, the company will determine the short circuit current available from its system at the point of service termination.

Connections made ahead of the main service equipment for fire pumps, exit lights, control power for circuit breakers, etc., shall be provided with disconnecting means and overcurrent protection adequate for the connected load. Such connections shall be made only where specifically approved by the company and the authorities having jurisdiction and may require an additional meter.

The customer is to install service equipment which meets the following requirements:

- a. A voltage rating suitable to the service
- b. An ampere rating which is adequate for the initial and the anticipated future load current requirements. The device shall be capable of interrupting load current equal to its ampere rating
- c. A short circuit current interruption capability at values specified by the company.

It is recommended that any under voltage tripping devices required by the customer be arranged to trip individual feeder circuits rather than the main breaker.

G. Grounding



The authorities having jurisdiction in this area require that the ground conductor, the service neutral, and the metal housing of the service equipment shall be connected together at the service equipment.

In New York City

Where available, active electrically continuous metallic underground water piping shall be used as a ground and connected within the first 5-feet of the water service point of entry, regardless of the location of the water main valve

In Westchester County

In an industrial and commercial buildings or structures where conditions of maintenance and supervision ensure that only qualified persons service the installation, interior metal water piping located more than 5-feet from the point of entrance to the building shall be permitted



The grounding connection is part of the Electric Inspection Checklist. Con Edison representative will verify that the connection has been connected prior to energizing the service or setting the meter. **Gas service or fuel piping system cannot be used as a ground.**

Section IV - Metering Installation

A. <u>General</u>

Outdoor metering is required for all new service installations to one, two and three family detached, semidetached and row houses.

B. Company Furnishes and Installs

All electric service to a customer at a single location will be rendered through a single meter except as hereinafter provided. The company will furnish, install, connect and maintain such meter or meters as are necessary for metering electric energy and demand for Con Edison billing purposes

C. Company Furnishes, Customer Installs

Con Edison will furnish and the customer shall install and connect current transformer on initial installation and upon subsequent alteration to the main cable or bus circuit.

When meter change adapters are required, Con Edison will furnish and the customer will install.

D. Customer Furnishes, Customer Installs

The customer will furnish, install and maintain all wiring and equipment, including stand-pipes, conduits, fittings, wires, cables, fuses, end boxes, service switch, meter equipment (except meters and metering transformers) and meter wiring, beginning with the point of service termination.

All cabinets, conduit fittings and equipment enclosures containing un-metered conductors shall be made sealable before service will be energized.

The wiring to meter equipment shall not be enclosed in the same conduit or trough compartment as wiring leading from meter equipment. The customer will furnish and install meter wiring between metering transformers or meter equipment and the meters, but the company will make the final connection of such wiring to the meters. Where external demand metering devices are required in addition to the watt-hour meters, the Customer or the Customer's Meter Service Provider shall furnish, install, maintain, and remove, as necessary, meter equipment for such devices.

Please note:

To be billed for coincident maximum demand under the provisions of the current Tariff, the Customer shall: (a) Furnish and install all necessary conduit and wiring the between the watthour meters and

- associated metering devices or provide remote communications capability at each meter for connection either by the Company or the Customer's Meter Service Provider, and
- (b) Maintain the impulse wiring connecting the meters and/or the remote communications equipment which permits the determination of coincident demand

When changing from sub-metering to direct tenant metering, all meter mountings whether for 2, 3, or 4-wire bottom-connected meters are to be replaced with approved watt-hour meter sockets.



Con Edison approved locking device hardware must be provided and installed by the factory or contractor on all metering equipment and service end line boxes designated to accept such services

E. Meter Mountings

1. Self-Contained Meters: 120/208 V or 120/240 V Services

- a) A 4-jaw meter socket shall be installed for 2-wire single phase self-contained service. Load wiring from the meter for the conductors shall not exceed the sizes shown in Table I
- b) A 4-jaw meter socket shall be installed for 3-wire two phase 240V service. Load wiring from the meter for the conductors shall not exceed the sizes shown in Table I
- c) A 5-jaw meter socket is to be installed for 3-wire two phase 120V/208V service. Load wiring from the meter for the conductors shall not exceed the sizes shown in Table I
- d) A 7-jaw meter socket is to be installed for 4-wire three phase self-contained service. Load wiring from the meter for the conductors shall not exceed the sizes shown in Table I
- e)Where the socket meters are to be installed for commercial and industrial customers, the meter sockets are to be equipped with bypass facilities, with the exception of Temporary Services. The Temporary Service Customers will make the decision to install approved meter socket equipment with or without bypass facilities with their knowledge that non bypass equipped equipment will result in a service interruption when the meter is removed.

NOTE: Bypass facilities are not required for PL&P meter sockets in two and three family houses

- f) Where socket meters are to be installed for residential customers, the meter sockets can be equipped with bypass facilities at the customer's request.
- 2. Meter Sockets Installations for Street Celebrations, Bazaars and Other Events Requiring Temporary Service
 - a) A 4 or 5-jaw meter socket should be installed for 2 or 3-wire load wiring from the meter
 - b) A 7-jaw meter socket should be installed for 4-wire load wiring from the meter

Socket-type Meter	Maximum Size of Line Conductor	Maximum Size of Load Conductor
Outdoor Trough Type	2/0 AWG	1/0 AWG
4- or 5-jaw	*500 Kcmil	*4/0 AWG
Outdoor-Indoor Box Type	3/0 AWG Copper Type RH	3/0 AWG Copper Type RH
4- or 5- or 7-jaw	3/0 AWG Copper Type R or T 250 Kcmil Aluminum	3/0 AWG Copper Type R or T 250 Kcmil Aluminum

TABLE I Socket-type Meter and Maximum Line and Load Conductor Sizes

*For residential use only

F. <u>Current Transformer Meters</u>

A current transformer meter mounting is to be installed for 4-wire loads for conductor sizes larger than the following:

- 3/0 AWG Copper Type RH
- 4/0 AWG Copper Type R or T
- 250 Kcmil Aluminum

The distance between a current transformer cabinet and the associated meter equipment shall not exceed 10 feet, without prior company approval. Meter wiring should not exceed 25-linear feet in length.

Current transformers are to be installed on the line side of the service disconnect where permitted by the Regulatory Authorities having jurisdiction. However, in the case of a 265/460 V service, there must be a means of disconnect on the line side of the CT meter, except as follows:

• On all 265/460 V installations, when a single customer is to be supplied by the service, we shall continue the practice of allowing the meter in front of the service switch.

- On all 265/460 V installations with multiple customers, we will allow a meter in front of the switch in cases where the customer is obligated by law to install a fire pump or alarm system. On all other customers, a switch is to be installed in front of the meter.
- On all new 265/460 V installations, without a switch in front of the meter, the Energy Service personnel must issue a Work Authorization to Electric Meter and Test (M&T) to install a meter and wiring prior to energizing service.

Current Transformers Mounting Specifications are listed in the following tables, Table II and Table III

	Maximum Size and Number of Conductors	Current Transformer Specification No.
А. В.	1 or 2 - 500 Kcmil or smaller copper cables per phase, OR 1 or 2 - 750 Kcmil or smaller aluminum cables per phase.	<u>MES 142</u>
А. В.	Two cables per phase larger than 500 Kcmil copper or 750 Kcmil aluminum, or Bus with a maximum current carrying capacity of 1600 amps shall not exceed 4-600	<u>MES 298</u>
	Kcmil copper or 5-500 kcmil copper or 5-750 Kcmil aluminum cables per phase.	
А. В.	A capacity greater than 4-500 Kcmil copper or 4-750 Kcmil aluminum cables per phase A vault takeoff rated 1, 280 amperes or more to a single customer.	<u>MES 377</u>

TABLE II

For installation of Current Transformers with MES 142, MES 298 and MES 377 cabinets, the minimum height clearance shall be 2-feet-0-inches from the bottom CT, in the cabinet, to the floor. The maximum height clearance shall be 7-feet-0-inches from the top CT, in the cabinet, to the floor.

TABLE III

As of June 1, 2013 all new electric meter installations / upgrades must have socket meter equipment installed. As of June 1, 2013 A- base equipment listed below is for reference purposes only specific to equipment installed prior to June 1, 2013.

Trans A Cabinet for low voltage 200 Amp or 400 Amp service Maximum cable size 1 set of 600 Kcmil or 2 sets 4/0 AWG copper	<u>MES 745</u>
Trans. S Cabinet for low voltage - 200 Amp- 400 Amp service Maximum cable size 1 set of 600 Kcmil or 2 sets 4/0 AWG copper	<u>MES 755</u>
Trans. A Cabinet for low voltage 400 Amp to 800 Amp service Maximum cable size 2 sets of 600 Kcmil AWG copper	<u>MES 750</u>
Trans S Cabinet for low voltage 400 Amp to 800 Amp service Maximum cable size 2 sets of 600 Kcmil AWG copper	<u>MES 757</u>

G. Outdoor Metering

For outdoor metering (Self-Contained Meters), refer to MES 394 and Standard Service Layouts.

1. New Installations

Outdoor metering is required for all new 1, 2, and 3 family homes.

2. Relocation of Meters from Indoors

- a) When a customer on underground service desires that the electric meter be relocated from indoors to the outdoors, it is necessary to divert the existing service entrance conduit to the outside. The electric service will be diverted directly to the outdoor meter installation so that no un-metered service enters the building.
- b) When a customer on an overhead service desires that the electric meter be relocated from indoors to outdoors, it is necessary to relocate the point of service termination to the face of the building.
- c) On loop services there will be no relocation of meters outdoors.

3. Mandatory Relocation to Outdoor Meters



When an increase in load for a 1, 2 or 3 family home requires a change in the customer's service equipment which includes the installation of new service entrance pipe or standpipe, the metering equipment must be mounted outdoors at a location where the meters will be directly accessible for reading and testing.

4. Aesthetics

Although it is not mandatory, in the interest of aesthetics it is permitted for meter equipment and piping to be painted so as to blend in with the location on which it is being installed. Screening with shrubbery or fencing is also permitted as long as the meters are still accessible for meter reading and replacement, and also meeting all clearance requirements, see **Part J - Location** of this section for more details.

H. Indoor Metering

For Indoor Metering (Self-Contained Meters), refer to MES 395, 447,194 and Standard Service Layouts. Company meters are to be connected on the line side of all customers' energy-consuming devices. Requests for installation of such devices are to be made to Con Edison prior to installation.



When an increase in load for 1, 2 or 3 family homes requires a change in the customer's service equipment which includes the installation of new service entrance pipe or standpipe, the metering equipment must be mounted outdoors at a location where the meters will be directly accessible for reading and testing.

When the existing service disconnect for a 1, 2 or 3 family homes is on the load side of the meter socket and the installation of an additional meter socket(s) or replacement of an existing socket(s) necessitates the replacement of the existing disconnect, the meter sockets are then to be placed on the line side of the service disconnect.

I. Fire Alarm System Metering

When fire alarms are activated they must remain energized as long as there is utility electric power provided to a building including those times when main disconnect switches are opened for fire responses.

There are numerous ways to meter the fire alarm while complying with the New York City Electrical Code, with the 2 most prevalent listed below:

1. If the building is master metered, that is, service enters the building and is metered before the main

service switch, for example via a 377 cabinet, the fire alarm can be connected to the load side of the PL&P meter current transformers and ahead of the main service switch.

2. If the building has individual tenant meters the service enters the building and usually goes to a main service switch before going to the individual meters. This type of installation requires a separate meter installed ahead of the main disconnect switch feeding the fire alarm exclusively. Connecting the fire alarm to a meter after the switch would not meet the NYC Electrical Code.

Under both scenarios above the fire alarms will remain energized even if the main service switch is opened for the fire response.

For other installations which do not comply with the above 2 scenarios please be advised that there are other possible scenarios that comply with NYC Electrical Code while ensuring that fire alarms are metered.

In Westchester County, if there are concerns associated with fire alarm metering design, be sure to consult with the Authority Having Jurisdiction for guidance and approval.

For 120/208 or 120/240 volt services a socket type meter pan shall be installed on the line side of the main service switch for a two or three wire feed to the fire alarm system. The meter pan shall be marked "FIRE ALARM" in RED and the account set up in the owner's name.

For 265/460 volt services there will be a PL&P meter (377 cabinet) ahead of the main service switch. Fire alarms for these shall be on load side of the metering CT's and on the line side of the main service switch.

J. Location

Meter mounting equipment for all watt-hour meters and for demand meters shall be so located that the meters will be accessible for reading and testing, and shall be free from vibration and not exposed to mechanical injury.

Meter mounting equipment in a multiple dwelling (other than semi-attached or attached/row houses) or a commercial building shall be located in a public or common area, preferably in a public or common area, preferably in the basement or cellar, but the installation in public or common area on upper floors may be accepted and is subject to Con Edison's approvals.

Mounting equipment for watt-hour meters, demand meters, relays and instrument transformers shall not be installed in Class I "Hazardous Locations" as defined by the National Electrical Code (NEC) and the Electrical Code of the City of New York nor in any similar locations deemed hazardous by Con Edison or regulatory authorities having jurisdiction. **Note:** Class 1 Location is defined by the NEC as a location where flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Meter mounting equipment shall not be located over a doorway, on the wall of an elevator or dumbwaiter shaft, in a toilet, in a stairway, in a coal bin or directly under any steam, water or drain pipes. The indoor meter equipment shall not be located above or within 36-inches of any receptacle containing flammable gases or liquids. Outdoor commercial meter equipment **shall not be located** within 24-inches of any receptacle containing flammable gases or liquids.

Indoor meter equipment must have a horizontal minimum clearance of 36-inches of either side of a gas meter. Indoor meter equipment may not be placed under or above a gas meter.

Note:

If field conditions prevent the obtaining of the 3 foot required clearance, it is permissible to erect a barrier between the electric and gas meters provided all other normal clearances for gas and electric meter installations are met. The barrier should be a permanently fixed, fire resistant partition or wall such as 3/8-inch sheetrock on either side of a frame made from 2-inch x 3-inch lumber, extending from the floor to the ceiling and 24-inches out from the wall. Barriers of other materials may be accepted but must be submitted to the company for approval before erecting.

Outdoor meter equipment may be placed to within 12-inches of a gas meter. See page 48, "Spacing Requirements-Gas and Electric Meters/Outdoor and Indoor".

Meter equipment installed in any recess or enclosures shall comply with MES 528.

Meter mounting equipment shall be set plumb and level and shall be securely fastened in a manner acceptable to the company. It is recommended that bolts and expansion shield or anchors be used on brick, stone and concrete walls and toggle bolts be used on hollow tile, terra cotta and plaster walls. Con Edison will not accept nails, wood plugs, or dowels as a means of fastening equipment, cleats or backboards, and will only approve of installations completed in a manner acceptable to safe construction standards.

Indoor/outdoor installations of single meters or single horizontal (side-to-side) rows of meters, where practicable, shall be installed so the meter center line opening is 4 feet 6 inches minimum to 5 feet 6 inches maximum above finished grade level.

Indoor/outdoor installations of vertical meters (up and down) consisting of four or less meters, where practicable, shall be installed so the highest meter center line opening is 4 feet 6 inches minimum to 5 feet 6 inches maximum above finished grade level, as long as the lowest meter socket is not less than 2-feet minimum from meter center line opening to finished grade level.

Indoor/outdoor installations of vertical meters (up and down) consisting of five or six meters, shall be installed so the highest meter center line opening is 5 feet 6 inches minimum to 6 feet 6 inches maximum above finished grade level, as long as the lowest meter socket is not less than 2-feet minimum from meter center line opening to finished grade level.

For proposed meter elevations that exceeds the maximum limits listed above, consult with your Energy Services representative- a physical accommodation may be approved to permit safe access to the meters.

The height of current transformer meters installed together with current transformer cabinets shall be determined in accordance with the current transformer height specifications. See MES 142, 298, 377, 745, 750, 755 and 757.

Meter mounting equipment in grouped installations shall be installed to provide a minimum distance of 10-inches between meter centers. A minimum distance of 6-inches is required between meter equipment. Horizontal rows of watt-hour meter sockets shall be mounted with a minimum vertical distance of 10-inches between centers and the space between rows shall be kept clear. A clear space of at least 3-inches is to be provided between horizontal rows of bottom-connected meter mountings.

A clear space of at least 6-inches shall be provided around single or grouped installations and there must be a clear space of at least 3-feet in front of all meters.

Note:

Premises located in Coastal Flood Areas: effective October 1st, 2021, for all new premises being constructed in coastal flood areas, customers are expected to comply with FEMA designated flood zones/lines requirements and consult with the authorities having jurisdiction in their respective area to determine suitable locations for meter mounting equipment. Please consult with your ESD representative prior to beginning construction and all meter mounting equipment must comply with Con Edison installation standards and specifications as well as approved inspections by energy services.

K. Identification of Circuits

The external demand meter location shall be selected so that pulse wiring requirements are at a minimum.

When the power supply for other auxiliary devices is taken from one of the watt-hour meters in a coincident demand group, the auxiliary devices shall be located adjacent to that particular watt-hour meter. When that power supply is taken from the service disconnect the demand meter shall be located adjacent to the nearest watt-hour meter.

Where more than one meter is installed, the meter equipment and distribution panel shall be marked by the customer to indicate exactly the portion of the building supplied. The characters shall be permanent, legible and stenciled three-quarters of an inch to one and one-half inches in height.

All critical loads should be segregated and its switchgear marked to be identified as per NEC and the Regulatory Authorities Having Jurisdiction. This marking will expedite the restoration of service in the event of an emergency.

In multi-tenant buildings, the designation on each meter equipment shall be the same as the permanent designation of the apartment, store, office or loft, etc. which it serves.

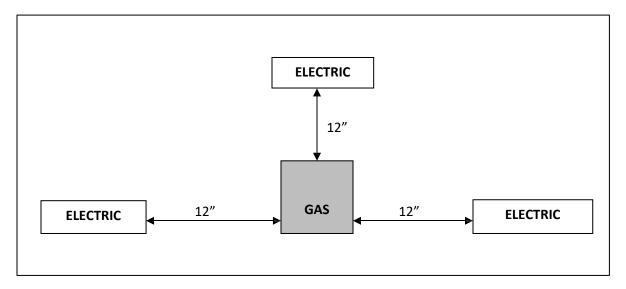
L. Seals



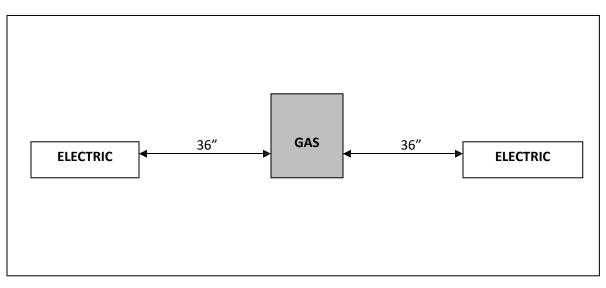
Con Edison will seal all meters, meter equipment and other enclosures on the line side of the meter. No person, except a duty authorized employee of Con Edison, will be permitted to break or replace a seal or to alter or change a meter or its connections or locations. Routine meter unlocking is to be requested via Project Center and scheduled through your assigned Con Edison commercial service representative (CSR).

M. Spacing Requirements between Gas and Electric Meters









N. Smart Meter (AMI) Communication Requirements

Application

The following provides installation and construction requirements for customers designing indoor electric meter rooms and equipment rooms within large buildings that may challenge communications coverage. These requirements will address below-grade and multiple above-grade meter rooms such as those that may exist in high-rise buildings to ensure Con Edison's Advanced Metering Infrastructure (AMI) meters for customers are established on the mesh network. Meters must communicate with each other and, ultimately, to access points using a mesh radio frequency network. Access Points act as the communications link to transfer meter data back to Con Edison. The following provisions are required for indoor meters rooms in buildings of a minimum of 50,000 Gross Square Feet or at least 5 stories tall to ensure Itron communication access and performance. Any building or structure which is entirely below-grade must be reviewed by Con Edison's AMI Operations Center for a custom solution.

Information

Special provisions provided by customer to facilitate the installation of (AMI) technology:

- 1. Access by Con Edison personnel for installation and replacement of radio frequency (RF) equipment
- 2. Electric Meter bank/room configuration/layout drawing(s) for all meters including Parts Supplied for each meter pan, including if a meter pan shall be assigned for AMI communication only (see item #8)
- 3. Pathways of no greater than 50' for RF signal propagation without prior Company approval
- 4. All conduits shall be roped twice (2 separate ropes) to assist with pulling operation
- 5. All conduits shall be rigid metallic, sealed, fire-rated and proofed by the customer, as applicable by local building, fire, and/or electrical code
- 6. Conduit cap: a temporary cap, of the same size as the conduit, shall be placed on the end of the conduit next to the meter panel
- 7. Conduit bends: any bend must have bending radius of at least 4 inches and follow appropriate NEC requirements
- 8. Conduits for antenna installation may not terminate inside metallic enclosures
- 9. For each low tension 120V meter bank/room, a socket-type ringed meter pan without bypass switch (Form 1S, 12S, 16S) in the meter bank or separately mounted, as approved in the Con Edison Electric Blue Book with line-side power to accommodate Socket Access Point installation by the Company. Please refer to MES-528 Space Requirements for Metering Closets.
- 10. At each vertical plane of meter rooms, a 2" conduit from the closest to grade meter room to the outside of the building with one of the following two mounting apparatuses permanently installed on outside wall 8'-10' above grade for the purpose of mounting external antennas
 - a. Minimum 8" x 8" x 6", NEMA 3, PVC/Fiberglass/Non-Metallic enclosure with conduit opening within and an accessible front cover
 - b. ¾" hole trunk groove "L" Bracket with a minimum 2" bending radius from bracket base to top of conduit opening
- 11. At each vertical plane of multiple meter rooms, a 2" conduit between floors is required to accommodate antennas
- 12. For Con Edison natural gas customers, a 2" conduit from the closest electric meter room to accessible location in the gas meter room, sealed and rated to local building & fire code

Con Edison to Furnish, Install, and Maintain the following:

- 1. Placement of ancillary RF equipment (access point)
- 2. Placement and mounting of antennas (remote external antenna)

3. Reseal any conduits used for antenna with appropriate sealant (EO-100023)

Please review the drawings on the following pages which illustrate these required provisions. The minimum requirements in this bulletin should not preclude other Con Edison requirements/specifications or applicable building, fire, and/or electrical code requirements.

Because many of the buildings and situations where these provisions will be required are custom in nature, design plans must be submitted to your local service planner for review by the Energy Service Representative. Communicating early in the design process will allow for additional site-specific review and allow for integration of these provisions into the building plans.

Specifications for Electric Installations

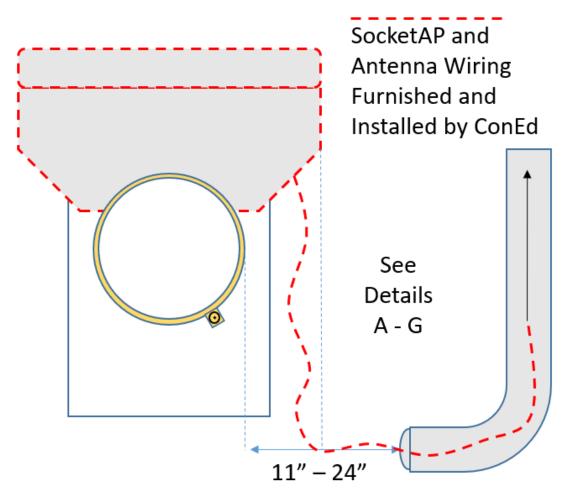


Figure A – Ringed Single Socket Meter Pan with Socket Access Point and Antenna Conduit

Figure "A" and "B" Requirements:

Conduit Size: 2" diameter minimum

Conduit Caps: Caps, of the same conduit size, must be placed on both ends of the conduit. Cap ends should be flush with surface

Conduit Placement: 11-24" from center of meter pan to side, 6" from either side of meter bank enclosure. Conduit shall be in front of face of meter pan. Closets shall include conduit in design to meet all requirements

Important Note: Each 120V meter room requires a ringed socket meter pan without bypass switch (Form 1S, 12S, 16S) as described in line 8 under <u>Information</u>. The meter pan must have line-side power and will be plated by Con Edison if a meter is not required, also known as a "dummy meter pan." Dummy meter pans shall be labeled with Parts Supplied "AMI" by the customer if they are being reserved for SocketAP installation only. Many CT meters do not qualify to meet this requirement because they cannot accept a locking ring, therefore a dummy meter pan shall be installed in meter rooms that do not have an approved ringed socket meter pan.

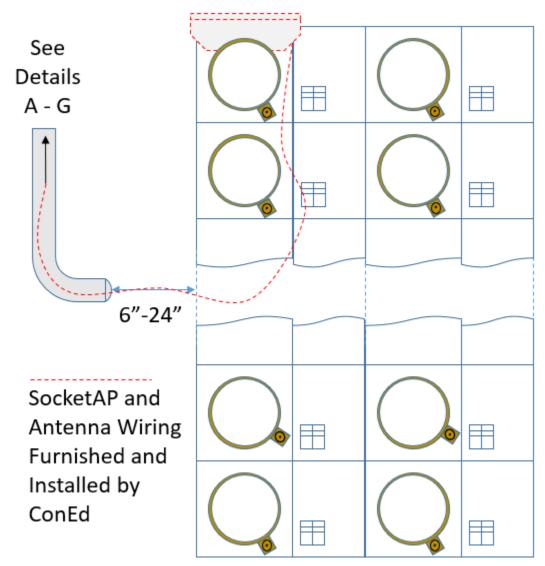
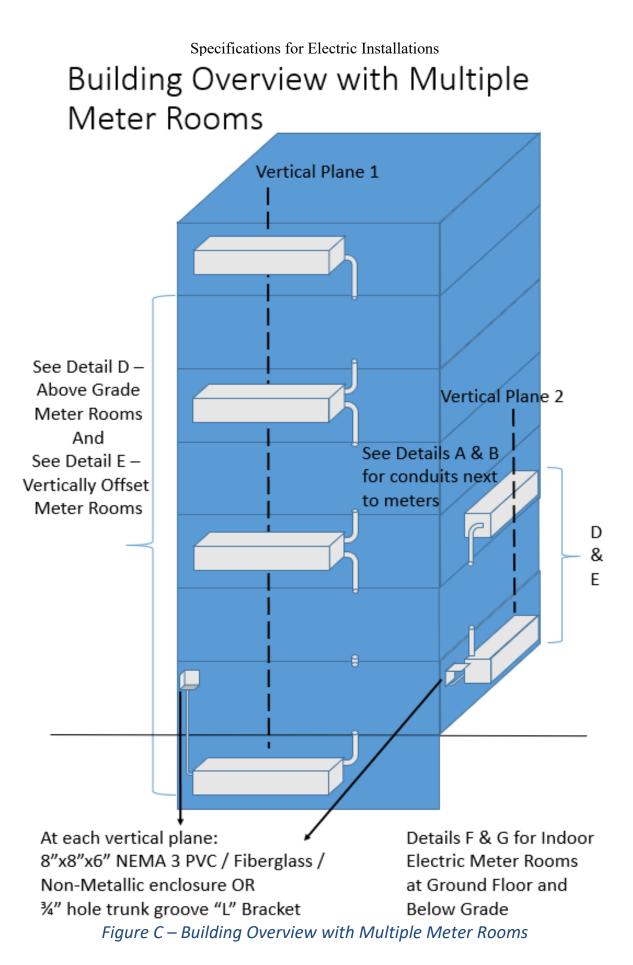


Figure B – Ringed Socket Meter Bank with example Socket Access Point locations and Conduit for Antennas (Socket Access Point location may vary)



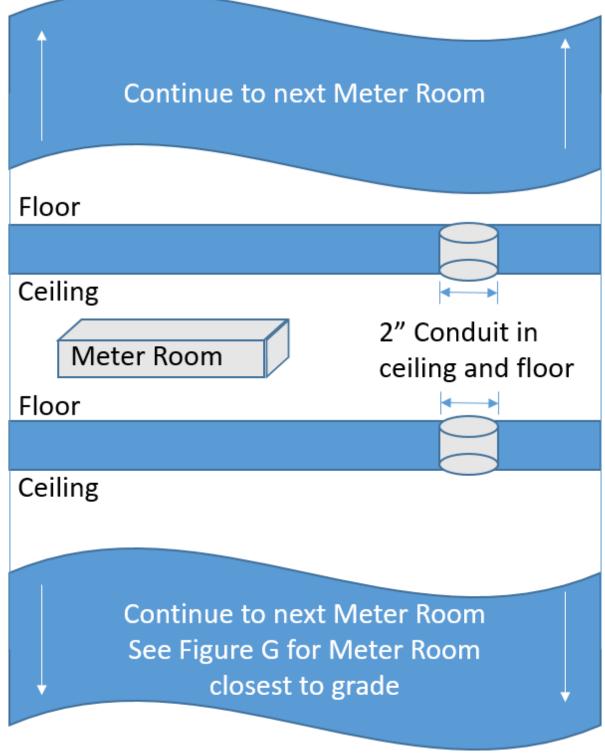


Figure D – Antenna Conduits between Meter Rooms

Figure "D" and "E" Requirements:

Conduit Size: 2" diameter minimum Conduit Caps: Caps, of the same conduit size, must be placed on both ends of the conduit. For meter room closest to grade, refer to Figures F & G

Cor	ntinue to next Meter Room	
Floor		
Ceiling Meter Room Floor	2" Conduit in ceiling and floor	
		Meter Room
	Floor	
	Ceiling	
Meter Room	2" Conduit in ceiling and floor	4 €
<>	Floor	4
	11001	
		8
	Ceiling	Meter Room
		Meter Room
Ceiling Meter Room		Meter Room
Ceiling	Ceiling 2" Conduit in	Meter Room
Ceiling Meter Room	Ceiling 2" Conduit in	Meter Room

Figure E – Antenna Conduits between Meter Rooms on Different Vertical Planes

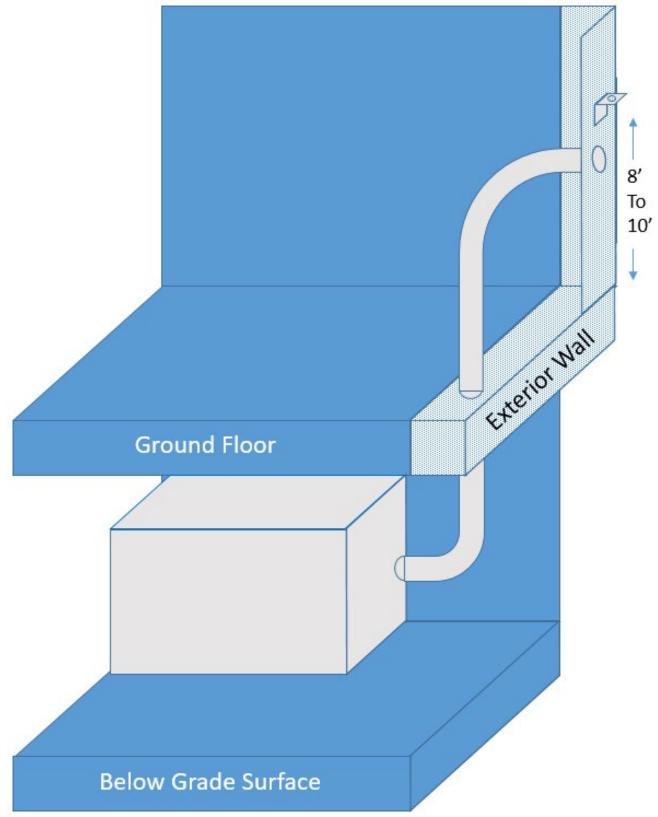


Figure F – Single Meter Room with Antenna Conduit to Outside using "L" Bracket Mount

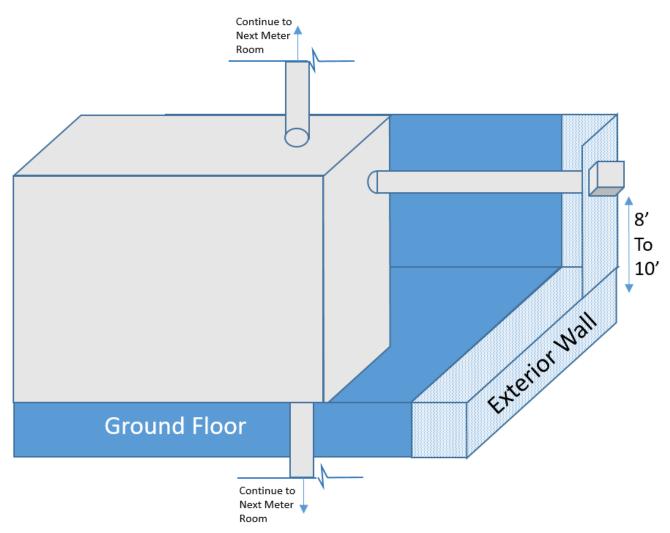


Figure G - Antenna Conduit to Outside from Meter Room closest to street grade & Multi Meter Rooms using PVC/Fiberglass/Non-Metallic Enclosure Mount

Figure "F" and "G" Requirements:

Conduit Size: 2" diameter minimum

Conduit Caps: Caps, of the same conduit size, must be placed on both ends of the conduit. Cap ends should be flush with surface and conduits should be sealed to prevent water intrusion

Termination Mount: One of the following two mounting apparatuses permanently installed on outside wall 8'-10' above grade for the purpose of mounting external antennas

- i. Figure "H" Minimum 8" x 8" x 6", NEMA 3, PVC/Fiberglass/Non-Metallic enclosure with conduit opening within and accessible front cover
- ii. Figure "I" ¾" hole trunk groove "L" Bracket with a minimum 2" bending radius from bracket base to top of conduit opening

Alternatively, installation of outside antenna mounting apparatuses on an accessible roof must be reviewed and approved by Con Edison's AMI Operations Center

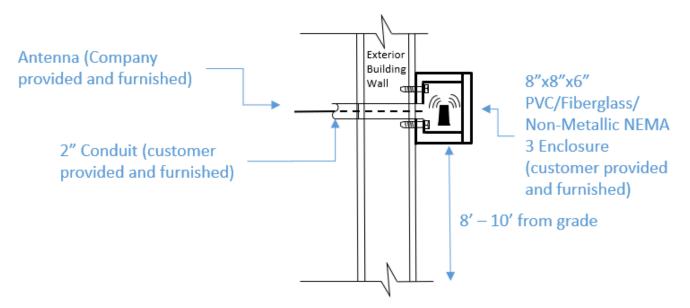


Figure H – Outdoor Termination Mount option i) 8" x 8" x 6", NEMA 3, PVC/Fiberglass/Non-Metallic enclosure with accessible front cover

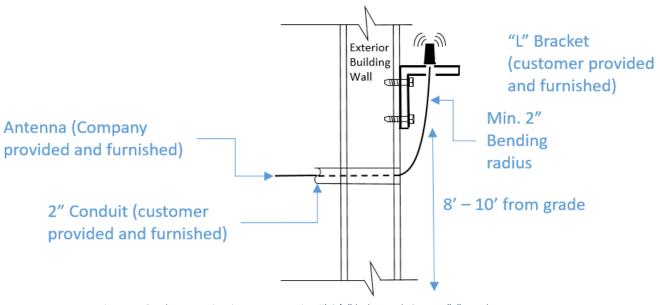


Figure I - Outdoor Termination Mount option ii) 3/4" hole Trunk Groove "L" Bracket

Section V – Customer Use of Generating Equipment

A. <u>General</u>

All customer-generating equipment connected to the Company's system must conform to company standards, as well as all in accordance with all design, manufacturing, installation, testing and operating standards of the industry, including ANSI, IEEE, NEC, NESC, OSHA, UL, NEMA and any applicable municipal, local, city or federal rules, regulations or ordinance codes, unless otherwise specified.

The Company reserves the right to decline requests from generators to interconnect to the distribution network system when the Company deems it necessary to protect its system, facilities or other customer. In addition, New York State maintains a cap on the amount of net metered capacity installed in Con Edison territory; as such, interconnections will be made on a first-come, first-served basis.

B. Dispersed/Distributed Generation

Con Edison defines a Distributed Generation (DG) facility as a small electric production facility (up to 20 MW) that is generally dedicated to the support of on-site electrical load, and in some cases can provide thermal load to the customer, as well.

DG facilities can utilize both renewable sources such as solar, wind, water power and farm waste, as well as non-renewable energy sources such as natural gas or other fossil fuels for conventional engines, turbines and fuel cells. Each technology has its own unique characteristics, and no one technology can address all customer needs equally well, so the Company urges customers to understand the DG technology solution being provided prior to committing to the installation of a DG facility.

Typically, DG facilities are installed on a portion of the existing electric service on the customer side of the meter; no DG facilities will be connected to temporary electric services. Con Edison permits any customer to operate DG facilities in parallel with the Company's electric system provided there is no adverse effect on other customers, equipment, personnel or quality of service. Protective devices such as relays, circuit breakers, etc. will be specified by the Company and must be installed at all locations of parallel interconnection with the Company's system. In some cases, the DG facility requested by the customer will require additional service upgrades or special equipment configurations to meet the Company's standards for service. Any service upgrade or interconnection costs due to DG installation are the customer's responsibility, and shall be paid in advance of construction or testing.

The general requirements for electrical service to dispersed generation customer is found in EO-2115.

Following a technical review of the feasibility of the project, the Company may identify that a Coordinated Electric System Review (CESIR) is required. The CESIR determines the impact of the customer's DG facility on the Company system, and reveals any necessary changes or required upgrades to the Company system in order for the facility to safely interconnect. After determining that a CESIR is required, the Company will notify the customer of the estimated cost to perform the CESIR. The Company will not proceed with the CESIR until the customer commits to the study through payment of the costs of the CESIR, or by submitting a formal letter stating the customer's intent to pay. The specific costs for which the customer is responsible and the timing of the payment are described in the current Tariff.

Any DG facilities with a capacity of 2MW or less must comply with the process and standards contained in the New York State Standardized Interconnection Requirements and Application Process (SIR), found in <u>Electric PSC Tariff 10 – Addenda – SIR</u>.

In addition to submitting an application for service, all applicants requesting electric Standby Service and/or Buy-back Service or Net Metering must also complete and submit the "Addendum to Application for Service" found in <u>Electric PSC Tariff 10 – Application Form G</u>.

More information on Distributed Generation is available <u>Con Edison: Rates and Tariffs - Electric</u> <u>Rates and Tariffs.</u>

C. Emergency Generating Facilities Used for Self-Supply

The use of emergency generating equipment at the premises for self-supply will be permitted as follows:

- By affected customers for the duration of an interruption of the Company's service or a Company announced voltage reduction
- When generating equipment is operated at the direction of the NYISO under NYISO Installed Capacity procedures for Special Case Resources (SCR) or NYISO procedures for Emergency Demand Response (EDRP)
- Or at the direction of the Company under Rider O and T
- Or when demand response events are called under the Brooklyn / Queens Demand Management (BQDM) Program.

Unless the customer is also authorized to export the generated electricity, the customer's wiring and switching equipment shall be so arranged as to prevent parallel operation of the emergency generator with the Company's electrical system or feedback into the Company's lines.

The specification outlining the requirements of customer's emergency generator is found in EO-2113: Transfer of Load from Company's Supply to Customer's Emergency Generator.

Before such emergency equipment is installed, the Customer shall submit to the Company for its approval:

- 1. A wiring diagram showing how the emergency generator would be connected to the building wiring including the switching arrangements to prevent parallel operation; and
- 2. A statement in writing signed by the customer to the effect that the emergency facilities will be used only during an interruption of the Company's electricity service or a Company announced voltage reduction and for necessary testing purposes or when generating equipment is operated at the direction of the NYISO under NYISO SCR or EDRP procedures or at the direction of the Company under Rider O and T or when demand response events are called under the Brooklyn / Queens Demand Management (BQDM) Program.

In addition, the wiring diagram submittal of major project applicants of 100 kW generator size and greater must be signed off by the Professional Engineer (P.E. Stamp)

D. Generating Facilities Used on an Emergency Basis for Export

The use of generating facilities at the premises for delivery to the Company's primary distribution feeder will be permitted on an emergency basis as follows:

- When generating equipment is operated at the direction of the NYISO under NYISO Installed Capacity procedures for Special Case Resources (SCR) or NYISO procedures for Emergency Demand Response (EDRP)
- At the direction of the Company under Rider O and T.
- Or when demand response events are called under the Brooklyn / Queens Demand Management (BQDM) Program.

Consolidated Edison Co. Inc

Delivery to the Company's secondary networks is prohibited. A customer may not deliver to the Company's primary distribution feeder while it is receiving electric energy delivered by the Company.

A customer who falls under this category must comply with all the provisions of SC-11: Buy-Back Service, including the Interconnection Charge and Determination of Demand, including establishing contractor demand and installation of appropriate metering to measure the energy delivered to the Company's system. Further, such Customer will pay any costs associated with reinforcing the distribution system and/or adding facilities as may be required for load delivery.

The amount of purchased power and energy may be limited by the Company, where technical considerations dictate that such actions are necessary.

E. Standby Service

"Standby Service" means the delivery of power and energy:

- a) To replace and/or supplement the power and energy ordinarily generated at a Customer's premises by means of a private generating facility on the premises, or
- b) For station use by a customer that is a wholesale generator. "Station use" includes power and energy used by the Customer at its premises in connection with its generating facility
 - i. During periods when such needs are not served by the generator and/or
 - ii. To restart the generator after an outage

Where a portion of the customer's needs at its premises in connection with its generating facility are not self-served, those needs will be considered to be part of "station use" if the usage is not served under a separately-metered account.

"Standby Service" excludes the use of generation for the following purposes:

- a) Export under Buy-back Service (SC 11)
- b) Net metering under Rider R
- c) Emergency generation used for self-supply
- d) Export of generation on an emergency basis

To receive Standby Service, the generator may be connected either for:

- a) Parallel operation with the Company's service
- b) Isolated operation with standby service provided by the Company by means of a double-throw switch

Customers who take Standby Service are subject to all terms and conditions set forth in Electric PSC Tariff 10 – General Rule 20. Certain customers with DG facilities that are considered "Designated Technologies" are exempt from Standby Rates, as well as some customers whose generator or load profile meet certain criteria. See Section 20.3 of General Rule 20 for more information.

Section VI – High Tension Service

High tension service may be designated by the Company for service when warranted by the magnitude or location of the load, or other physical conditions, or when it would result in the least cost to the Company.

Con Edison provides service to high tension service customers at a nominal voltage of 4kV, 13kV, 27kV or 33 kV depending location. To achieve this, the Company extends 4kV, 13kV, 27 kV or 33 kV feeders to a manhole at the customer property line (or to a pole at the customer property line).

The company works with the customer to select a convenient position for the property line manhole to minimize the amount of street construction needed to extend the primary feeder to the customer. Where the Customer prefers another location, they are usually required to pay the difference in cost.

The Company owns and maintains its feeders up to the property line manhole and the customer will design, install, own and operate all equipment from the property line termination point (manhole or splice chamber), including cables, circuit breakers, transformers, and associated equipment. While the customer owns the substation, Con Edison evaluates the design and construction of the substation to ensure that they will not have an adverse impact on the electric distribution system. Con Edison's contribution to the project is primarily the performance of design reviews and the extension of its feeders to the customer premises.

Experience has shown that High Tension projects may take up to three years or more to be completed, depending on the complexity of the customer's design. Early submission and close coordination with Con Edison are critical to ensure the customer's and Con Edison's negotiated service date is met.

High tension service will not be supplied to customers for whom the company designates secondary service from the company's secondary mains.

Con Edison's specification EO-2022 – General Specification for High Tension Service details the areas responsibility for ownership, construction, alteration, operation and maintenance of equipment. In addition, also refer to MES-350 for high tension metering installation requirements. The company's detailed engineering requirements for the high tension service are given in the supplemental site-specific Technical Specification. The **General** and the **Technical Specifications**, with the appropriate support documents, comprise the Company's requirements for the Customer to obtain High Tension service. To be considered for High Tension service, which is a non-standard service, the customer must agree to all of the requirements contained herein.

An information guide has been prepared by the company for customers who are planning to install high tension substations and is available on Con Edison's website.

Section VII – Approved Electric Service Equipment

The equipment listed on the following pages is approved for use in connection with service installations in the territory supplied by Con Edison. By testing or approving equipment, Con Edison gives no warranty, expressed or implied, of the adequacy, safety, or other characteristics of any equipment, wiring, or devices, and assumes no responsibility with respect thereto. Customer to follow manufacturer's installation guidelines including the use of factory-provided knockouts for meter installations.

As of June 1, 2013 all new electric meter installations / upgrades must have socket meter equipment installed. As of June 1, 2013 A- base equipment listed in Section VII is for reference purposes only specific to equipment installed prior to June 1, 2013.

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The equipment listed on the following pages is approved for use in connection with service installations in the territory supplied by Con Edison. By testing or approving equipment, Con Edison gives no warranty, expressed or implied, of the adequacy, safety, or other characteristics of any equipment, wiring, or devices, and assumes no responsibility with respect thereto. Customer to follow manufacturer's installation guidelines including the use of factory-provided knockouts for meter installations.

As of June 1, 2013 all new electric meter installations / upgrades must have socket meter equipment installed. As of June 1, 2013 A- base equipment listed in Section VII is for reference purposes only specific to equipment installed prior to June 1, 2013.

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Table I

Service End Boxes for Underground Service

	CATALOG NUMBERS For Indoor Use (For Outdoor Use See Note 1)				
Manufacturer	10" x 10" x 5"	12" x 12" x 8"	24" x 12" x 8"	30" x 18" x 12"	
Superior Electrical Enclosure, Inc. dba Delta Standard Products	D-205	D-220	D-215	D-484	
Navtech, Inc	N-205	N-220	N-215	N-484	
Murray Electric Products	SEB 1010				
Electrotech Service Equipment Corp.				ES 484*	
Milbank	SA-10105-SC1-SP1		SA-24128- SC1-SP1	SA-301812- SC1-SP1	

* Knock Outs provided per contractor instructions.

Con Edison will provide information on service end boxes for larger installations.

1

For outdoor use, Catalog Number will be preceded by "RT" (Rain tight) for example RTD-205

Consolidated Edison Co. Inc

Outdoor/Indoor Box-Type Watt-Hour Meter Sockets for AC Meters						
Manufacturer	Jaw Type	Ampere Rating	Volts	Service Feed Type	Hub/Closure Plate	Catalog Numbers
	.,		Without By-Pass Faciliti		v	
Eaton Cutler-Hammer ¹	4-Jaw	125	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	UTRS101BE
	5-Jaw	125		Overhead	With/Without Hub	U -RS101B (or T) -CR -CH
	o sun	120	3 Wire 120/208 or 120/240 Volts	Underground	Closure Plate/Solid Endwall	U -RS101B (or T) -CR -CH
				Overhead	With/Without Hub	U -RS202B (or T) -CR -CH
		200	3 Wire 120/208 or 120/240 Volts	Underground	Closure Plate/Solid Endwall	U -RS212B (or T) -CR -CH
		200	0 1110 120, 200 01 120, 210 1013	Overhead/Undergrou	With/Without Hub	UG -E4213C -CC -CH
	7-Jaw	200	4 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	-	U -E7213C -CH
Talon	5-Jaw	100	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	UAT121 -0BCO
	5 541	100	5 Wile 120/200 01 120/2 10 Volt3	Underground	Closure Plate/Solid Endwall	UAT121 -PBCO
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	UAT327 -0MCO
		200	5 Wile 120/200 01 120/2 10 Volt3	Underground	Closure Plate/Solid Endwall	UAT427 -PMCO
Midwest-GE ¹	5-Jaw	125	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U -RS101B (or T) -CR -MEP
	5 541	125	5 Wile 120/200 01 120/2 10 Volt3	Underground	Closure Plate/Solid Endwall	U -RS101B (or T) -CR -MEP
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U -RS202B (or T) -CR -MEP
		200	5 Wire 120/208 01 120/240 Volts	Underground	Closure Plate/Solid Endwall	U -RS202B (or T) -CR -MEP
Milbank	5-Jaw	125 ²	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U7490 -XL -TG -5TW
WINDONK	7-1444	125	5 Wire 120/208 01 120/240 Volts	Underground	Closure Plate/Solid Endwall	U7490 -XL -TG -5TW
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U4518 -XL -W
		200	3 Wile 120/208 01 120/240 Volts	Underground	Closure Plate/Solid Endwall	U4518 -XL -W
	7-Jaw	200	4 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	Closure Plate	U1854 -XL -QG -BLG -LIS
Murray Electric		100	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	
Products	5-Jaw	100	3 WIRE 120/208 OF 120/240 VOILS	Overhead	1-1/4" Fixed Hub	SN 152 CX SN 152 CC
Products					Closure Plate/Solid Endwall	SN 152 CC SN 152 C
		200	3 Wire 120/208 or 120/240 Volts	Underground		SIN 152 C
		200	3 WIRE 120/208 OF 120/240 VOILS	Overhead	With/Without Hub	
						SS 152 CX
				Underground	Closure Plate/Solid Endwall	SS 152 C
	7-Jaw	100	4 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	Closure Plate	SE 750 CR
NavTech	5-Jaw	125	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	MS -1G -100
				Underground	Closure Plate/Solid Endwall	MS -1G -100
						VMB -2 (Indoor Only)
All City Switchboard	5-Jaw	200	3 Wire 120/208 or 120/240 Volts	Underground	Closure Plate/Solid Endwall	VMB -3 (Indoor Only)
						VMB -4 (Indoor Only)
Siemens	4-Jaw	200	3 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	Closure Plate/Solid Endwall	SUAT417 -XGF
	5-Jaw	100	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	WSN 152 CX
						SUAT121-0BCO
						SUAT121 -BBCO
				Underground	Closure Plate/Solid Endwall	WSN 152 C
						SUAT121 -PBCO
						SUAT121 -BBCO
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	WSS 152 CX
						SUAT327 -0MCO
						SUAT327 -0GWR
				Underground	Closure Plate/Solid Endwall	WSS 152 C
						SUAT427 -PMCO
	7-Jaw	100	4 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	Closure Plate	WSE 750 CR
Square D ¹	4-Jaw	200	3 Wire 120/208 or 120/240 Volts	Overhead/Undergrou	Closure Plate/Solid Endwall	URT-RS213B -SQD
	5-Jaw	125	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U -RS101B (or T) - CR -SQD
				Underground	Closure Plate/Solid Endwall	U -RS101B (or T) -CR -SQD
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U -RS202B (or T) -CR -SQD
	1	1	, , , , , , , , , , , , , , , , , , , ,	Underground	Closure Plate/Solid Endwall	U -RS212B (or T) -CR -SQD

Table II Dutdoor/Indoor Box-Type

T in place of B stands for Large NEMA hub opening (2 $\frac{1}{2}$ " through 4").

B or T can be replaced with C or U indicating a hub cover plate factory installed.

Suffix MEP may be replaced by GE

² Order Kit, Catalog No. K5709 to convert a 7490 to an insulated neutral

Specifications for Electric Installations Consolidated Edison Co. Inc

Table II (Continued...)

Outdoor-Indoor Box-Type Watt-Hour Meter Sockets for AC Meters						
Manufacturer Jaw Type Rating		Volts	Service Feed Type	Hub/Closure Plate	Catalog Numbers	
	1		With Lever By	y-Pass Facilities	1	1
			3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	UG - H4213B (or T) - CCGCH Δ
	5-Jaw	200			.,	UG - E4213C - CCGCH
			,,	Underground	Closure Plate/Solid Endwall	UG - H4213B (or T) - CCGCH Δ
						UG - E4213C - CCGCH
Eaton Cutler-Hammer 1					With 2-1/2" Hub	UG - H4213B (or T) - CCGCH Δ
				Overhead		UG - E7213C - CCGCH
	7-Jaw*	200	4 Wire 120/208 or 120/240 Volts	o remedu	With 3" Hub	UG - H4213B (or T) - CCGCH Δ
	,	200	1 111 2 120, 200 01 120, 210 1010			UG - E7213C - CCGCH
				Underground	Closure Plate/Solid Endwall	UG - H4213B (or T) - CCGCH Δ
				onderground		UG - E7213C - CCGCH
			3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	40405 - 02CO
	5-Jaw	200		oveniedd	With 1-1/4" Fixed Hub	40405 - 02CO HUB
Talon				Underground	Closure Plate/Solid Endwall	40405 - 02CO
	7-Jaw *	200	4 Wire 120/208 or 120/240 Volts	Overhead	With 2-1/2" Hub	40407 - 02CO HUB
				Underground	Closure Plate/Solid Endwall	40407 - 02CO
	E loui	200	3 Wire 120/208 or 120/240	Overhead	With/Without Hub	UG - H4213B (or T) CCGMEP
Midurat CE1	5-Jaw	200	Volts	Underground	Closure Plate/Solid Endwall	UG - H4213B (or T) CCGMEP
Midwest - GE ¹	7-Jaw*		4 Wire 120/208 or 120/240 Volts	Overhead	With 2-1/2" Hub	U-H7213B (or T) - CCGMEP
+		200			With 3" Hub	U-H7213B (or T) - CCGMEP
				Underground	Closure Plate/Solid Endwall	U-H7213B (or T) - CCGMEP
		200	3 Wire 120/208 or 120/240 Volts	Overhead	With/Without Hub	U3042
N 4111h a m lu	5-Jaw	200		Underground	Closure Plate/Solid Endwall	U3042
Milibank			4 Wire 120/208 or 120/240 Volts	Overhead	With 2-1/2" Hub	U1854 Hub A7518
++	7-Jaw*	200			With 3" Hub	U1854 Hub 8110
				Underground	Closure Plate/Solid Endwall	U1854
						RH 173 CRF
				Overhead	With/Without Hub	RH 173 CR
			3 Wire 120/208 or 120/240			RH 173 CRJ
	5-Jaw	200	Volts	Underground	Closure Plate/Solid Endwall	RH 173 CRF
						RH 173 CR
Murray Electrical						RH 173 CRJ
Products**	7-Jaw*	200	4 Wire 120/208 or 120/240	Overhead	With 2-1/2" Hub	RH 173 GRF
+++			Volts			RH 173 GR
						RH 173 GRJ HUB RX 250
				Underground	Closure Plate/Solid Endwall	RH 173 GRF
						RH 173 GR
						RH 173 GRJ

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	Outdoor-Indoor Box-Type Watt-Hour Meter Sockets for AC Meters					
Manufacturer	Jaw Type	Ampere Rating	Volts	Service Feed Type	Hub/Closure Plate	Catalog Numbers
With Lever By-Pass Facilities						

Siemens	5-Jaw	200	3 Wire 120/208 or 120/240	Overhead	With/Without Hub	S40405 - 02CO		
#			Volts		With 1-1/4" Fixed Hub	S40405 - 02CO HUB EC3859		
				Underground	Closure Plate/Solid Endwall	S40405 - 02CO		
	7-Jaw*	200 4 Wire 120/208 or 120/240		Overhead	With 2-1/2" Hub	S40407 - 02CO HUB EC38600		
			Volts	Underground	Closure Plate/Solid Endwall	S40407 - 02CO		
	5 1. 200		3 Wire 120/208 or 120/240	Overhead	With/Without Hub	UG - H4213B (or T) CCGSQD		
	5-Jaw	200	Volts	Underground	Closure Plate/Solid Endwall	UG - H4213B (or T) CCGSQD		
Square D ¹							With 2-1/2" Hub	UG - H7213B (or T) CCGSQD
	7-Jaw*	200	4 Wire 120/208 or 120/240	Overhead	With 3" Hub	UG - H7213B (or T) CCGSQD		
	Volts		Undeground	Closure Plate/Solid Endwall	UG - H7213B (or T) CCGSQD			

 1 B stands for Small NEMA hub opening (3/4" through 2½").

T in place of B stands for Large NEMA hub opening (2 $\%^{\prime\prime}$ through 4")

B or T can be replaced with C or U indicating a hub cover plate factory installed.

Suffix MEP may be replaced by GE

These sockets are approved for outdoor or indoor installation. See Table III for Blank Cover Plates. All 7-Jaw sockets are to be supplied with Ekstrom Ind Inc, Catalog No. 1-6002 blank cover plate.

Table II (Continued)

Explanatory Notes Continued from page 68

- * All 7-Jaw sockets have bonded neutrals and can only be used on line side of service disconnect for 120/208-volt or 120/240-volt but cannot be used on 265/460 volt installations.
- ** Order Kit, **Catalog No. RX 085NK** to convert any RH 173 socket to an insulated neutral for use on all 120/208 volt and any 120/240 volt installations on the load side of the service disconnect.
- Order Kit,
 Catalog No. ARP00759-CH to convert any UG-H4213B(or T)-CC-CH or U-H7213B(or T)-CC-CH,
 Catalog No. ARP00759-MEP to convert any UG-H4213B(or T)-CC-MEP or U-H7213B(or T)-CC-MEP,
 Catalog No. ARP00759-SQD to convert any UG-H4213B(or T)-CC-SQD or U-H7213B(or T)-CC-SQD to an insulated neutral.
- ++ Order Kit, Catalog No. K1047 to convert any U3042 or U1854 to an insulated neutral.
- # Order Kit, Catalog No. 64690-1 to convert any S40405-02CO or S40407-02CO to an insulated neutral.
- **##** Order Kit, **Catalog No. 64690-1** to convert any 40405-02CO or 40407-02CO to an insulated neutral.
- +++ Order Kit, **Catalog No. 64690-1** to convert any RH 173 CRJ or RH 173 GRJ to an insulated neutral.
- △ Obsolete part- for reference only

Table II (continued...)

Outdoor-Indoor Box Type Watt-hour Meter Sockets for AC Meters

		Catalog Numbers
		3-wire 120/208 or 120/240 volts
		5-Jaw
Manufacturer	Ampere-Rating	Top or Bottom Entry

With Horn By-Pass Facilities

Millbank 100	U4467 *
--------------	---------

SUITABLE FOR LOCATIONS WITH SPACE LIMITATIONS OR NO LOAD GROWTH ANTICIPATED. OTHERWISE, STANDARD 200A LEVER BY-PASS SOCKET SHOULD BE USED.

* Order Kit Number K4474 to convert to an insulated neutral.

Table III Blank Cover Plate for Use with Watt-hour Meter Sockets									
Manufacturer	Material	Catalog Number							
Thomas & Betts	Cardboard	SS – 3							
(AKA Anchor)	Plastic	GC – 2							
Murray Electrical Products	Cardboard	SX – 025 M							
Murray Electrical Products	Plastic	SX – 087 M							
Ekstrom Industries, Inc	Plastic	1-6002, 1-6003							
General Electric Co	Glass	680 X 31							
TALON	Plastic	109968							
Milbank	Cardboard	Z 701168-FO							
IVIIIDATIK	Plastic	6003, 6116							
Square D	Plastic	29007							

Table IV – A Indoor Vertical Trough Meter Stacks – Not Bussed											
5-Jaw Watt-hour Meter Sockets for AC Meters											
Manufacturer	Amps Per	Catalog Number No. of Meter Positions in Trough Section									
	Position	1	2	3	4	5	6				
NO EQUIPMENT OF THIS TYPE IS APPROVED AT THIS TIME											

Table IV - B

Indoor Vertical Trough Meter Stacks -- Bussed 5 and 7-Jaw Socket Meter Stacks (Single and Three phase)

Max Manufacturer Pos	Max	Cont	Cont Posit	Position	Catalog Number						
	•	of Line		No. of Meter Positions							
	•	• •	Bus	1	2	3	4	5	6		

Without Bypass SINGLE PHASE 5-Jaw 10 In/10 Out Residential Use Only

Siemens/Murray See Note 2	125	100	bottom		(S)UV S 210	(S)UVS 310 UVS 311B	(S)UVS 410 UVS 411B	(S)UVS 510 UVS 511B	
Siemens See Notes 1, 2	225	180	Left	(W)MM 11XXXJ	(W)MM 21XXXJ	(W)MM 31XXXJ	(W)MM 41XXXJ	(W)MM 51XXXJ	(W)MM 61XXXJ
Superior Electrical Enclosure, Inc. dba Delta Standard Products	200 **	160	bottom		2MVB	3MVB	4MVB		
MAC Power Products	150 **	80	bottom		MTB2	MTB3	MTB4	MTB5	MTB6
All City Switchboard	200	160	bottom		VMB-2	VMB-3	VMB-4		
SQUARE D *	125	100	Top bottom			EZM313 125M10	EZM314 125M10	EZM315 125M10	EZM316 125M10

Without Bypass THREE PHASE 5-Jaw 3Φ In / 1Φ Out Residential and Commercial Use

		/1							
Siemens See Notes 1, 2	225	180	Left	(W)MN 12XXXJ	(W)MN 22XXXJ	(W)MN 32XXXJ	(W)MN 42XXXJ	(W)MN 52XXXJ	(W)MN 62XXXJ

With Lever Bypass THREE PHASE 5-Jaw 3ΦIn / 1Φ Out Residential and Commercial Use

SQUARE D See Note 1	225	200	Middle		EZML 312XXX	EZML 313XXX	EZML 314XXX	
Siemens See Notes 1, 2	225	180	Left	(W)ML 11XXXRJ	(W)ML 21XXXRJ	(W)ML 31XXXRJ	(W)ML 41XXXRJ	
Siemens See Notes 1, 2	400	320	Left	(W)ML 12XXXRJ	(W)ML 22XXXRJ	(W)ML 32XXXRJ	(W)ML 42XXXRJ	
EATON, Cutler-Hammer	225	200	Middle	35MM 120R12 NY	35MM 220R12 NY	35MM 320R12 NY	35MM 420R12 NY	

Specifications for Electric Installations Consolidated Edison Co. Inc

VVILII L	with Level bypass TREE PRASE 7-Jaw Sould Sould residential and Commercial Ose											
SQUARE D	225	200	Middle	EZML	EZML	EZML	EZML					
See Note 1			wildule	331XXX	332XXX	333XXX	334XXX					
Siemens	225	180	Left	(W)ML	(W)ML	(W)ML	(W)ML					
See Notes	225	100	Leit	13XXXRJ	23XXXRJ	33XXXRJ	43XXXRJ					
1, 2												
EATON,				37MM	37MM	37MM	37MM					
Cutler-Hammer,	225	200		120R12	220R12	320R12	420R12					
Eaton/Cutler-			Middle	NY	NY	NY	NY					
Hammer												

With Lever Bypass THREE PHASE 7-Jaw 3ΦIn / 3Φ Out Residential and Commercial Use

See Table III for Blank Cover Plates

For outdoor installations use rain tight accessories as shown in manufacturer's catalog.

- * Order Cat. No. UX001 WL (Fifth Jaw Assembly) and Cat. No. SX005M (Sealing Ring) for each meter position.
- ** Prefabricated bus connections. See manufacturer's catalog.
- + Upper right position provided with blank position and cover.

Note 1: XXX = max breaker size, i.e., 100A, 125A, 225A, 400A

Note 2: W prefix denotes outdoor NEMA 3R enclosure

S prefix denotes Siemens unit

Table IV – B (cont'd)

Indoor/Outdoor Vertical Main Terminal Box – Bussed (middle)

Catalog Number									
Square D	EATON, Cutler-Hammer, Eaton/Cutler-Hammer	SIEMENS	GE	Rating					
120/208 Volts									
EZM3400TBCU	3MTB400RC	WTBN3400CU	TMP3L4RCU	400A					
EZM3600TBCU	3MTB600RC	WTBN3600CU	TMP3L6RCU	600A					
EZM3800TBCU	3MTB800RC	WTBN3800CU	TMP3L8RCU	800A					
EZM3EXT *									
EZM3EXT6 *	3MTB1200RC	WTBN31200CU		1200A					
EZM3CORNER *									
EZM31600TB	3MTB1600RC			1600A					

Note 1: Square D and Siemens Boxes are NEMA-3R. CU or C suffix denotes copper bus. Leave out to specify Aluminum bus. R denotes NEMA-3R.

* denotes bus extension equipment

Indoor/Outdoor Vertical Main Fused Switch / Terminal Box combination – Bussed (middle)

Catalog Number								
Square D	EATON, Cutler-Hammer, Eaton/Cutler-Hammer	SIEMENS	Rating					
120/208 Volts								
EZM3400FS	3MFS400RBC	WS3400	400A					
EZM3600FS	3MFS600RBC	WS3600	600A					
EZM3800FS	3MFS800RBC	WS3800	800A					
NONE	3MFS1200RBC	WS31200	1200A					

Table IV – B (Continued)Indoor Vertical Trough Meter Stacks – Bussed (middle)5-Jaw Watt-hour Meter Stacks for AC Meters3ΦIn / 1ΦOut

Main	Continuous No. of positions Phase		Catalog	Catalog Number		
Bus Rating [Amps]	Amp Rating per position	X = 2 through 6	Balancing	EATON, Cutler-Hammer, Eaton/Cutler-Hammer	General Electric	
800	125	Х	AB	3MMX12C2AB	TMP8X12AB	
800	125	Х	AC	3MMX12C2AC	TMP8X12AC	
800	125	Х	BC	3MMX12C2BC	TMP8X12BC	

Indoor/Outdoor Vertical Meter Stacks – Bussed (middle)

5-Jaw Watt-hour Meter Stacks with lever bypass for AC Meters $3\Phi ln / 1\Phi Out$

Main	Continuous	No. of positions		Catalog Number					
Bus Rating [Amps]	Amp Rating per position	X = 2 through 6	Phase Balancing	SIEMENS	EATON, Cutler-Hammer, Eaton/Cutler-Hammer	General Electric			
		Ŭ		See Note 1					
800	125	Х	AB		3MMX12RC2AB	TMP8X12RAB			
800	125	Х	AC		3MMX12RC2AC	TMP8X12RAC			
800	125	Х	BC		3MMX12RC2BC	TMP8X12RBC			
1200	225	Х	AB	(W)MLX2AB225RJ					
1200	225	Х	BC	(W)MLX2BC225RJ					
1200	225	Х	AC	(W)MLX2CA225RJ					

Notes:

- EATON, Cutler-Hammer, Eaton/Cutler-Hammer provides 4-gang stacks with 1 blank. For that type, "4" is added to the catalog number of four-gang units; for example: 3MM412C2AB<u>4</u>

- "R" is added to the middle of catalog number for GE and CH; for example: 3MM312<u>R</u>C2AB. For SIEMENS, add W prefix for outdoor 3R enclosure.

Phase Balancing for SIEMENS, CH and GE units: one of every three stacks should be phased AB, one of every three phased AC.

Note 1: W prefix denotes outdoor NEMA 3R enclosure

	Table IV – C										
Indoor Horizontal Trough Meter Sockets Not Bussed											
	5-Jaw Watt-hour Meter Stacks for AC Meters										
Amperes Catalog Number											
Manufacturer	Per		No. of Meter	Positions in Tro	ugh Secti	on					
	Position	1	2	3	4	5	6				
	Wit	hout By-Pass	Facilities - Resi	dential Use On	ly						
Murray Electrical Products	100	SC 150 C	SC 250 C	SC 350 C	*	*	*				
Siemens	100	WSC 150 C	WSC 250 C	WSC 350 C	*	*	*				
	See Table III for blank cover plates.										
Maximum line wire	Maximum line wire size 250 MCM.										
* Four, five and six	gang troughs	can be assemble	d from one, two a	and three position	i units.						

Table IV – D Indoor Horizontal Trough Meter Stacks – Bussed For 5-Jaw socket-based meters										
N A a a a b a b a b a b a b a b a b a b a b b a b b b b b b b b b b	Amperes			Catalog Numb						
Manufacturer	Per Position	2	NO. OF Meter	4	rough Section 5	6				
Without By-Pass Facilities – Residential Use Only										
Superior Electrical	125	HM 1020	HM 1030	HM 1040	HM 1050					
Enclosure, Inc. dba Delta Standard Products	100					HM 1060				
See Table III for blank cover plates.										
Maximum line wir	Maximum line wire size 250 MCM.									

Table V – A: Outdoor/ Indoor Horizontal Trough Meter Stacks Not Bussed 5 Jaw Watt-hour Meter Sockets for AC Meters								
Manufacturer	Amperes Per	Hub Location	Catalog Number No. of Meter Positions in Trough Section					
	Position		2	3				
NO EQUIPMENT OF THIS TYPE IS APPROVED AT THIS TIME								

Table V- B: Outdoor/ Indoor Horizontal Trough Meter Stacks – Bussed 5 Jaw Watt-hour Meter Sockets for AC Meters

Ar	Amp		Line	Load	Catalog Number				
Manufactur er	per	Hub Location	Wire	Wire	No.	of Meter Positio	ns in Trough Sec	tion	
	Pos		Size	Size	2	3	4	5	

Without By-Pass Facilities - Residential Use Only

EATON, U-2R1121B-CR-U-3R1121B-U-4R1121B-U-5R1121B-CR-Trough 250 100 #2/0 Cutler-Center MCM СН CR-CH CR-CH СН Hammer, U-2R2352T-CR-U-3R2352T-U-4R2352T-Trough 500 250 Eaton/Cutler-200 ---Center MCM MCM СН CR-CH CR-CH Hammer + Trough 500 250 Talon 200 UA2728-YMCO UA3728-YMCO UA4728-YMCO ----Center MCM MCM U-2R1121B-U-4R1121B-Trough 250 U-3R1121B-U-5R1121B-#2/0 100 CRMEP Midwest-GE Center MCM CRMEP CRMEP CRMEP Trough U-2R2352T-U-3R2352T-U-4R2352T-500 250 200 ----CRMEP CRMEP Center MCM CRMEP MCM Trough 350 4 U5715 Milba + ---

SN 551 CR

WSN 551 CR

U-5R1121B-

CRSQD

Milbank	125	Center	MCM	#2/0	U3522	U5713	U5714
+	200	Trough Center	600 MCM	350 MCM	U3532		
Murray Electric	100 *	Hub Right/ Closure Plate-Left	250 MCM	#1/0	SN 251 CR	SN 351 CR	SN 451 CR
Products	200 +	Trough Center	500 MCM	250 MCM	SS251CR	SS351CR	SS451CR
Siemens	100 *	Hub Right/ Closure Plate-Left	250 MCM	#1/0	WSN 251CR	WSN 351 CR	WSN 451 CR
	200 <mark>+</mark>	Trough Center	500 MCM	250 MCM	SUA2327- XMCO	SUA3327- XMCO	SUA4728- YMCO
Square D +	100	Trough Center	250 MCM	#2/0	U-2R1121B- CRSQD	U-3R1121B- CRSQD	U-4R1121B- CRSQD
	200	Trough Center	500	250 MCM	U-2R2352T- CRSQD	U-3R2352T- CRSQD	U-4R2352T- CRSQD

See Table III for Blank Cover Plates.

When a hub is required for overhead service, specify hub size desired.

Suitable for bottom or top entry. In Midwest stacks, MEP suffix may be replaced by GE. +

Suitable for bottom or top entry - Hub and Closure Plate provided.

Table V- C Outdoor/Indoor Vertical Trough-Type Meter Stacks -- Bussed 5-Jaw Watt-hour Meter Sockets for AC Meters

Amp Per	Hub	Line Wire Size	Load Wire		Catalog Number No. of Meter Positions in Trough Section				
Pos	Location		Size	1	2	3	4		

Without By-Pass Facilities - Residential Use Only

EATON, Cutler- Hammer, Eaton/Cutler- Hammer	125	Center	350MCM	#2/0	 U-2V1031B (or T)-CR-CH	U-3V1031B (or T)-CR-CH	
See Note 1							
Talon	125	Center	350MCM	#2/0	 UA2B21-0MCO	UA3B21- 0MCO	
Midwest - GE	125	Center	350MCM	#2/0	 U-2V1031B	U-3V1031B	
See Note 1					(or T)-CR-MEP	(or T)-CR-MEP	
Milbank	100	Left/ Center	250 MCM	#2/0	 U4382	U4383	
Murray	125	Center	350MCM	#2/0	 SN205CX	SN305CX	
Siemens	125	Center	350MCM	#2/0	 SUA2B21- 0MCO	SUA3B21- OMCO	
Square D See Note 1	125	Center	350MCM	#2/0	 U-2V1031B (or T)-CR-SQD	U-3V1031B (or T)-CR-SQD	

Note 1:B stands for Small NEMA hub opening (3/4" through 2½").T in place of B stands for Large NEMA hub opening (2½" through 4").B or T can be replaced with C or U indicating a hub cover plate factory installed.In Midwest stacks, MEP may be replaced by GE.See Table III for Blank Cover Plates.

When a hub is required for overhead service, specify hub size desired.

Table V-D Outdoor Indoor Vertical Modular Type Meter Stacks -- Bussed 5-Jaw Meter Sockets

	Amps	Pos of			Catalog Number	r	
Manufacturer	Per	Line	Single Module - Number of Meter Positions in Module				odule
	Pos	Bus	1	2	3	4	5

Without By-Pass Facilities -- Residential Use Only

Murray **			*	*	
Elec Products	125	Center	 UM229 RS	UM339 RS	

	Amps	Pos of			Catalog Numbe	r	
Manufacturer	Per	Line	Double Modules - Number of Meter Positions in Module				
	Pos	Bus	4	5 +	6	7	8

Without By-Pass Facilities -- Residential Use Only

Murray **			*	*	*	
Elec Products	125	Center	UM449 RS	UM549 RS	UM649 RS	

See Table III for Blank Cover Plates

For outdoor installations use rain-tight accessories as shown in manufacturer's catalog.

* Order Cat. No. UX001 WL (Fifth Jaw Assembly) and Cat. No. SX005M (Sealing Ring) for each meter position.

- ** Prefabricated bus connections. See manufacturer's catalog.
- + Upper right position provided with blank position and cover.

Table VI Meter Mounting for External Demand Metering Devices (SMDs)						
	Catalog Number					
Manufacturer	2-4 f	eeders	5 – 7 feeders			
	MES-108A	MES-104	MES-105	MES-104A		
Superior Electrical Enclosure, Inc. dba Delta Standard Products	MP-108A	MP-104	MP-105	MP-104A		
MAC Power Corp		PD-104	PD-105	PD-104A		
Metropolitan Electric Mfg		104	105			



Table VII-A Meter and Test Switch enclosure for S-based CT-rated meters 3-Phase, 4-W Y, 3-W Delta and 1-Ph 3-W Services					
Catalog Number					
Manufacturer	120/208 or 120/240 Volts	265/460 Volts			
Superior Electrical Enclosure, Inc. dba Delta Standard Products	MS10P-3CE-L MS-7P-1CE-L	MS10P-3CE-H MS-7P-1CE-H			
Milbank	UC-4718	UC-4660			
Navtech Inc.	MS10P-208 MS7P-240	MS10P-480			
ElectroTech	EMS208-10P	EMS480-10P			
SIEMENS / TALON	9837-0969 – SW 20A 8T FW ST 9837-0970 - SW 20A 13T FW ST	9837-0971 - SW 20A 13T FW ST			

Table VIII

Current Transformer Cabinets (Engineering Specification MES-142)

	Catalog Number			
Manufacturer	27" × 36" Cabinets	27" × 44" Cabinets		
Superior Electrical Enclosure, Inc. dba Delta Standard Products	4 CT	6 CT / 8 CT		
Electrotech Service Equipment Corp.	ES 142 H4 ES 142 V4 ES 142 C4 (1)	ES 142 H8 ES 142 V8 ES 142 C8 (1)		
MAC Power Corp.	400 CT	800 CT		
Metropolitan Electric Mfg. Co.	TC 4	TC 6		
Navtech Electrical Enclosures Inc.	CT 36	CT 44		

1) Combination Unit (CT and Switch)

Note: The Company will provide information for larger Installations AND Bus mountings.

Table IX

Trans-S Enclosure for Current Transformers and CT Socket Meter for Three Phase 4-Wire WYE and Single Phase Service (Residential and Commercial)

			Catalog Number	
Manufacturer	Amps Rating	Three Phase 120 / 208 Volts	Three Phase 265 / 460 Volts *	Single Phase 120/240V or Network 120/208V
	200 – 400	4CTS-3CE-L R4CTS-3CE-L (2)	4CTS-3CE-H R4CTS-3CE-H (2)	4CTS-1CE-L R4CTS-1CE-L
Superior Electrical	400 - 800	8CTS-3CE-L R8CTS-3CE-L (2)	8CTS-3CE-H R8CTS-3CE-H (2)	8CTS-1CE-L R8CTS-1CE-L
Enclosure, Inc. dba Delta Standard Products Δ	400 400 600 600 800 800	4CTS-3CESW-L (1)(5) 4CTS-3CESWB-L (4)(5) 6CTS-3CESW-L (1)(5) 6CTS-3CESWB-L (4)(5) 8CTS-3CESW-L (1)(5) 8CTS-3CESWB-L (4)(5)	4CTS-3CESW-H (1)(5) 4CTS-3CESWB-H (4)(5) 6CTS-3CESW-H (1)(5) 6CTS-3CESWB-H (4)(5) 8CTS-3CESW-H (1)(5) 8CTS-3CESWB-H (4)(5))	
	400	TS-400-208 TS/SW-400-240T ₍₁₎₍₅₎ TS/SW-400-240B ₍₄₎₍₅₎	TS-400-480 TS/SW-400-480T (1)(5) TS/SW-400-480B (4)(5)	TS - 400 - 240
Navtech Inc. Δ	600	TS-600-208 TS/SW-600-240T ₍₁₎₍₅₎ TS/SW-600-240B ₍₄₎₍₅₎	TS/SW-600-480T (1)(5) TS/SW-600-480B (4)(5)	
	800	TS-800-208 TS/SW-800-240T (1)(5) TS/SW-800-240B (4)(5)	TS-800-480 TS/SW-800-480T ₍₁₎₍₅₎ TS/SW-800-480B ₍₄₎₍₅₎	TS - 800 - 240
Milbank	400	U4808	U4807	
	800	U4810	U4809	
Electrotech	400	ETSSW-240T-4 ₍₅₎ ETSSW-240B-4 ₍₅₎ ETS-208-4 ₍₅₎	ETSSW-480T-4 ₍₅₎ ETSSW-480B-4 ₍₅₎ ETS-480-4 ₍₅₎	
Service Equipment	600	ETSSW-240T-6 ₍₅₎ ETSSW-240B-6 ₍₅₎	ETSSW-480T-6 ₍₅₎ ETSSW-480B-6 ₍₅₎	
Corp.	800	ETSSW-240T-8 ₍₅₎ ETSSW-240B-8 ₍₅₎ ETS-208-8 ₍₅₎	ETSSW-480T-8 ₍₅₎ ETSSW-480B-8 ₍₅₎ ETS-480-8 ₍₅₎	

* Enclosure shall be mounted on load side of a disconnect switch.

(1) Combination Unit (CT, meter socket enclosure and fused switch) – service entry: LineTop

(4) Combination Unit (CT, meter socket enclosure and fused switch) - service entry: Line Bottom

- (2) Remote meter enclosure is required.
- (5) Nema 1 rated cabinet "For Indoor Use Only"
- $\Delta~$ Add –SS at the end of the catalog number for Stainless Steel version.

Table X

*** FOR REFERENCE ONLY TO EXISTING INSTALLATIONS *** *** FOR NEW INSTALLATIONS USE TABLES VII-A & IX ***

Trans-A Enclosures for Current Transformers and Bottom Connected Meter for Nonstandard CT Services and 3-Wire Residential Use

		Catalog	Number
Manufacturer	Ampere Rating	120/208 or 120/240Volts	265 / 460 Volts *
		4CT-3CE-L	4CT-3CE-H
Superior Electrical	200-400	R4CT-3CE-L (2)	R4CT-3CEL-H (2)
Enclosure, Inc. dba Delta Standard		MA10P-3CE-L (3)	MA10P-3CE-H (3)
Products	400-800	8CT-3CE-L	8CT-3CE-H
	400-800	R8CT-3CE-L (2)	R8CT-3CE-H (2)
Navtech, Inc.	200-400	TA-400-208	
	400-800	TA-800-208	

* Enclosure shall be mounted on load side of a disconnect switch

- (2) Remote meter enclosure required
- (3) Remote meter enclosure

Table XI

*** FOR REFERENCE ONLY TO EXISTING INSTALLATIONS *** *** FOR NEW INSTALLATIONS USE TABLES VII-A & IX ***

Trans-A Enclosure for Current Transformers and Bottom-Connected Meter for 3-W Residential Use in Westchester (reference to <u>existing installations only</u>)

Manufacturer	Ampere Rating	Catalog Number
Thomas & Betts (aka Anchor)	400	100213-CE-HLO

To be supplied without current transformer. To be supplied with 7-Pole Test Switch (States Co. Catalog # 20-K-07-AW or approved equivalent).

Reference Material

DEFINITIONS

AUTHORITIES

The municipal authorities, and any other agencies legally authorities, and any other agencies legally authorized to regulate or inspect the customer's installation or equipment.

BUILDING

A structure which stands alone or is cut off from adjoining structures by fire walls.

COMPANY

Consolidated Edison Inc. its subsidiaries and our agents

CONTRACTOR

An individual, or group of individuals licensed by the authorities having jurisdiction, retained by the customer to perform electrical work.

COST OR EXPENSE

The cost of all materials and equipment, labor and other defined charges applicable thereto, plus a reasonable percentage of engineering, purchasing, the use of construction equipment and other costs of a general character, involved in connection with the work to be performed.

CUSTOMER(S)

A present customer or an applicant for Con Edison electric services.

FOOTPRINT UNIT

The parcel of land directly beneath a structure or unit, having the same perimeter dimensions as the structure or unit.

GROUND

A conducting connection, between an electrical circuit or equipment and earth, or some conducting body which serves in place of the earth, excluding the gas service pipe.

LINE

A system of poles, wires and fixtures, or the equivalent ducts, conduits, cables, etc. used for general distribution of electricity.

POINT OF SERVICE TERMINATION

The point at which the company terminates its service lateral and the customer's wiring begins.

SERVICE CONNECTION

Connectors attaching the company's conductors to the customer's wiring.

SERVICE DROP

The overhead service conductors installed by the company between the company pole or other aerial support and the first point of attachment to the building or intermediate support.

SERVICE ENTRANCE

That part of the customer's installation from the point of attachment or termination of the service lateral to and including the service equipment on the customer's premises.

SERVICE ENTRANCE CONDUCTORS

The service conductors or cable which extends from the point of attachment or termination of the service lateral to the terminals of the service equipment.

SERVICE EQUIPMENT

All equipment from the point of service termination, to and including, the metering equipment and the means of disconnect

SERVICE LATERAL

A system of company owned conductors and/or equipment for delivering electricity from the company's distribution system to the wiring system of a building or premises.

SET OF CONDUCTORS

A set of conductors is defined as one (1) conductor per phase plus a neutral conductor.

TEMPORARY SERVICE

Service to be used for a limited time for construction, exhibits, decorative or other purposes.

WIRE SIZE

Where stated, the size is in terms of both American Wire Gauge and Thousand Circular Mil (AWG/Kcmil) sizes and applies to copper conductors. Where the company will accept the use of aluminum conductors, a size must be selected having equivalent conductivity to the stated copper conductor.

Electric Reference Specifications and Drawings

Be advised that linked specifications may be updated at any time by the responsible Con Edison group. Please contact your Energy Services representative if there is uncertainty that the specification on hand is not the latest revision.

Spec/Dwg#	Title	Rev. Date
	SERVICE END BOXES	
<u>EO-6217-C</u>	Sealing Service Cable and Conduit	Mar-2019
<u>EO-6208-C</u>	Customers Electric Service Installation: Buildings with Basements at Property Line Indoor Metering	May-2022
<u>EO-6209-C</u>	Customers Electric Service Installation: Buildings with Basements Back of Property Line, Without Property Line Box Indoor Metering	May-2022
<u>EO-6210-B</u>	Property Line Splice Box Requirements for Building Back of Property Line	Jan-2020
<u>EO-6211-C</u>	Customers Electric Service Installation: Buildings Without Basements at Property Line Indoor Metering	May-2022
<u>EO-6212-C</u>	Customers Electric Service Installation: Buildings Without Basements Back of Property Line, Without Property Line Box Indoor Metering	May-2022
<u>EO-6214-C</u>	Customers Electric Service Installation: Buildings with Sub-sidewalk Space Outside of Property Line Indoor Metering	May-2022
<u>EO-6215-B</u>	Customers Electric Service Installation: Building with or without basement, Back of Property Line, Without Property Line Box Outdoor Metering	May-2022
MES 205	Service End Box for Indoor or Outdoor Locations 10" x 10" x 5"	May-2016
MES 215	Service End Box for Indoor or Outdoor Locations 24" x 12" x 8"	May-2016
<u>MES 400</u>	Service End Box for Co-occupied Service Pipe 12" x 12" x 8"	May-2016
<u>MES 484</u>	Service End Box for Indoor or Outdoor Locations 30" x 18" x 12"	Apr-2016
<u>EO-9525-B</u>	Customer's 120/208 Volt Electric Service Space Requirements for Company Cables in Service End Boxes 1-500 KCMIL Copper Con Edison Cables Per Phase	Apr-2007
<u>EO-9072-B</u>	Customer's 120/208 Volt Electric Service Space Requirements for Company Cables in Service End Boxes Max 2-500 KCMIL Copper Con Edison Cables Per Phase	Apr-2007
<u>EO-9073-B</u>	Customer's 120/208 Volt Electric Service Space Requirements for Company Cables in Service End Boxes Max 3-500 KCMIL Copper Con Edison Cables Per Phase	Apr-2007
<u>348209</u>	Customer's 265/460V Electric Service Space Requirements for Company Cables in Service End Boxes 1-500 KCMIL CU Con Edison Cables Per Phase	Apr-2007
<u>348210</u>	Customer's 265/460V Electric Service Space Requirements for Company Cables in Service End Boxes Max 2-500 KCMIL CU Con Ed Cables Per Phase	Apr-2007
<u>348211</u>	Customer's 265/460V Electric Service Space Requirements for Company Cables in Service End Boxes Max 3-500 KCMIL CU Con Ed Cables Per Phase	Apr-2007
	UNDERGROUND RESIDENTIAL DISTRIBUTION	
<u>EO-14221-C</u>	Splicing and Installation Direct Buried Service Cables	Feb-2005
<u>EO-16833-B</u>	Installation of Underground AC Service Lateral and External Loop Service to 1, 2 or 3 Family Semi-detached or Row Homes	Sep-2000
<u>EO-16696-D</u>	Clearance for Planting Around Transformer Pads	Sep-2018
<u>EO-5403</u>	Underground Copper and Aluminum Service Connection	Feb-2016

	OVERHEAD SERVICE CONNECTIONS	
<u>EO-6218-B</u>	Customer's Electric Overhead Service Conductors	Feb-2017
EO-100186	Non-tension Overhead Connectors for Aluminum or Copper Secondary	May-2015
<u>EO-8746-B</u>	Customer's Electric Services Overhead Services to Pipe Masts and Clearances	Jan-2018
<u>EO-16883-B</u>	Customer's Property Pole for Low Tension Service	Sep-2015
<u>324862</u>	Temporary Service for Maximum Span of 75 Feet on Same Side of Street	Feb-2016
<u>EO-4647-C</u>	Overhead Distribution Clearances	Jun-2020
<u>EO-13306</u>	3-phase 4/13kV Dead End Riser Pole w/Fused Disconnect Switches	Sep-2016
	METERING	
MEP-1	Installation Requirements for Low Tension Interval and AMI Metering and AMI Communication Infrastructure	Dec-2020
<u>MEP-8</u>	Low Tension Metering Installations	Dec-2020
<u>MES-528</u>	Space Requirements for Metering Closet	Sep-2021
<u>MES-394</u>	Outdoor Watt-hour Meter Sockets	Jul-2019
<u>MES-395</u>	Watt-hour Meter Sockets on Line Side of Service Disconnects	Jan-2018
<u>MES-447</u>	Watt-hour Meter Sockets on Load Side of Meter Disconnects	Jun-2020
<u>MES-194</u>	Self-contained Three-phase, Four Wire Watt-hour Meter	Jun-2019
310491 aka MES-745	Trans "a" Cabinet for Low Voltage 200 Amp or 400 Amp Service	Sep-1999
313067 aka MES-750	Trans "a" Cabinet for Low Voltage 400 Amp or 800 Amp Service	Sep-1999
<u>321388 aka MES-755</u>	Trans "S" Cabinet for Low Voltage 200 Amp or 400 Amp Service 3 Phase 4 Wire Service	May-2016
<u>321389 aka MES-757</u>	Trans "S" Cabinet for Low Voltage 400 Amp or 800 Amp Service 3 Phase 4 Wire Service	May-2016
EO-6817-C aka MES-195	Wiring Diagram – 200 to 800 Amp, Bar-Type Current Transformer	Jul-2022
<u>MES-751</u>	Form 9S Meter Socket Enclosure	Jan-2022
<u>MES-142</u>	Current Transformer Cabinet – Not more than 2 sets of 500 MCM Cu, or 750 MCM Al Cables per phase	Mar-2022
<u>EO-8608-B aka MES-298</u>	Current Transformer Cabinet – Three or Four Sets of 500 MCM Cu, or 750 MCM Al Cables per phase or Smaller	Dec-2020
EO-8413-D aka MES 377	Current Transformer Cabinet – Capacity Greater Than 4-600 MCM Cu or 4-750 Al Cables Per Phase	Jun-2019
EO-15934-B aka MES- 104A	Mounting Equipment 24" x 27" for demand metering devices revenue metering	Dec-2022
EO-16701-B aka MES-105	Service Equipment for Mounting Three Metering Devices	Jan-2018
EO-16697-B aka MES-108	Service Equipment for Mounting One Metering Device	Jan-2023
<u>EO-16589-B aka MES-</u> <u>108-A</u>	Mounting Equipment 14"x25½" for Demand Metering Devices – W/ Fuse Block	Mar-2018
EO-507256	Underground Electric A.C. Service to Pedestal	Oct-2015

PROPERTY LINE BOX CONFIGURATION		
EO-9700-C	Distribution Box Type B 3-6 for Field Construction 3'-6" x 2'-9" x 2'	Sep-1974
EO-10265-B	Customer Property Line Box Precast Concrete 3'-6" x 2'-9" x 2'	Sep-1992
EO-10266-B	Customer Property Line Box Precast Concrete 3'-6" x 2'-7" x 2' – Slotted	Aug-2018
EO-10262-C	Customer Property Line Box Field Constructed 4'-6" x 3'-6" x 4'	Oct-1999
EO-10263-B	Customer Property Line Box Precast Concrete 4'-6" x 3'-6" x 3'-11"	Feb-1993
EO-10264-B	Customer Property Line Box Precast Concrete 4'-6" x 3'-6" x 4' – Slotted	Aug-2018
<u>EO-10321-B</u>	Chimneys, Collars and Grading Blocks for Manholes & Vaults Construction and Installation	Jun-2017
EO-16820-C	Field Constructed Shallow Distribution Box Type S 4'-0" x 3'-0' x 4'4" MAX HR	Apr-2018
EO-13331-B	Distribution Box Type DB-6 6' x 4' x 5' HR	Dec-2016
341185	Cable Manhole Type M11-6 11'-6" x 4'-6" x 6'-6" Precast Concrete	Jul-2017
EO-11924-B	Customer's Property Line Cable Manhole Field Constructed 11'-6" x 4'-6" x 6'	Jan-1970
	PROPERTY LINE BOX – Cable Arrangements	
50 44626 P	120/208V; Company: 2 Sets of 4-500 KCMIL CU,	C 1000
<u>EO-11626-B</u>	Customer: 3 sets of 4-500 KCMIL CU	Sep-1990
EO-12809-B	120/208V; Company: 2 Sets of 8-4/O KCMIL CU,	May-2017
<u> </u>	Customer: 3 sets of 4-350 KCMIL AL	1010 2017
EO-11693-B	120/208V; Company: 4 Sets of 4-500 KCMIL CU,	Jul-2018
	Customer: 6 sets of 4-500 KCMIL CU 120/208V; Company: 4 Sets of 8-4/O AWG CU,	
<u>EO-12791-B</u>	Customer: 6 sets of 8-350 KCMIL CU	May-2017
<u>EO-12466-B</u>	120/208V; Company: 8 Sets of 4-500 KCMIL CU, Customer: 10 sets of 4-500 KCMIL CU	Apr-1985
EO-14608-B	120/208V; Company: 8 Sets of 4-500 KCMIL CU, Customer: 10 sets of 4-750 KCMIL CU	Dec-2017
<u>EO-11041-B</u>	120/208V; Company: 12 Sets of 4-500 KCMIL CU, Customer: 15 sets of 4-500 KCMIL CU	Apr-1985
<u>EO-11934-B</u>	120/208V; Company: 16 Sets of 4-500 KCMIL CU, Customer: 20 sets of 4-500 KCMIL CU	Apr-1985
<u>EO-12810-B</u>	120/208V; Company: 12 Sets of 4-500 KCMIL CU, Customer: 15 sets of 4-750 KCMIL AL	May-2017
<u>EO-12811-B</u>	120/208V; Company: 16 Sets of 4-500 KCMIL CU, Customer: 20 sets of 4-750 KCMIL AL	May-2017
<u>EO-12893-B</u>	265/460V; Company: 6 Sets of 4-500 KCMIL CU, Customer: 12 sets of 4-500 KCMIL CU	Apr-1985
<u>EO-12908-B</u>	265/460V; Company: 8 Sets of 4-500 KCMIL CU, Customer: 16 sets of 4-500 KCMIL CU	Apr-1985
<u>383330</u>	Outline of Copper Low Profile 7 Way 500kcmil Crab Joint – 6 Legs Limited, 1 Leg Not Limited With Pigtails 120/208 Volt	Jul-2013

Specifications for Electric Installations

	HIGH TENSION SERVICE	
EO-2022	General Specification for High Tension Service	Dec-2009
<u>MES-350</u>	High Tension Metering Installations General Requirements	Oct-2023
EO-13079-C	Neon Tube Indicator (Bus Installation)	Jul-2009
<u>EO-13782-C</u>	Low Voltage Phasing Facilities for 3 Phase, 4 wire 2400/4150 Volt Feeders Using 2 Potential Transformers and 3 Current Transformers (Schematic Connections)	Feb-2017
EO-16664-B aka MES-712	Panel Detail and Assembly Network Low Tension Auxiliary Available	Jan-2018
EO-16666-B aka MES-712-A	Panel Wiring Diagram Network Low Tension Auxiliary Available	Jan-2018
EO-16665-B aka MES-713	Panel Detail and Assembly Radial Low Tension Auxiliary Available	Mar-2018
EO-16667-B aka MES-713-A	Panel Wiring Diagram Radial Low Tension Auxiliary Available	Mar-2018
	PADMOUNT INSTALLATIONS	
<u>EO-6229</u>	Requirements for Installation of Single and Three-Phase Padmounted Transformers	Jun-2023
<u>EO-6242</u>	Installation Requirements for Oil-Filled Padmount Transformers Located Indoors or Near Building Doorways and Windowed Walls	Feb-2020
<u>EO-13827</u>	Installation Procedure for 4kV, 13kV, & 27kV Three Phase Dead Front Padmount Transformer	Jan-2020
<u>EO-12181</u>	Grounding for Pad-mounted Transformer and Switches	Jul-2019
	THIRD PARTY ATTACHMENTS	
<u>345216</u>	Licensee (Third-Party) Antenna Mounted in the Telecommunication Zone on Distribution Pole	Mar-2020
349498	Streetlight or Furniture Sidewalk Feed Fiberglass Splice Box Assembly	Dec-2017
<u>367892</u>	Underground and Overhead Electric Supply to Street Furniture	Mar-2022
<u>B-341</u>	Electric Services for Third Party Attachers	Dec-2019
EO-16286-C	Service Connection to Cable TV Power Supply	Mar-2020
<u>335241</u>	Pole Space Allocation and Telecom Clearances	Nov-2010
<u>340361</u>	Licensee (Third-Party) Antenna Mounted on Secondary or Guy Distribution Pole	Mar-2020
	MISCELLANEOUS	
<u>EO-14</u>	Specification for Cross-Linked Polyethylene Insulated Cables 5000 to 35000 Volts	Dec-1990
<u>EO-17</u>	Purchase and Test Specification for Ethylene Propylene Rubber Insulated Cables 5000 to 35000 Volts	Dec-2014
<u>EO-18</u>	Purchase and Test Specification for Insulated Network and Control Cables 600 Volts	Oct-2014
<u>EO-1007</u>	Membrane Method of Waterproofing Electrical Distribution Structures	Aug-2018
EO-1124	Vault Enclosures Chain-Link Type Fence and Accessories	Nov-2013
EO-1191	Painting of 460 Volt Network Protector Compartments Within Buildings	Jan-1990
<u>EO-2018</u>	Grounding of Metal Enclosures for Distribution Transformers	Sept-2017
<u>EO-2032</u>	Design Criteria for Ventilation of Transformer Vaults and Network Protector Compartments	Feb-2019
EO-2055	A.C. Services	Oct-2018
EO-2065	Low Tension A.C. Service Voltage Limits	Oct-2015

Specifications for Electric Installations

EO-2079	Design of 265/460 Volt Network Installations	Dec-2023
<u>EO-2080</u>	Design of 120/208 Volt Network Installations	Dec-2023
<u>EO-2113</u>	Transfer of Load from Company's Supply to Customer's Emergency Generators	Dec-2012
<u>EO-2115</u>	Handbook of General Requirements for Electrical Service to Dispersed Generation Customers	Dec-2022
<u>EO-3551-C</u>	Location of Risers on Poles	Jan-2018
<u>EO-4082</u>	Operation and Maintenance of Conduit System, Cables and Equipment on Private Property Low-Tension Metered Installations	May-1998
<u>EO-4379</u>	Purchase Requirements for Polyethylene (HDPE) Conduits	Aug-2018
<u>EO-5015</u>	Technical Specifications for Three Phase, Oil Filled, Metal Enclosed, Pad- Mounted Transformers	Sep-2022
<u>EO-5023</u>	Requirements for Construction of 265/460 Volt Network Installation	Mar-2003

50 5051	Design and Construction of 265/460 Volt Transformer Vault and Network	Mar 2010
<u>EO-5051</u>	Compartments by Contractors	Mar-2010
<u>EO-5132</u>	Sump Pumps for Underground Transformer Vaults	Jul-2007
<u>EO-12464-C</u>	Multiple 500 kVA Transformer Installations with CV 8-6 Crab Joint Vault	Mar-1984
<u>EO-12912-B</u>	Transformer Vault Type V13-6 Installation	Feb-2020
<u>EO-13073-B</u>	Vault Type BV7-8 Installation	Jun-1999
<u>EO-13109-B</u>	Vault Type V15-6 Precast Concrete	Nov-2020
<u>EO-13124-B</u>	Multiple V13-6 Vaults and BV7-8 Bus Vault for 500 or 1000 kVA 208 Volt Transformers (Gratings at Curb or Building Line)	Mar-2011
<u>EO-13895-B</u>	Multiple V13-6 Vaults and BV13-2 Bus Vault for 500 or 1000 kVA 208 Volt Transformers (Gratings at Curb or Building Line)	Mar-2011
<u>EO-100628</u>	Purchase Recommendation for Fiberglass Reinforced Epoxy Conduits and Fittings	Oct-2007
<u>EO-16889 aka</u> <u>MES-273-B</u>	Wiring Diagram for Metering 27Kv & 33Kv 3 Phase Service	Apr-2018
<u>EO-16890 aka</u> MES-273-A	Wiring Diagram for Metering 13Kv 3 Phase Service	Apr-2018
<u>EO-2034</u>	Electric & Gas Service to D.C. Railroad Properties	Oct-1995
<u>EO-2468-B</u>	Cable Manhole Type M 11-6 Installation 11'6"x4'6"x6'6"	Jul-2017
<u>EO-3299-D</u>	Phasing Facilities for 3 phase 3 wire High Tension Services	Jul-2009
<u>EO-3477</u>	Phasing Facilities for 3 phase 4 wire High Tension Services 2400v/4150v 3 Potential Transformers	Jan-2017
<u>EO-4019</u>	Testing of AC Feeders Operating at 4Kv-33Kv Feeders	Apr-2023
<u>EO-4035</u>	Operation & Maintenance of High Tension Equipment on Customer's Premises	Oct-2006
<u>EO-6025</u>	Application of Arc and Arc/Fire Resistant Cable Wraps to Distribution Cable	Jun-2008
<u>MES-166-A</u>	Wiring Diagram for 2400/4150v 3 Phase Service with 2 Potential Transformers & 3 Current Transformers	Jun-2018
<u>EO-1100</u>	Sealing of Service Ducts, Entrances and Bus Openings in Electrical Distribution Structures	Jul-2019
<u>EO- 100023</u>	Purchase Recommendation for Duct Sealing Compounds	Apr-2012
<u>EO-8007</u>	Installation of Precast Concrete Conduit	Oct-2003
<u>EO-8265-B</u>	Installation of Driven Ground Rods	Jul-2015
<u>EO-8302-B</u>	Primary and Secondary Cable Risers	Nov-2007
EO-100184	Purchase Recommendation for Paint Used in 460V Network Protector Compartments	Oct-2010

Summary of Requirements for Submetering

EXHIBIT A

Applicable to SCs 2, 8, 9, 12, and 13

Type of Customer	Type of Metering	PSC Approval
Assisted Living or Senior Living Facilities	Submetering not available	NA
Campgrounds, Recreation Trailer Parks, Marinas, or Parking Facilities (with electric vehicle charging stations)	Submetering available	No
New or existing Multi-Unit Residential Rental Premises, Cooperatives, or Condominiums	Submetering available	Yes
Master Metered, New, or Renovated Commercial Rental Premises	Submetering available	No*

*PSC approval will be needed if commercial tenants received directly metered service on 11/14/79.

EXHIBIT B

REQUEST FOR WAIVER MINIMUM INSULATION STANDARD

As the owner of the existing

Image: 1 Family ResidenceImage: 2 Family Residence

□ 3 Family Residence

□ 4 Family Residence

At _____

(Location)

I request a waiver from Con Edison of the Minimum Insulation Standards for Existing Buildings Converting to Gas or Electric Space Heating issued by the New York Public Service Commission for the following reason(s):

- □ Compliance with the standards will result in a payback period of greater than seven years. (Two estimates are attached)
- □ The dwelling is a historical building.
- The overall heat loss of the building does not exceed the total heat loss which would result from conformance with the Minimum Insulation Standards.
 (An engineering certification is attached.)

(Signature of Owner)

(Date)

(Address)

Received by Consolidated Edison Company of New York, Inc.

(Name and Title of Representative)

(Date)

EXHIBIT C

idison Ins ansar		
Request for an Electrical Inspection Checklist		
Consolidated Edison Company of New Yor	rk, Inc.	
Interim (I) Final Inspection (F)		
X Underground (UG) Overhead (OH)		
Case # Service Area/Borough:		
Service Address:		
tractor Name:		
ne:Contractor License #Date Sent:		
im or Final Inspections will not be performed prior to issuance of a Services Layout (2- duct is required, complete the interim items first and immediately notify Con Edison. C install facilities in the street. Additionally, Con Edison service work is generally complet t, receipt of "Certificate" and passing the Final Inspection.	Con Edison requires a minimum	
ntegory Description	Contractor Completed	
Sweep/ Sleeve Installed and Grouted Flush		
End Line Box/ Property Line Box Installed per current spec (See Blue Book)		
Curbs, Water & Sewer Installed w/Site at Final Grade		
Current Transformers Installed		

_	Consolidated Edison Company of New York, Inc. X Final Inspection (F)	
	ound (UG) Overhead (OH)	
ase #	Service Area/Borough:	
	ess:	
	ame:	
	Contractor License # Date Sent:	
nterim or Fina ew duct is rec nd install faci	al Inspections will not be performed prior to issuance of a Services Layout (2-80). Upon receipt of the Service Lay quired, complete the interim items first and immediately notify Con Edison. Con Edison requires a minimum of 30 litites in the street. Additionally, Con Edison service work is generally completed within 10-days of installation of of "Certificate" and passing the Final Inspection.) days to plan
Category	Description	Contractor Completed
	City /UW Certificate is 'Issued' ?	
	Is the Meter Pan Bonded, Installed and Wired to Con Edison Specification?	
	Is the installed metering equipment an approved model in accordance with Section VII of Blue Book?	
	Is the center line of the meter pan installed between 4' 6" and 5' 6" above grade for single or horizontal installations? The lowest meter socket on a vertical multiple position (3 meters or less) shall be no lower than 2' minimum from meter center line opening to finished grade level.	
Meter	Is there 3 feet of clear space in front of all service equipment? (See Section III of the Blue Book)	
Meter	Is there sufficient clearance between the electric and gas meters in accordance with Section IV of Blue Book?	
	If there are multiple meters, is the Part Supplied permanently marked on each meter pan?	
	Is there a main disconnect switch installed?	
	If there are provisions for a locking device, has the contractor installed the hardware to accept the lock?	
	Is there a driven ground installed?	
	CT Coils and 10-point Wiring Installed to Specification (when applicable)	
	End-line Box Installed to Specification(s) in accordance with Blue Book?	
	End-line Box to have 3' Clearance from gas meter (new point of entry only) in accordance with the Blue Book	
UG(F)	Copper Detail, Crabs and Ring Bus Installed to Specification(s) in accordance with Blue Book	
UG(F)	Copper Detail, Crabs and Ring Bus Installed to Specification(s) in accordance with Blue Book Customer Service/Gap Cables Installed to Specification(s) in accordance with Blue Book	
UG(F)		

EXHIBIT D

e conEdison a confedera, inc. company			
	Request for an Electrical Inspection Checklist Consolidated Edison Company of New York, Inc.		
X Interim	(I) Final Inspection (F)		
	und (UG) X Overhead (OH)		
	Service Area/Borough:		
	ess:		
	Name:		
Phone:	Contractor License # Date Sent:		
Interim or Final Inspections will not be performed prior to issuance of a Services Layout (2-80). Upon receipt of the Service Layout (2-80), if new duct is required, complete the interim items first and immediately notify Con Edison. Con Edison requires a minimum of 30 days to plan and install facilities in the street. Additionally, Con Edison service work is generally completed within 10-days of installation of facilities in the street, receipt of "Certificate" and passing the Final Inspection.			
Category	Description	Contractor Completed	
OH(I)	If a secondary riser is to be installed, is the riser installed on the preferred side: opposite of the direction of incoming traffic?		

	Consolidated Edison Co. Inc		
COT	Edison Moto las conper	Request for an Electrical Inspection Checklist	
		Consolidated Edison Company of New York, Inc.	
_	Interim (I) X Final Inspection (F)	
_	Undergro	ound (UG) X Overhead (OH)	
Ca	ise #	Service Area/Borough:	
Se	rvice Addı	ress:	
Co	ontractor N	Name:	
Ph	one:	Contractor License # Date Sent:	
ner and	w duct is re d install fac	nal Inspections will not be performed prior to issuance of a Services Layout (2-80). Upon receipt of the Service Lay equired, complete the interim items first and immediately notify Con Edison. Con Edison requires a minimum of 30 cilities in the street. Additionally, Con Edison service work is generally completed within 10-days of installation of t of "Certificate" and passing the Final Inspection.	0 days to plan
•	Category	Description	Contractor Completed
		City /UW Certificate is 'Issued' ?	
		Is the Meter Pan Bonded, Installed and Wired to Con Edison Specification?	
		Is the installed metering equipment an approved model in accordance with Section VII of Blue Book?	
		Is the center line of the meter pan installed between 4' 6" and 5' 6" above grade for single or horizontal installations? The lowest meter socket on a vertical multiple position (3 meters or less) shall be no lower than 2' minimum from meter center line opening to finished grade level.	
	Meter	Is there 3 feet of clear space in front of all service equipment? (See Section III of the Blue Book)	
		Is there sufficient clearance between the electric and gas meters in accordance with Section IV of Blue Book?	
		If there are multiple meters, is the Part Supplied permanently marked on each meter pan?	
		Is there a main disconnect switch installed?	
		If there are provisions for a locking device, has the contractor installed the hardware to accept the lock?	
		Is there a driven ground installed?	
		CT Coils and 10-point Wiring Installed to Specification (when applicable) Is the water pipe ground installed within 5 feet of the water service point of entry? (Westchester has no	
	General	constraint on ground location on water service for industrial or commercial application)	
		Is a customer property line pole installed? Keyed, cribbed, and anchored, if applicable?	
		Is the standpipe and mast height installed to Specification? (See Specification EO-8746-B)	
		If there is an existing service, did the contractor make the final connections using approved Con Edison connectors in accordance with specification EO-6218	
		If there is an existing service, did the contractor make the final connections using approved Con Edison connectors, all without taping in accordance with Specification EO-6218-B?	
		Is the Attachment Bolt the correct type for the installation in accordance with Specification EO-6218-B page 2?	
		Does the point of attachment comply in accordance with Specification EO-6218-B table 2?	
		Are the roof, balcomies, porches, etc.readily accessible to pedestrians? "Readily Accessible" for the purpose of this checklist is commonly defined as having a slope/grade of <= 45° and extending more than 1.5° from the structure. A If YES, are the conductors and attachment located at a minimum clearance of 10° vertical and 5° from any direction (3° below), when measured from the highest point of the roof, balcomies, porches etc.?	
		B.If No, Submit photograph clearly demonstrating a pitch of >45° , or request an inspection	
	OH(F)	Is the point of attachment at the proper height in accordance with Specification EO-4647-C Page 3? That is, minimum of 16' above sidewalk grade or 12' in Westchester where the service crosses spaces only accessible to pedestrian?	
		Is the point of attachment in the proper place with reference to the Weatherhead in accordance with Specification EO-6218-B? That is, below Weatherhead wherever practical, but no more than 2' from Weatherhead?	
		Is there a proper Weatherhead and is it facing down in accordance with Specification EO-6218-B?	
		Are the attachment and conductors installed more than 36" from windows and roofs not readily accessible to pedestrians? (EO-4647-C Page 4 Note 7)	
		Does the location of the Point of Attachment allow for the service conductors to be no less than 3" from the edge of a building or rain gutter down spout in accordance with Specification EO-6218-B Page 5?	
		Is point of attachment at a minimum distance of 12" from any telecommunication attachments in accordance with Specification EO-6218-B?	
		Are the service connections directly accessible by a 40 or smaller ladder placed on grade level in accordance with Specification EO-6218-B Page 7 Construction Note 8?	

Are the point of attachment and weatherhead located on opposite sides of a metal drain pipe? Service wires & drip loops are not permitted to cross metal drain pipe (Click here for Specification EO-6218-B Page 5)

Ways to Pay Your Bill EXHIBIT E

Our fast, efficient and convenient payment options make it easy for you to do business with us. In addition to the listed options below, visit <u>https://www.coned.com/en/accounts-billing/payment-options</u> to see which option works for you.

In Person

Customer Service Walk-In Centers are open Monday through Friday from 8:30 a.m. to 5:00 p.m. These locations accept Exact Payments only.

- Bronx : 1775 Grand Concourse Between 174th & 175th Street
- Brooklyn : One Metrotech Center at National Grid at Jay Street
- Manhattan : 122 East 124th Street at Park Avenue
- **Queens :** 89-67 162nd Street at National Grid office
- Staten Island : 1140 Richmond Terrace corner of Bard Avenue
- Westchester : 1 Bogopa Plaza, Mt. Vernon at Food Bazaar Supermarket corner of E. 3rd St and S. 3rd Ave

You can also pay your bill, at no charge, through an Authorized Payment agent. For nearest location, visit <u>https://www.coned.com/en/accounts-billing/payment-options</u>



e*bill: Good for you, good for the environment!

e*bill is a free and easy way to receive, view, and pay your Con Edison bill online while protecting the environment. More than a million customers now pay or receive their energy bills electronically — saving more than 112,000 pounds of paper and more than 1,300 trees, and preventing the release of more than 6,300 pounds of greenhouse gases each year.



Direct Payment

With nothing to mail, no checks to write, and no stamps to buy, Con Edison's Direct Payment Plan saves you time and money. It's easy, simple, free, and convenient.



Pay-by-Internet

If you have a bank account and access to the Internet, you can use the Pay-by-Internet program. The program is a secure and free way to transmit payment directly from your account.

REVISIONS LOG

Date	Page	Item
Aug-2014	73	Updated MES-377
Feb-2015	42	Updated E.1.c
Feb-2015	55,56, 60, 61, 63, 64	Updated Manufacturer name:
		Eaton, Cutler-Hammer,
		Eaton/Cutler-Hammer
Feb-2015	60	Updated Catalog #'s,
		added Eaton, Cutler-Hammer,
		Eaton/Cutler-Hammer for With
		Level Bypass single phase 5-jaw
		and three phase 7-jaw
Feb-2015	69	Updated Table IX
Feb-2015	73-77	Updated referenced specs
Mar-2015	61, 62	Updated Table IV-B
Mar-2015	63	Inserted Table IV-B:
		Indoor/Outdoor Vertical Meter
		Stacks – Bussed (5-jaw)
Mar-2015	69	Updated Table VIIA
May-2015	5, 6	Inserted clickable bookmarks in
		the Table of Content
May-2015	25	Removed page
		 – see Overhead checklist
May-2015	38	Revised disconnect & reconnect
		practice for 1,2,3 family home
		currently served with overhead
		service
May-2015	75	Uploaded revision MES-194
May-2015	83	Inserted Overhead Checklist
July-2015	78	Updated the specifications
July-2015	61	Added square D meter stack
		EZM316 125M10
August-2015	82,83	Updated inspection checklists
August-2015	75	Updated EO-507256
August-2015	75,77	Updated EO-5015; EO-6218-B
		and EO-8746-B
September-2015	77, 75	Updated EO-2032 + EO-16883-B
September-2015	76, 77	Added specs 383330 and
		EO-4379
October-2015	62	Updated Table IV – Added fused
		switch / Terminal box

November-2015	2	Add CEO Certification disclaimer
November-2015	75	Updated EO-4647-C
December-2015	78	Updated EO-4019
February-2016	77	Added EO-1007
February-2016	75	Updated 324862
March-2016	74	Updated EO-5403
March-2016	44	Renamed "Location" to part J
March-2016	75	Updated MES-377
April-2016	75	Updated EO-15934-B
May-2016	63	Updated Table IV – B
		Trough and Vertical Meter Stacks
June-2016	75	Updated EO-16697-B
June-2016	74	Updated MES-215 & MES-400
June-2016	75	Updated MES-195 & MES-142
June-2016	75	Updated 321388 & 321389
June-2016	78	Updated MES-350
July-2016	63	Updated catalog numbers for
		vertical meter stacks
September-2016	62	Updated catalog numbers for
		vertical terminal box
September-2016	56	Updated catalog number for
		Milbank meter socket
January-2017	62	Updated terminal box tables
January-2017	84	Updated overhead checklist
January-2017	77	Updated EO-2032
January-2017	75	Updated EO-4647-C
January-2017	78	Added 367892
February-2017	78	Updated EO-3477
February-2017	77	Updated EO-13782-C
February-2017	76	Updated EO-13331-B
March-2017	75	Updated EO-6218-B
May-2017	76	Updated EO-12811-B, EO-12810-B,
		EO-12809-B & EO-12791-B
May-2017	56, 57, 65, 66	Updated Midwest suffix to include GE
May-2017	50	Removed Rider's S and U. Added
		Rider T.
July-2017	50	Added "Or when demand response
		events are called under the BQDM
		Program – see Tariff leaf 78 & 79
July - 2017	78	Added EO-1100 & EO-100023
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March - 2019	13-16, 18-24, 38, 74, 77	Updated Standard service layouts, Section IIIB – Adequacy and Safety of Installation & Links to Specifications
April – 2019	53, 54, 57, 58, 61, 62, 63, 65, 74-78	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
October - 2020	29, 34, 44-45, 49-58, 85-90	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
April - 2021	29, 34, 45, 63-64, 71-73, 85-90, 95	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
October - 2021	30, 34, 43, 47, 66, 90, 91	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
April - 2022	12, 31, 73, 85-86, 88-90	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
November - 2022	3, 8, 40, 67, 71, 85-86, 89-90	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
June - 2023	8-10, 34, 40, 66, 76, 81, 86, 88-90, 93-96	Updates in greyed out boxes, Updated specifications dates in greyed out boxes
February - 2024	7, 28, 39, 40, 42, 66, 67, 71, 88, 89	Updates in greyed out boxes, Updated specifications dates in greyed out boxes

If you damage or pull a gas facility or SMELL GAS Call us immediately 1-800-75CONED once safely away from the leak.

And then:

- Keep all persons away from the area
- Follow directions from Emergency responders who arrive on-site.

Do not do anything to create a spark that could cause an explosion, such as:

- Light a match
- Turn appliance or lights on or off (including flashlights)
- Use a telephone or cell phone
- Ring a doorbell
- Start a car

