

Engineering Requirements

1. Table of Contents

1.	Table of Contents	1
2.	Purpose	1
3.	Applicable Standards.....	1
4.	Customer Submittals	1
5.	Requirements	2

2. Purpose

- 2.1 This standard outlines the requirements for high-rise meter rooms that are owned and maintained by the Customer. These meter rooms will house meters owned and maintained by NV Energy (NVE). The service facilities and equipment in these rooms are to be owned, operated, and maintained by the Customer. This standard applies only to secondary service installations rated 600 volts or less; any primary service (above 600 V) must be coordinated with NV Energy.
- 2.2 This standard applies to buildings with three or more floors (taller than 55 feet).
- 2.3 This standard does not constitute a complete design or construction guideline. Compliance with this standard is mandatory for service.

3. Applicable Standards

- 3.1 The Customer is responsible for ensuring that the meter room(s) and all related facilities comply with applicable codes, standards, and tariffs at the time of construction. This includes, but is not limited to:
- National Electric Code (NEC)
 - Electric Utility Service Equipment Requirements Committee (EUSERC)
 - Applicable state and local codes
 - Occupational Safety and Health Administration (OSHA)
 - NV Energy's Meters and Associated Equipment Requirements in Rule 16 tariff
 - All other relevant NVE standards, including but not limited to RPM-G, RPI-15, and RPI-G.
- 3.2 This standard does not exempt the Customer from complying with all applicable codes, ordinances, or industry standards.
- 3.3 In cases where this standard conflicts with any codes, ordinances, or industry standards, this standard shall take precedence when its requirements exceed those of the applicable codes, ordinances, or industry standards. If a conflict arises, the Customer must notify NVE in writing for resolution.

4. Customer Submittals

- 4.1 The Customer must obtain written approval from NVE for the installation of high-rise meter rooms.
- 4.2 The Customer's submittal to NVE must include all relevant engineering drawings for the building's electrical utility services and equipment. This includes, but is not limited to, single line diagrams, floor layouts, meter room layouts, and other necessary documents. Additionally, the submittal must include all applicable materials and design criteria specified in Section 5 and other relevant sections of RE-4, including but not limited to those addressing ventilation, fire protection, and construction.
- 4.3 Design submittals from the Customer must specify meter locations relevant only to the particular project. Approvals will not be granted for generic designs intended for future, unspecified use.

				Electric Service Requirements		RE-12
				Metering and Service Installation High Rise Meter Rooms		
Drawn:	Eng:	Appr:	Date:			Revision: 0
AM	AM	HW	11/25			Page 1 of 5

5. Requirements

5.1 Contents

- 5.1.1 Only metering, communications, and electronic equipment directly related to the electrical service may be installed in the meter rooms.
- 5.1.2 All unmetered electrical facilities shall be sealable and accessible only by NVE personnel.
- 5.1.3 Meter rooms must not contain water or gas services or equipment.
- 5.1.4 Meter rooms must not be used for storage.

5.2 Access

- 5.2.1 A signed Access to Equipment Agreement is required for all meter room installations.
- 5.2.2 Meter rooms shall be provided and maintained by the Customer and used exclusively for electric service equipment serving the building.
- 5.2.3 NVE personnel must have full, unimpeded access to all meter rooms 24 hours a day.
- 5.2.4 The Customer will provide keys to the meter room(s). NVE will supply a lockbox for the keys, which must be mounted externally on either side of the door at a height between 48 inches and 72 inches.
- 5.2.5 NVE personnel must be present for all Customer work performed on unmetered facilities. At least seven days' advance notice is required to schedule stand-by time for unmetered facilities, for which the Customer will be charged.
- 5.2.6 A lock-box (provided and installed by NVE) shall be permanently secured to the outer surface next to the keyed access panel providing entrance to the parking garage for the high-rise building. The customer shall provide a key to access the parking garage prior to delivery of service. This key is to be housed inside the lock-box for NVE access only. A reserved utility/maintenance parking space shall be provided adjacent to the meter room at that level or adjacent to elevator that gives access to meter rooms.

5.3 Location

- 5.3.1 The maximum number of meter rooms per meter room floor is two. Each meter room must be powered by only one transformer.
- 5.3.2 Meter rooms must be located starting from the ground level; sub-ground floor meter rooms are not permitted.
- 5.3.3 Meter rooms are allowed on at least every third floor, beginning from the ground floor.
- 5.3.4 Meter rooms must be positioned in the same location on each meter room floor.
- 5.3.5 A meter room entry door must be within 30 feet of an emergency exit (stairwell).
- 5.3.6 Ground floor meter room(s) must be accessible from the exterior of the building.
- 5.3.7 The service entrance switchboard must be located on the ground level, preferably on the exterior wall closest to NVE's existing distribution system. Refer to RPI-15 and RPI-G for additional location and access requirements.
- 5.3.8 Meter room conductors must be fed from the service entrance switchboard.
- 5.3.9 Meter rooms containing instrument-rated equipment must be located on ground-floor. Instrument-rated equipment may be installed in the meter room or mounted on the exterior wall of the building, however, it must be installed adjacent to the pull section. See RPI-30 for Instrument-rated equipment requirements.

5.4 Design

- 5.4.1 All equipment working space and egress requirements must comply with current NEC and NVE standards (see Figure 1).

				Electric Service Requirements		RE-12
				Metering and Service Installation High Rise Meter Rooms		
Drawn:	Eng:	Appr:	Date:			Revision: 0
AM	AM	HW	11/25			Page 2 of 5

Engineering Requirements

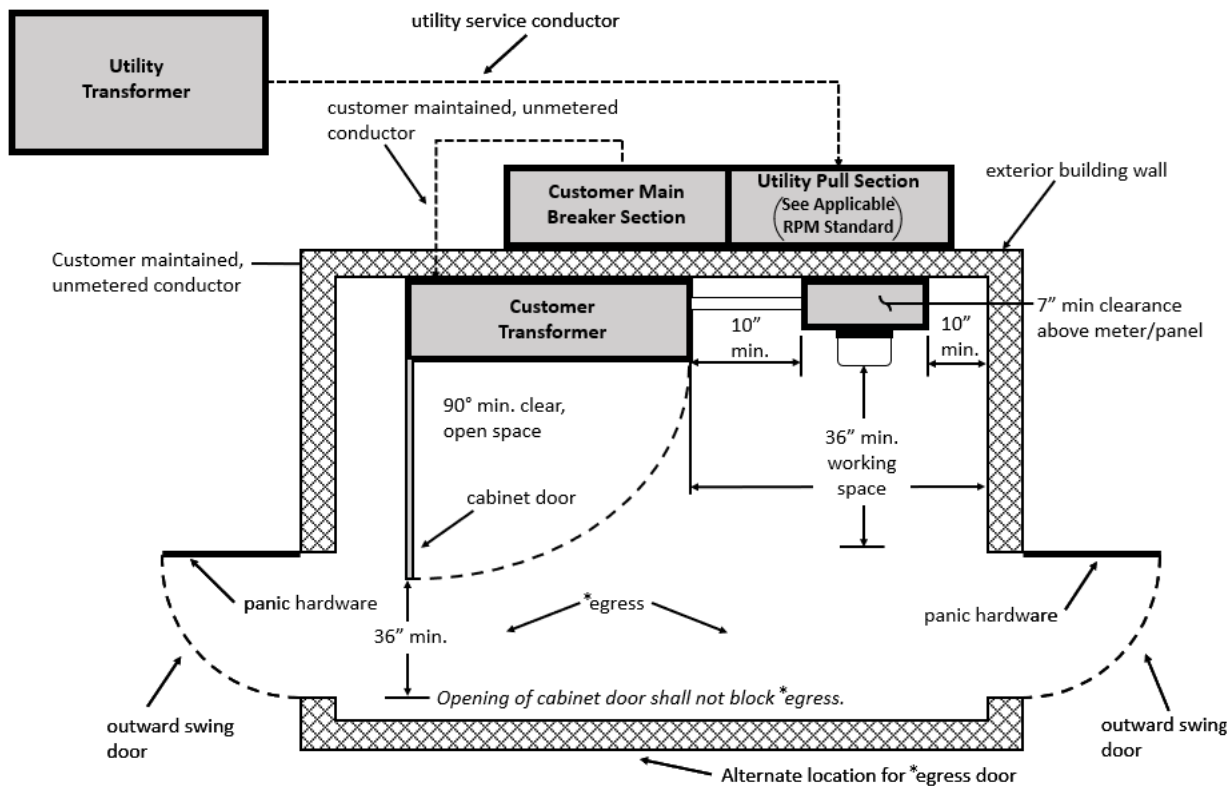
- 5.4.2 An EUSERC-approved service entrance switchboard with an NV Energy-approved pull section shall be installed per RPM-45 (or applicable RPM standard), RPI-15, and RPI-G. NV Energy will terminate its service conductors on the customers service bus or terminations located within the utility-side of the pull section. This point of connection shall constitute the official delineation of ownership and maintenance responsibility, with all equipment beyond this point owned and maintained by the customer, excluding NV Energy's metering devices.
- 5.4.3 A safe workspace in front of meters and the service entrance switchboard must be provided and comply with RPI-15, RPI-G, and NEC standards.
- 5.4.4 Refer to RPI-G Section 7 for acceptable ground level meter room locations and requirements for meter rooms situated above an underground structure.
- 5.4.5 The meter rooms must have at least one (1) 120 volt duplex outlet and at least one (1) switch-operated, 4 or 8 ft, ceiling-mounted, linear LED lighting fixture. Switch will be located inside room and convenient to access door. If two access doors, 3-way switches will be required with switches convenient to each door. The receptacle and lighting circuits must be connected to customers building power.
- 5.4.6 Meter rooms shall be designed to provide adequate fire protection, ventilation, and climate control in accordance with the requirements of RE-4, including but not limited to Sections 11 through 13.
- 5.4.7 Meter room walls, floors, and ceilings shall be constructed in accordance with RE-4 Section 10 and all applicable building codes.
- 5.4.8 Provision for a communication raceway is required and must be installed by the Customer.
- 5.4.9 Meter rooms are limited to equipment serving secondary voltages (600 V or less). Any service requiring primary voltage equipment (above 600 V) is outside the scope of this standard and must be coordinated with NV Energy for design and installation requirements.
- 5.4.10 Per NEC 450.14 (2023), each customer-owned transformer shall be provided with a visible, lockable disconnecting means located within sight of the transformer and installed on the supply side between the transformer and the upstream junction box, switchboard, or service equipment. The disconnecting means must be installed to allow safe maintenance or replacement without impacting service to other customers. Disconnecting means shall be clearly labeled and accessible only to qualified personnel.
- 5.4.11 The meter rooms must have house telephones linked to a manned location (for example, security or management office).
- 5.5 Door
 - 5.5.1 All meter room doors must open outward and be equipped with panic bars, pressure plates, or similar devices that operate under simple pressure.
 - 5.5.2 Meter room doors must have a minimum width of 36 inches and comply with local building codes.
 - 5.5.3 Meter rooms must meet all exit requirements specified by the NEC.
 - 5.5.4 Internal access doors within the meter rooms must be locked and accessible only to authorized personnel, including NV Energy.
- 5.6 Labeling and Directory
 - 5.6.1 Permanent and clear signage must be provided at the elevator exit and at each necessary turn to indicate the location of the meter rooms.
 - 5.6.2 All meter room entry doors must be permanently and clearly labeled with the text "METER ROOM".

				Electric Service Requirements		RE-12
				Metering and Service Installation High Rise Meter Rooms		
Drawn:	Eng:	Appr:	Date:			Revision: 0
AM	AM	HW	11/25			Page 3 of 5

Engineering Requirements

5.6.3 Each meter room must contain an information plaque placed at eye level on the inside of the meter room with the following information:

- 24-hour emergency contact telephone number.
- Total number of meters for that particular meter room.
- The addresses/services fed by each meter room. This can be provided in a wall mounted legend, or a wall mounted binder clearly labeled "Meter Room Directory".
- A map/legend with:
 - floor numbers.
 - directions to all other meter rooms on the premises from the current location.
 - current location .
 - locations of all other meter rooms on the premise in relation to the elevators.
 - location of main and sub-main disconnect switches.
 - exits (elevators and stairs) from present location to the outside of the building.

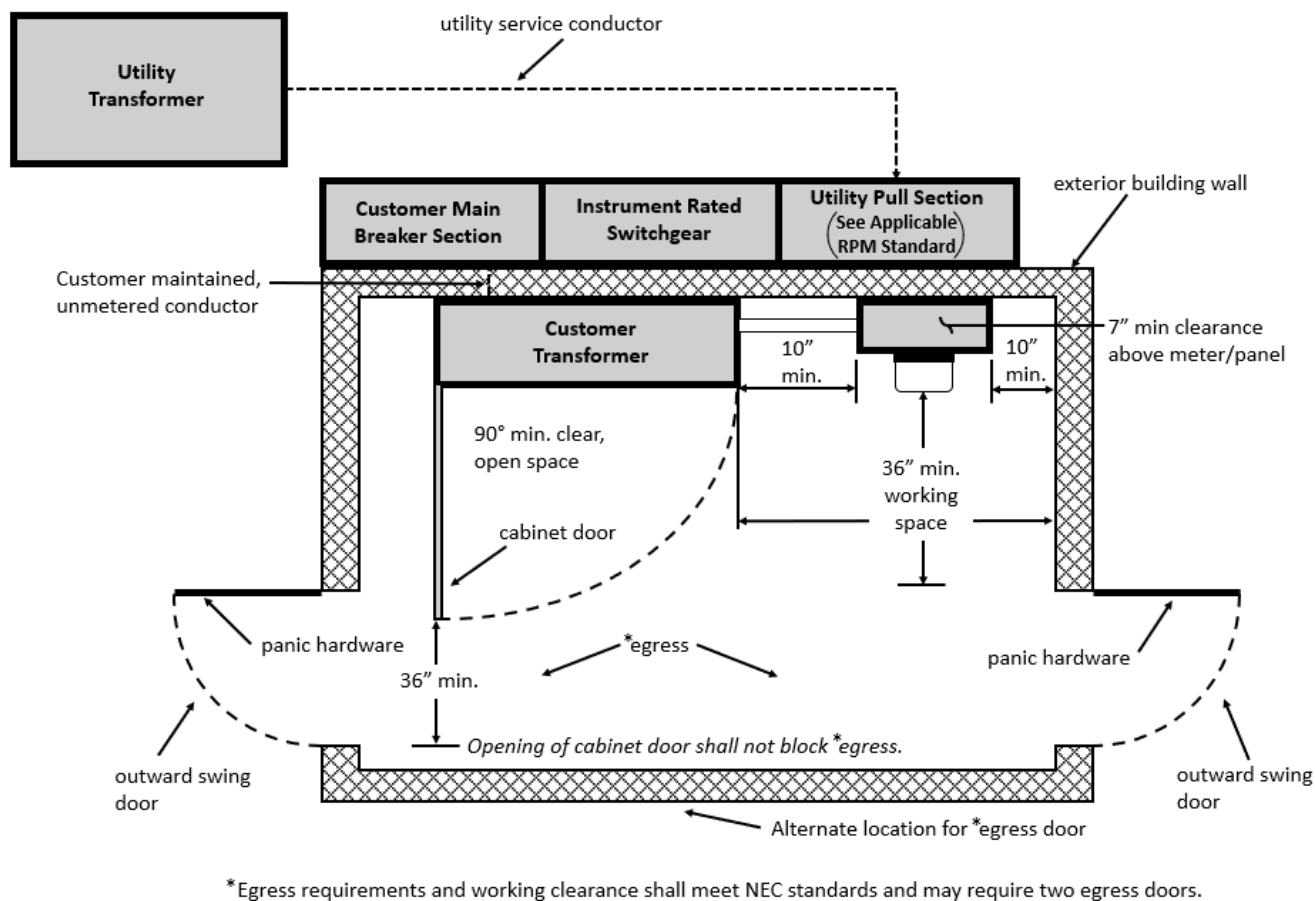


*Egress requirements and working clearance shall meet NEC standards and may require two egress doors.

Figure 1: Meter Room Detail

				Electric Service Requirements		RE-12
				Metering and Service Installation High Rise Meter Rooms		
Drawn:	Eng:	Appr:	Date:			Revision: 0
AM	AM	HW	11/25			Page 4 of 5

Engineering Requirements



**Figure 2: Instrument-Rated Meter Room Detail
(Ground Floor Only)**

				Electric Service Requirements		RE-12
				Metering and Service Installation High Rise Meter Rooms		
Drawn:	Eng:	Appr:	Date:	Revision: 0		Page 5 of 5
AM	AM	HW	11/25			