MONTANA-DAKOTA UTILITIES CO.

ELECTRIC SERVICE
RULES and REGULATIONS

Montana-Dakota Utilities Co.
400 N 4th Street
Bismarck, ND 58501

State of North Dakota
Electric Rate Schedule

TABLE OF CONTENTS
ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

			Page No.
Section	100	- GENERAL	
	101	Definitions	6
	102	Purpose	6
	103	Customer Obligation	6-7
	104	Liability	7-9
	105	Electrical Codes and Ordinances	9
	106	Wiring Adequacy	9
	107	Inspection of Wiring	10
	108	Permits, Certificates, Affidavits	10
	109	Consultation with the Company	10
	110	Unauthorized Use of Service	10-11
	111	Unauthorized Attachments to Poles	11
Section	200	- USE OF ELECTRIC SERVICE	
	201	Rate Schedules	12
	202	Resale of Energy	12
	203	Temporary Service	12
	204	Standby Service	12
	205	Parallel Service	12
	206	Transformer Installations on Customer's Premises	13
	207	Overhead to Underground Primary Conversion	14
Section	300	- ELECTRIC SERVICE AVAILABLE	
	301	Frequency	14
	302	Secondary Voltages	14-15
	303	Primary Voltages	15

Montana-Dakota Utilities Co.
400 N 4th Street
Bismarck, ND 58501

State of North Dakota
Electric Rate Schedule

TABLE OF CONTENTS
ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

			Page No.
Section	400	- SECONDARY VOLTAGE SERVICE (Under 600 Volts)	
	401	Secondary Voltage Service Connections	15
	402	Service Connections and Disconnections	16
	403	Number of Service Drops	16
	404	Services in Raceways	16
	405	Service Entrance Requirements	16
	406	Identification of Conductors	16-17
	407	Overhead Service Drops	17-18
	408	Secondary Voltage Underground Service	19
	409	Mobile Home Service	19
Section	500	- PRIMARY VOLTAGE SERVICE (2400 Volts or More)	
	501	General	19
	502	Service Entrance Equipment	20
	503	Overcurrent Protection	20
	504	Disconnecting Means	20
	505	Load Balance	20
Section	600	- METERING	
	601	General	20
	602	Meter Installations	21-22
	603	Meter-Switch-Fuse Wiring Sequence	22
	604	Meter Locations	23
	605	Indoor Metering	23
	606	Wiring Diagrams	23
	607	Labeling	23-24
	608	Seals	24

TABLE OF CONTENTS
ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

Section	700	- UTILIZATION EQUIPMENT	
	701	Interfering Loads	24
	702	Voltage Flicker and Harmonics	24
	703	Power Factor	24-25
	704	X-Ray Equipment	25
	705	Electric Welders	25
	706	Electric Motors	25-26
	707	Flashing Display Signs	26
	708	Fluorescent and Gaseous Tub Lighting	26
	709	Electric Heat Equipment	26
	710	Computers and Electronic Equipment	26
	711	Carrier Equipment	26

Montana-Dakota Utilities Co.
400 N 4th Street
Bismarck, ND 58501

State of North Dakota
Electric Rate Schedule

TABLE OF CONTENTS
ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

Page No.

ILLUSTRATIONS

Figure	1	-	Typical Service Attachment	27
Figure	2	-	Transformer Rated Metering, Padmount Transformer	28
Figure	3	-	Transformer Rated Metering, Overhead or Underground Service	29
Figure	4	-	Polyphase Self Contained Meter Connections	30
Figure	5	-	Typical Padmount Equipment Installation	31
Figure	6	-	Typical Transition Cabinet Installation	32

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

101. Definitions

Company – Montana-Dakota Utilities Co.

Customer – Any individual, partnership, corporation firm, other organization or government agency supplied with service by the Company at one location and one point of delivery unless otherwise expressly provided in these rules or in a rate schedule.

102. Purpose

These rules are intended to define good practice which can normally be expected, but are not intended to exclude other generally accepted standards and practices not covered herein. They are intended to ensure adequate service to the public and protect the Company from unreasonable demands.

The Company undertakes to furnish service subject to the rules and regulations of the Regulatory Commissions as supplemented by these general provisions, as now in effect or as may hereafter be lawfully established, and in accepting service from the Company, each customer agrees to comply with and be bound by said rules and regulations and the applicable rate schedules.

103. Customer Obligation

103.1 Application for Service – A customer desiring electric service must submit an application to the Company before commencing the use of the Company's service. The Company reserves the right to require a signed application or written contract for service to be furnished. All applications and contracts for service must be made in the legal name of the customer desiring the service. The Company may refuse service or terminate service to a customer who fails or refuses to furnish reasonable information requested by the Company for the establishment of a service account. Any customer who uses electric service shall be subject to the Company's rates, rules, and regulations and shall be responsible for payment of all service used.

Subject to rates, rules and regulations, the Company will continue to supply electric service until notified by the customer to discontinue the service. The customer will be responsible for payment of all service furnished through the date of discontinuance.

Any customer may be required to make a deposit as necessary.

103.2 Access to Customer's Premises – Company representatives, when properly identified, shall have access to customer's premises at all reasonable times for the purpose of reading meters, making repairs, making inspections, removing the Company's property, or for any other purpose incidental to the service.

103.3 Company Property – The customer shall not disconnect, change connections, make connections or otherwise interfere with Company's meters or other property or permit same to be done by other than the Company's authorized employees.

103.4 Relocated Facilities – Where Company facilities are located on or adjacent to a customer's premises where there is an encroachment(s) to electric facilities the customer shall be charged for line relocation on the basis of actual costs incurred by the Company including any required easements.

103.5 Notification of Unsafe Conditions – The customer shall immediately notify the Company of any unsafe conditions associated with the Company's electric facilities at the customer's premises.

103.6 Termination of Service – All customers are required to notify the Company, to prevent their liability for service used by succeeding tenants, when vacating their premises. Upon receipt of such notice, the Company will read the meter and further liability for service used on the part of the vacating customer will cease.

104. Liability

104.1 Continuity of Service – The Company's electric system is unusually widespread and has many interconnections with sources of power other than its own generating stations and it is subject to exposure by storms and other factors not under its control. The Company employs the latest developments in equipment and methods of operation for the purpose of maintaining adequate service. The Company will use all reasonable care to provide continuous service but does not assume responsibility for a regular and uninterrupted supply of electric service and will not be liable for any loss, injury, death or damage resulting from or caused by the interruption of the same.

104.2 Customer's Equipment – Neither by inspection or rejection, nor in any other way does the Company give any warranty, expressed or implied, as to the adequacy, safety or other characteristics of any structures, equipment, lines, appliances or devices owned, installed or maintained by the customer, leased by the customer from third parties or used on the customers premise. It is the obligation of the customer to consult with the Company regarding available maximum fault current and to provide such protection devices as may be necessary to safeguard the equipment and installation from interruptions, variation in voltage and frequency, single-phase energization of three-phase lines, reversal of phase rotation or other abnormal conditions. (Refer to Paragraph 710)

104.3 Company Equipment and Use of Service – The Company will not be liable for any loss, injury, death or damage resulting in any way from the supply or use of electricity or from the presence or operation of the Company's structures, equipment, lines, appliances or devices on the customer's premises, except loss, injuries, death, or damages resulting from the negligence of the Company.

104.4 Indemnification – Customer agrees to indemnify and hold Company harmless from any and all injury, death, loss or damage resulting from customer's negligent or wrongful acts under and during the term of service. Company agrees to indemnify and hold customer harmless from any and all injury, death, loss or damage resulting from Company's negligent or wrongful acts under and during the term of service.

104.5 Force Majeure – In the event of either party being rendered wholly or in part by force majeure unable to carry out its obligations, then the obligations of the parties hereto, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused. Such causes or contingencies affecting the performance by either party, however, shall not relieve it of liability in the event of its concurring negligence or in the event of its failure to use due diligence to remedy the situation and remove the cause in an adequate manner and with all reasonable dispatch, nor shall such causes or contingencies affecting the performance relieve either party from its obligations to make payments of amounts then due hereunder, nor shall such causes or contingencies relieve either party of liability unless such party shall give notice and full particulars of the same in writing or by telephone to the other party as soon as possible after the occurrence relied on.

The term "force majeure" as employed herein shall include, but shall not be limited to, acts of God, strikes, lockouts or other industrial disturbances, failure to perform by any third party, which performance is necessary to the performance by either customer or Company, acts of the public enemy or terrorists, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrest and restraint of rulers and peoples, civil disturbances, explosions, breakage or accident to machinery or electric lines, animal interference, sudden partial or sudden entire failure of electric transmission or supply, failure to obtain materials and supplies due to governmental regulations, and causes of like or similar kind, whether herein enumerated or not, and not within the control of the party claiming suspension, and which by the exercise of due diligence such party is unable to overcome; provided that the exercise of due diligence shall not require settlement of labor disputes against the better judgment of the party having the dispute.

The term "force majeure" as employed herein shall also include, but shall not be limited to, inability to obtain or acquire, at reasonable cost, grants, servitudes, rights-of-way, permits, licenses, or any other authorization from third parties or agencies (private or governmental) or inability to obtain or acquire at reasonable cost necessary materials or supplies to construct, maintain, and operate any facilities required for the performance of any obligations under this agreement, when any such inability directly or indirectly contributes to or results in either party's inability to perform its obligations.

105. Electrical Codes and Ordinances

The Electric Service Rules and Regulations contained herein are supplementary to and do not intentionally conflict with nor supersede the latest edition of the National Electrical Code, the National Electrical Safety Code, nor such state and municipal laws and ordinances that may be in effect in the areas in which the Company furnishes electric service, except that where the requirements of these Electric Service Rules and Regulations exceed those of such codes, laws, and ordinances, these Electric Service Rules and Regulations shall apply. Existing installations, including maintenance replacements, that currently comply with prior revisions of these rules and regulations, need not be modified to comply with these rules except as may be required for safety reasons.

106. Wiring Adequacy

Wiring codes provide minimum requirements for safety. Installation of wiring capacity greater than minimum code requirements is recommended to bring to the customer all the benefits of electric service and to protect building investment by minimizing obsolescence resulting from an inadequate wiring system.

107. Inspection of Wiring

Where permits and inspections covering customer's wiring and installation are required by local ordinance, it is mandatory that such requirements be fulfilled before the Company will make connections to the customer's installation. In locations where such inspections are not required by law or ordinance, an affidavit by the wiring contractor stating that the wiring has been done in compliance with the National Electrical Code will be acceptable.

108. Permits, Certificates, Affidavits

It is the responsibility of the customer to obtain all necessary permits, certificates of inspection or affidavits as required in Paragraph 107 above and to notify the Company promptly of any proposed alterations or additions to customer's load. Failure to comply with these requirements may result in delayed connection, interruption of service or damage to apparatus.

109. Consultation with the Company

109.1 The location, size and character of the customer's load and the current, voltage, frequency, phases, etc. which the Company has available at the customer's location will determine the type of service supplied to the customer.

109.2 Architects, engineers, contractors, electric dealers, wiremen and others must confer with local representatives of the Company to determine the type of service that will be available before designing or preparing specifications for new electrical installations or alterations to existing installations.

109.3 In all cases involving large installations and other cases where any doubt exists, full information as to the type of service available should be obtained from the Company.

110. Unauthorized Use of Service

110.1 Unauthorized use of service is defined as any deliberate interference that results in a loss of revenue to the Company. Violators are subject to prosecution.

110.2 Types of unauthorized use of service include, but are not limited to, the following:

(a) Bypass around meter.
(b) Meter reversed.
(c) Equipment connected ahead of meter.

(d) Tampering with meter that affects the accurate registration of electric usage.
(e) Electricity being used after service has been discontinued by the Company.

110.3 In the event that there has been unauthorized use of service, customer shall be charged for:
(a) All costs associated with investigation or surveillance;
(b) Estimated charge for non-metered electricity;
(c) All time to correct situation;
(d) Any damage to Company property.

110.4 A customer's service disconnected for unauthorized use of service shall be reconnected after the customer has furnished satisfactory evidence of compliance with Company's rules and conditions of service, and paid any charges which are due, including:
(a) All delinquent bills, if any;
(b) The amount of any Company revenue loss attributable to said tampering;
(c) Expenses incurred by the Company in replacing or repairing the meter or other equipment, costs incurred in the preparation of the bill, plus costs as outlined in Paragraph 110.3;
(d) Applicable reconnection fee;
(e) A cash deposit, the amount of which will not exceed the maximum amount determined in accordance with rules of the applicable State Public Service or Utilities Commission.

111. Unauthorized Attachments to Poles

111.1 The unauthorized attachment of any flags, banners, signs, clotheslines, antennas, etc. to Company poles is prohibited. The use of poles for placards or other advertising matter is forbidden. The Company will remove such unauthorized attachments without notice and may prosecute any such trespassers.

111.2 Customers are cautioned to locate antennas so that they are beyond falling distance from the Company's lines, either transmission or distribution. Antennas and lead-ins shall be located a safe distance from and shall never cross over or under the Company's lines or contact the Company's poles. The Company disclaims all responsibility where such equipment contacts the Company's lines, poles or equipment.

Section 200 - USE OF ELECTRIC SERVICE

201. Rate Schedules
Electric service will be billed under the rate schedule that applies to the class of service used. Rate schedules applicable to various classes of service may be obtained from the Company upon request.

202. Resale of Energy
The Company will not supply energy for resale except as expressly covered by special contract or where such provision is a part of the rate schedule.

203. Temporary Service
Temporary service is any service for construction work, carnivals, gravel pits, occasional lighting, etc., which is not expected to continue in use for a period long enough to justify the construction cost necessary for extending service. When temporary service is desired the customer shall, in addition to paying the scheduled rates, make deposit in advance in the amount of the Company's estimated cost of installing and furnishing such temporary service facilities together with the cost of disconnecting and removing same and the estimated billing to the customer for electric service. Final billing will reflect credit for the salvage value of materials used in providing the temporary service. Any deficiency in such advance payment shall be paid by the customer upon presentation of a bill by the Company. Any amount deposited in excess of final billing by the Company will be refunded to the customer.

204. Standby Service
Where electric service is supplied as standby to a customer's generating facilities or vice versa, the customer shall provide and install at the customer's expense a suitable double-throw switch or other device which will completely isolate the customer's power facilities from the Company's system. The service entrance shall be installed so that the phase conductors will be totally isolated from the customer's wiring before the standby unit is put into operation.

205. Parallel Service
Parallel operation of the customer's generating equipment with the Company's system shall be permitted to the extent provided in other approved rates.

206. Transformer Installations on the Customer's Premises

206.1 The Company will supply transformers to be installed on the customer's premises when requested by the customer and in accordance with the following paragraphs.

206.2 The customer shall agree to indemnify and save the Company harmless from any loss, damage, expense or liability, incurred or arising from, or out of the installation, operation, maintenance, repair or removal of its transformers, cables, conductors, apparatus and all other Company property, material or equipment placed on the customer's premises.

206.3 Company's power or distribution transformers will not be installed in the customer's building.

206.4 The Company will furnish, own and maintain conventional oil filled transformers at no cost to the customer. However, where dry type transformers, transformers containing a nonflammable insulating coolant or oil filled transformers of special voltage or design are required they shall be owned, installed and maintained by the customer at the customer's expense.

206.5 Padmount transformers may be installed on customer's premises. The customer shall furnish a suitable concrete pad, conduit, ground rod and service conductors as noted in Figure 5. Where the customer has more than four parallel conductors, a cable junction enclosure and conduits to the transformer location may be required. The customer shall consult with the Company to determine when a cable junction enclosure is required.

206.6 Where the transformer is installed adjacent to an asphalt or concrete driveway, parking lot, or walkway, the customer shall provide conduit from the transformer location to a point beyond the driveway, parking lot, or walkway to accommodate the Company's primary voltage cable. The customer shall provide barriers and clear zones to protect transformer from damage and to allow proper cooling and access to conductor compartments. The customer shall consult with the Company to determine the proper size conduit and protective barriers.

206.7 Refer to Figure 5 for additional information on transformer location.

207. Overhead to Underground Primary Conversion

When requested by property owners, underground distribution and services will be provided to replace existing overhead distribution to a group of owners cooperating with one another, providing:

(a) There exists a sufficient number (25) of homes on contiguous lots that are available for the conversion. At the Company's option, smaller groups could be acceptable.

(b) The terrain and other soil conditions are suitable for installation of underground facilities.

(c) Easements will be granted at no cost to the Company, wherever installed facilities are on private land.

(d) The customer, at customer's expense, must adapt the customer's electrical facilities to accept an underground service.

(e) The customer, or group of customers, provide payment for the cost of removal of overhead facilities and total installed cost, multiplied by the fractional life remaining, less the salvage value of the removed equipment. The customers may also be required to reimburse the company for other reasonable and prudent costs in excess of the Company's standard installation that result from the installation of the requested underground distribution.

Section 300 - ELECTRIC SERVICE AVAILABLE

301. Frequency

All service supplied by the Company is alternating current at a nominal frequency of 60 Hertz.

302. Secondary Voltages (See also Section 400)

302.1 In general, the following classes of service are normally supplied:

Phase	Wires	Nominal Voltage	Nominal Service
1	3	120/240	Single Phase Lighting & Power
3	4 Delta	120/240	Combined Light & Power *
3	4 Wye	208 Grd Y/120	Combined Light & Power
3	4 Wye	480 Grd Y/277	Combined Light & Power **
3	4 Delta	240/480	Combined Light & Power *

*Overhead Primary
**Underground Primary

Note: The Company follows the provisions of ANSI C84.1; latest revision, Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

302.2 Only one class of service voltage is provided to a single customer location.

302.3 Service at other voltages may be made available for approved loads upon special application to the Company. Supplying such service may require special construction and equipment by the customer and the Company. The details of such construction and equipment are subject to negotiation between the Company and the customer before service is supplied.

302.4 As the voltage and number of phases which will be supplied depend upon the character of the load, its size, and location, it is necessary that the customer consult with the Company regarding the type of service which will be furnished before proceeding with the purchase of equipment or the installation of wiring. (Refer to Paragraph 109)

302.5 The customer's wiring for single phase installations shall be such that the difference in loads on each side of the supply neutral shall not exceed 10% of the total load.

302.6 For three phase grounded wye installations, the load shall be balanced so that the difference in loads on the separate phases shall not exceed 10% of the total load.

303. Primary Voltages (See also Section 500)
Service may be made available at primary voltage of 2400 volts or higher. The available primary voltage is dependent upon the local primary voltage.

Section 400 - SECONDARY VOLTAGE SERVICE
(Under 600 Volts)

401. Secondary Voltage Service Connections
The location of the service connection is subject to approval by the Company. The Company will cooperate with the customer to the fullest extent practicable in determining such location. Once established, any change by the customer may result in billing to the customer for any additional work or materials required by the Company.

402. Service Connections and Disconnections

All connections or disconnections of overhead or underground services, regardless of the voltage, will be made by the Company at the point where the Company's facilities join those of the customer. No customer or agent of the customer will be authorized to make such connections or disconnections. (Refer to Paragraphs 103.1, 107, and 108.)

403. Number of Service Drops

In general, one service drop will be installed for each customer location. Exceptions will be made in special cases where it is mutually advantageous to the customer and the Company.

404. Services in Raceways

Where services are installed in raceways, the installations must comply with the requirements of the latest edition of the National Electrical Code. In addition, metered conductors shall not be installed in the same raceway as unmetered service conductors.

405. Service Entrance Requirements

405.1 The Company recommends that the service entrance for single family residences be not less than 100 ampere. The service entrance shall be sized and installed in accordance with provisions of the National Electric Code, state code, and local ordinances. Bare neutral wire shall not be installed in metallic conduit due to the possibility of radio interference.

405.2 Ample length of service entrance conductor shall be left protruding from the service head and at padmount equipment facilities to allow for proper connection to the service drop for overhead installations and to padmount equipment terminals.

405.3 When entrances are parallel in two or more conduits, all phases shall be run in each conduit and all wires shall be of the same length.

406. Identification of Conductors

406.1 For purposes of identification, the neutral wire of each single phase entrance shall be clearly marked at the service outlet as well as at the meter location.

406.2 Where 4-wire, three phase service entrances are installed, the neutral conductor and the "wild" phase conductor (nominal 208 volts to ground) shall each be clearly

marked at the service outlet, at the meter and at service equipment.

407. Overhead Service Drops

407.1 The service entrance shall preferably be through the eave and be located so the overhead service drop will be as short as practical and maintain all clearance requirements. (Refer to Figure 1 and Paragraph 407.4)

407.2 In cases where proper clearances cannot be maintained by attaching the service drop directly to the building, the customer shall install and maintain a supporting structure of sufficient mechanical strength to support the wires and of sufficient height to provide the necessary clearances.

407.3 The customer shall furnish and install the necessary facilities for firmly mounting a Company supplied service drop attachment.

407.4 Service drop conductors shall not be readily accessible and when not in excess of 750 volts, shall conform to the following general requirements (refer to the National Electrical Safety Code for possible exceptions):

Clearance over roof – Multiplex service drop conductors shall have the following minimum clearance over a roof:

10.0 feet - from the highest point of roofs or balconies over which they pass with the following exceptions:

Exception 1: The clearance shall be maintained at not less than 3.0 feet above roof or balcony not readily accessible.

Exception 2: Where a roof or a balcony is not readily accessible, and a service drop passes over a roof to terminate at a (through-the-roof) raceway or approved support located not more than 4.0 feet, measured horizontally from the edge of the roof, the clearance above the roof shall be maintained at not less than 1.5 feet for a horizontal distance of 6.0 feet from the raceway or support, and shall be maintained at not less than 3.0 feet for the remainder of the horizontal distance that the cable or conductor passes over the roof.

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

Note: A roof or balcony is considered readily accessible to a person, on foot, who neither exerts extraordinary physical effort nor employs special tools or devices to gain entry.

Clearance from ground – Multiplex service drop conductors shall have the following minimum clearance from ground:

18.0 feet - over roads, streets and other areas subject to truck traffic. Trucks are defined as any vehicle exceeding 8 feet in height.

18.0 feet - over driveways, parking lots and alleys. This clearance may be reduced to the following values:
- (1) 17 feet - where multiplex service drops cross over or run along alleys, driveways, or parking lots.
- (2) If the height of attachment to a building or other installations does not permit these requirements:
  - (a) 14 feet - over residential driveways for multiplex service drops limited to 150 volts to ground.
  - (b) 10 feet - over residential driveways for drip loops of service drops limited to 150 volts to ground.

14.0 feet - over spaces or ways accessible to pedestrians or restricted traffic only. This clearance may be reduced to the following values:
- (1) If the height of attachment to a building or other installations does not permit these requirements:
  - (a) 12 feet - for multiplex service drops limited to 150 volts to ground.
  - (b) 10 feet - for drip loops of service drops limited to 150 volts to ground.

24.5 feet - over swimming pools, or within 10 feet, measured horizontally, of the pool edge. In addition, there must be 16.5 feet clearance measured in any direction from every point on a diving platform or tower.

The vertical clearance is derived using the latest edition of the National Electric Safety Code rule and, where necessary, adding 2 feet for vertical movement safety factor adopted by Company.

408. Secondary Voltage Underground Service

408.1 Where the customer desires an underground service, the customer must furnish and install conduit from the line side of the meter socket to a point a minimum of 18 inches below grade. (Refer to Figure 1.) The customer shall also provide necessary conduit for services under any asphalt or concrete driveway, walkway, parking lot, or other areas where it is impractical to excavate.

408.2 If a customer requests to convert from an overhead service to an underground service, the customer must provide all necessary changes to the service entrance, including relocation, and the conduit described in 408.1 above. The customer must also provide a Company approved trench ready to accept the underground service conductors including back filling, surface restoration and any future settlement or erosion. If the customer requests the Company to provide this work, the Company will charge the customer for this service. In addition, if the service length is less than 150 feet, a fee equal to the Company's labor and equipment costs to convert the average 100 feet service line will be charged. If the service length is greater than 150 feet the customer will pay a fee equivalent to the Company's labor and equipment costs for the conversion.

409. Mobile Home Service

The customer shall install and maintain the metering pedestal or meter socket and meter mounting device. The customer, as the term is used in this section, is considered to be the mobile home court owner for installations in approved mobile home courts and the mobile home owner for installations on a private lot.

Section 500 - PRIMARY VOLTAGE SERVICE
(2400 Volts or More)

501. General

The Company offers electric service at primary voltages of 2400 volts or higher. A customer desiring to take service at primary voltage shall furnish and own all electrical equipment from the point of delivery and shall consult the Company to assist in determining the size, type and arrangement of service entrance equipment and conductor specifications required for the Customer's particular needs.

502. Service Entrance Equipment

The service entrance equipment shall perform the following functions:

a. Isolate the load from the supply circuit by visible means.
b. Automatically break the circuit in the event of overload.
c. Permit manual opening of the circuit at full load.

503. Overcurrent Protection

The need for overcurrent protective coordination requires consultation with the Company. Overcurrent protective devices may be as follows:

a. Fuses
b. Automatic trip circuit breakers

The overcurrent protective device must have an interrupting rating, at circuit voltage, equal to or exceeding the maximum short circuit current available at the location where service is taken.

504. Disconnecting Means

504.1 The disconnect switch shall provide visible evidence that the circuit to which it is applied is open or disconnected. It shall be located on the supply side of the circuit.

504.2 Where fuses are used, the disconnect switch shall be a gang operated load break switch.

504.3 Where automatic circuit breakers are used as circuit protective equipment, the disconnect switch can be non-load break.

505. Load Balance

Loads on the three phases shall be balanced as closely as possible. The maximum unbalance permitted between individual phase loads is 10% of the total three phase load.

Section 600 – METERING

601. General

The Company will install the necessary meters to measure the electrical energy delivered under each account for a particular class of service.

602. Meter Installations

602.1 The Company will furnish all meters required for billing purposes. It shall be the customer's responsibility to furnish, install and maintain the meter mounting device. Company approved specifications for electric meter sockets and metering transformer enclosures are listed below:

Self-Contained Meter Sockets – Single-Phase, Three-Phase and Multiple Position Type

1. The customer will utilize meter sockets from a Company approved list of manufacturer and models as posted on the Company's website.
2. U.L. approved, ringless style.
3. 100 ampere minimum for overhead service installations.
4. 150 ampere minimum for underground service installations.
5. Stud connectors are required for all sockets rated 320 amps or greater.
6. For sockets rated below 320 amps, study connectors are recommended. Only Company specified meter sockets are approved with lay-in connectors.
7. Equipped with a fifth terminal in the nine o'clock position where network metering is required.
8. A lever by-pass feature is required for all commercial and industrial installations. Upon review by Company, an exemption may be provided.
9. A lever by-pass feature is recommended for all residential installations.

Metering Transformer Rated Meter Socket

1. U.L. approved, ringless style with a one piece cover.
2. Minimum size must provide space for test switch installation.
3. Socket must have six terminals for single phase and 13 terminals for all other configurations.
4. Automatic by-pass feature is not acceptable.
5. The customer will utilize instrument rated meter sockets from a Company approved list of manufacturer and models.

Metering Transformer Enclosure (Secondary Service)

1. Recommend a durable, weather-resistant finish and weatherproof seal.
2. Must be provided with hinge-type cover and provisions to attach locking or sealing device.
3. Minimum size 10" x 24" x 30" with suitable mounting brackets for current and voltage transformers.

4. Consult with Company prior to purchasing any metering transformer enclosure.

602.2 Self-contained rated meter sockets shall be placed outdoors.

602.3 On instrument rated meter sockets, the Company will furnish and install the metering transformers. Such meter sockets shall be arranged for outdoor metering. (Refer to Figures 2 and 3.)

602.4 Where a secondary metering transformer enclosure is required, the customer shall furnish and install an enclosure. Such enclosures shall contain only the service entrance conductors and metering transformers. The metering transformers shall be installed on the line side of the customer's disconnecting device. Suitable lugs, connectors, etc. for connecting metering transformers to service mains shall be provided by the customer. (Refer to Paragraph 602.1)

602.5 For installations having switchboards, the metering transformers may be mounted in the switchboard bus, provided they are accessible for changing and testing. Metering transformers shall be mounted on the source side of the main switch.

602.6 Meters and test switches may be mounted on a suitable unhinged panel adjacent to the metering transformer enclosure.

602.7 No device other than a Company-owned or Company-approved device shall be placed into or ahead of the meter socket.

603. Meter-Switch-Fuse Wiring Sequence

For all secondary voltage metering installations the meter, entrance switch and main line fuse or breaker shall be installed in the order named with respect to power flow. All circuits downstream from the meter shall have proper overcurrent protection devices. Additionally, for 480 volt installations, a customer-owned, non-fused, main service switch shall be installed on the source side of all 480 volt, self-contained meters. This switch shall be located no closer than three feet either left or right of the meter socket, and the switch cover is sealed by the Company. The switch shall be labeled “Utility Disconnect”. By exception and upon consultation with the Company, an overcurrent circuit breaker may be installed ahead of a gang style metering installation with 6 or more sockets as an Emergency Disconnect. Access to the Emergency Disconnect Switch shall be lockable and shall be locked by the Company.

604. Meter Locations

604.1 Each meter shall be located outdoors in a place of convenient access where it will not create a hazard. The location shall be agreed upon by the customer's representative and the Company. (Refer to Figure 1.)

604.2 Meters shall be located so that there is not less than 3 feet of unobstructed space, from the ground up, in front of the meter so that the center line of the meter is not less than 4 feet nor more than 5 feet above the floor, ground, or permanent platform from which the reading will be taken. On group installations, the minimum height is 2 feet - 6 inches and the maximum is 6 feet. The minimum center spacing between meter sockets shall be 7 ½ inches horizontally and 8 ½ inches vertically.

604.3 Meter Sockets shall be permanently mounted on secure structures such as houses, buildings, poles, etc. All required conduit will be provided by customer. (Refer to Figures 1, 2, and 3.)

604.4 Enclosures shall not be placed over the meter socket unless approved by the Company.

605. Indoor Metering

Meters shall be located outdoors as noted in Paragraph 604.1. However, depending on the circumstance and after consulting with the Company, locating the meters indoors may be approved on a case by case basis. Where approved, indoor meters for multiple dwellings, large office buildings, etc. shall be grouped and located as near the service entrance location as practicable. In the event such location renders the automatic meter reading equipment ineffective customer will be responsible for costs associated with remedying the situation.

606. Wiring Diagrams

Typical wiring diagrams for various types of self-contained meters are shown on Figure 4. These are subject to change from time to time with advancement in available metering equipment.

607. Labeling

Where two or more meter mounting devices are installed at one location, each shall be labeled so that it may be identified as to the customer served. Electrical contractors are requested and cautioned to check and identify wiring circuits carefully to avoid metering errors due to incorrect circuitry. Permanent (mechanically fastened) engraved plates

shall be placed on the exterior of the meter base on a non-removable panel.

608. Seals

All meters and all points of access to customer wiring on the source side of the meter will be sealed by the Company. All cabinets and switch boxes, either inside or outside of the building which contain unmetered wires, shall have provisions made for sealing before service will be supplied.

Section 700 - UTILIZATION EQUIPMENT

701. Interfering Loads

Whenever a customer's utilization equipment has characteristics which cause undue interference with the Company's service to other customers, the customer shall provide, at customer's expense, the necessary equipment to prevent or eliminate such interference. The Company may install and maintain at the customer's expense the necessary equipment to eliminate such interference if it deems it advisable. When a customer's equipment or method of operation causes such interference and the customer does not correct the condition after being so requested by the Company, the Company reserves the right to discontinue the electric service, following written notification of its intent to do so; and service will not be re-established until the conditions complained of have been corrected.

702. Voltage Flicker and Harmonics

702.1 The Company uses the latest revision of the IEEE Standard 141 as the guideline for the maximum allowable voltage flicker that can be caused by a customer's load as measured at the point of metering. This guideline refers to the momentary dip in voltage that may result from the customer's operation of switches, starting of motors, etc.

702.2 Customer's electric load shall comply with the recommendations within Section 10 of the latest revision of the IEEE Standard 519 "Recommended Practices & Requirements for Harmonic Control in Electric Power Systems" at the point of metering connection.

703. Power Factor

Whenever the customer's utilization equipment is of such characteristics as to produce a low power factor, the Company reserves the right to require the customer to raise such power factor, at the customer's expense, or to pay additional charges as provided in

certain of the Company's rates on file with the Regulatory Commission of the state wherein the customer is located.

704. X-Ray Equipment
At the option of the Company, x-ray equipment may be separately metered and/or supplied from separate transformers.

705. Electric Welders
Electric welding apparatus shall require special arrangements with the Company to determine its ability to serve before installation is made. (Refer to Paragraph 703)

706. Electric Motors
706.1 Motors are normally designed to operate at their rated voltage, plus or minus 10%; thus a 220 volt motor should operate satisfactorily at 208 volts or 240 volts.

706.2 To assure adequate safety to personnel and equipment, the customer shall provide and maintain protective devices in each phase to protect all motors against overloading, short circuits, ground faults and low voltage, and to protect all three-phase motors against single-phasing and phase reversal.

706.3 Motors for use at 120 volts single-phase are limited to locked rotor currents of 25 amperes if started more than 4 times per hour, and 50 amperes if started less frequently.

Motors for use at 208 or 240 volts single-phase will generally be limited to 3 h.p. and a maximum of 4 starts per hour. The Company must be consulted for single-phase motors above 3 h.p. Compensating starting equipment may be required to limit the starting current and when required, shall be furnished by the customer. (Refer to paragraph 702)

706.4 The size of three-phase motors permitted will depend upon the effect starting the motor has upon the customer's system and the Company's other customers in the area. This effect will depend upon the magnitude of the starting current and the frequency of starting. (Refer to Paragraph 702)

When necessary, the customer will be required to reduce the amount of starting current to an acceptable level by installing suitable motor-starting equipment or by using motors designed for smaller starting currents.

706.5 When more than one motor can start simultaneously, the sum of the maximum starting currents of those motors starting simultaneously and also the sum of their horsepower rating shall be furnished to the Company to determine when reduced voltage starting may be required.

707. Flashing Display Signs

The Company reserves the right to refuse service for "flashing" display signs or display lighting where such service would interfere with voltage regulation of the secondary system.

708. Fluorescent and Gaseous Tube Lighting

High power factor ballasts or transformers must be used for fluorescent, sodium vapor, neon or other gaseous tube lighting equipment. It is required that such equipment operate at a power factor of not less than 90% lagging.

709. Electric Heat Equipment

A customer planning to install resistance type heating, heat pump, electric furnace, electrode boiler, etc. shall consult with the Company, before purchasing the equipment, so that operational modes of this equipment are determined to be acceptable for connection to the Company's distribution system. It is important that consultation is obtained prior to installation of this equipment so the Company can provide adequate capacity to efficiently serve the customer's requirements.

710. Computers and Electronic Equipment

Computers and other sensitive electronic equipment which require high grade, uninterrupted power may, on occasion, experience problems when connected directly to the Company's distribution system. The customer should contact their equipment supplier or consultant to ascertain the need for lightning arresters, surge suppressors, isolation transformers, and standby or uninterruptible power supplies. (Refer to Paragraph 104.2.)

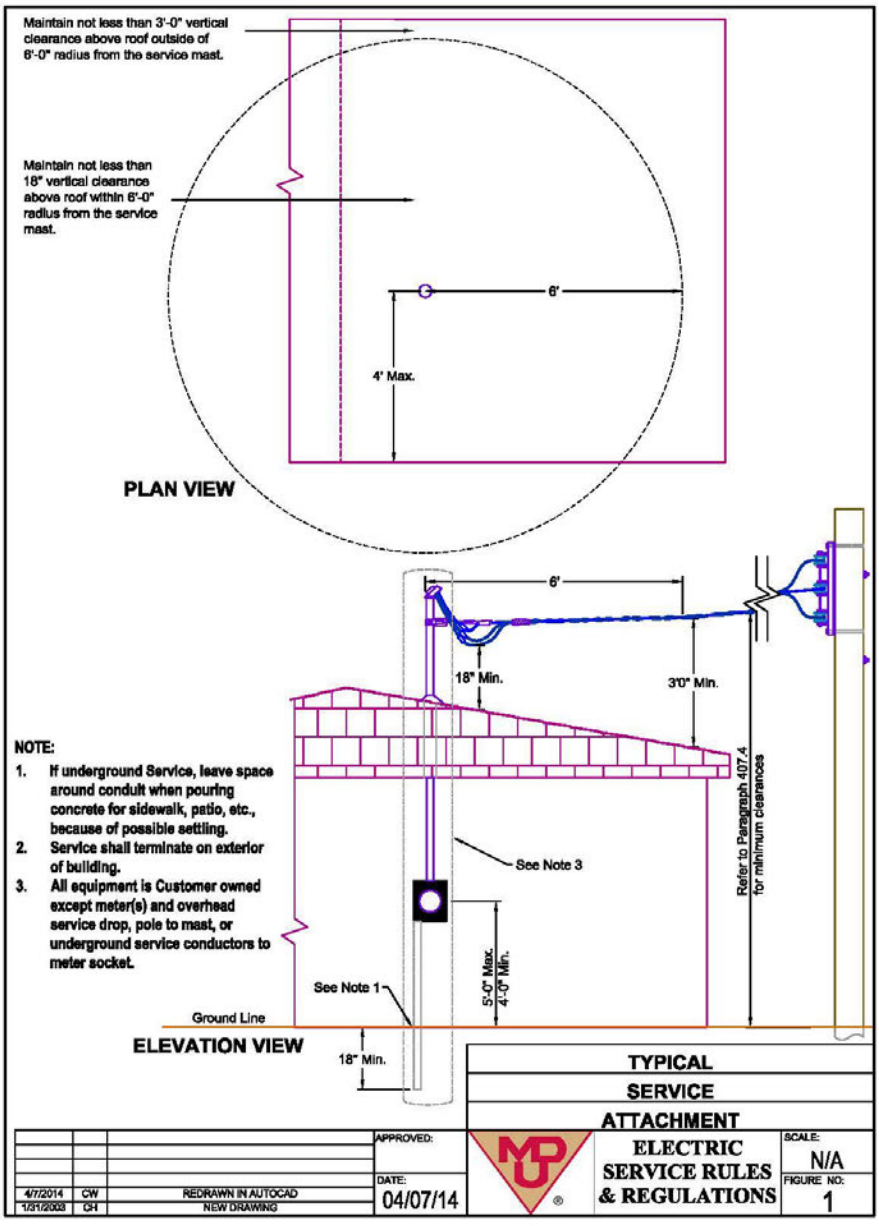
711. Carrier Equipment

The customer shall not impose, or cause to be imposed, any electric signal of any frequency or magnitude upon the Company's distribution system.

Montana-Dakota Utilities Co.
400 N 4th Street
Bismarck, ND 58501

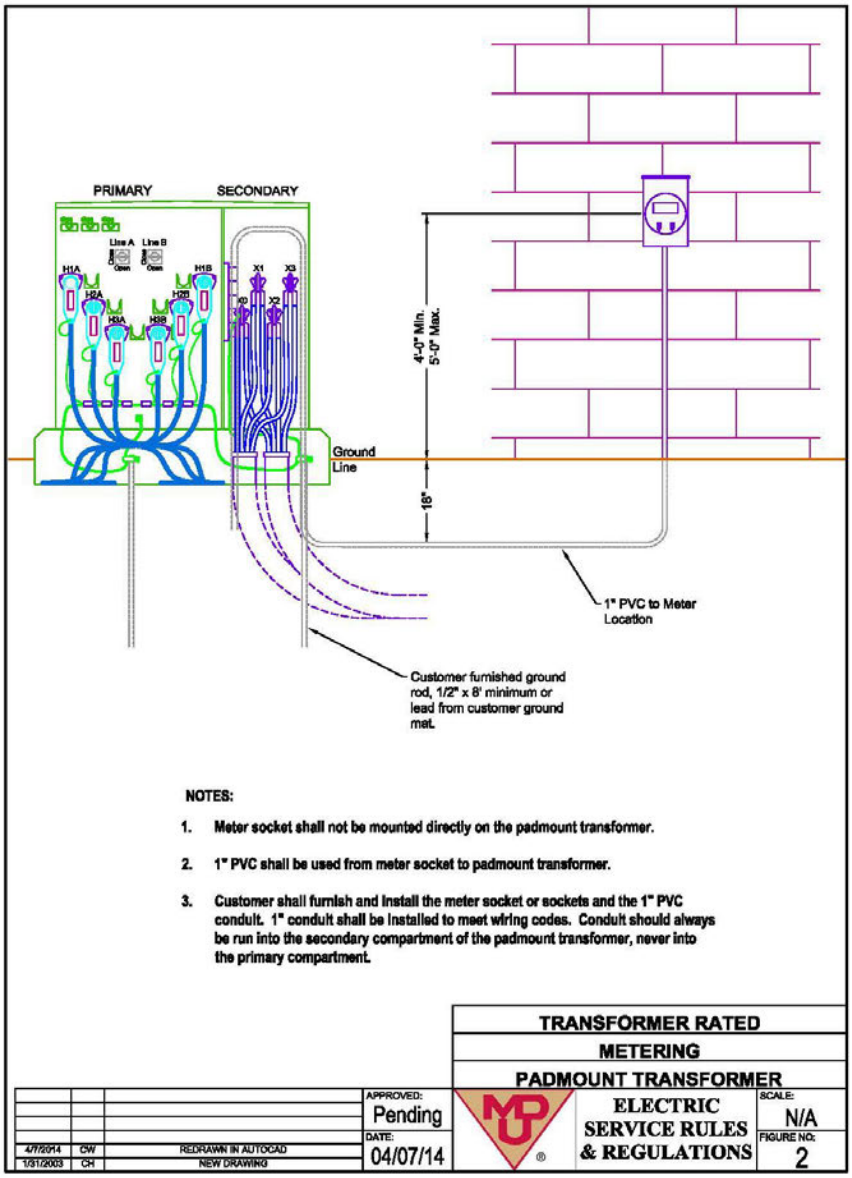
State of North Dakota
Electric Rate Schedule

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110



Date Filed:	May 16, 2022	**Effective Date:**	Service rendered on and after July 1, 2023
Issued By:	Travis R. Jacobson Director – Regulatory Affairs	**Case No.:**	PU-22-194

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110

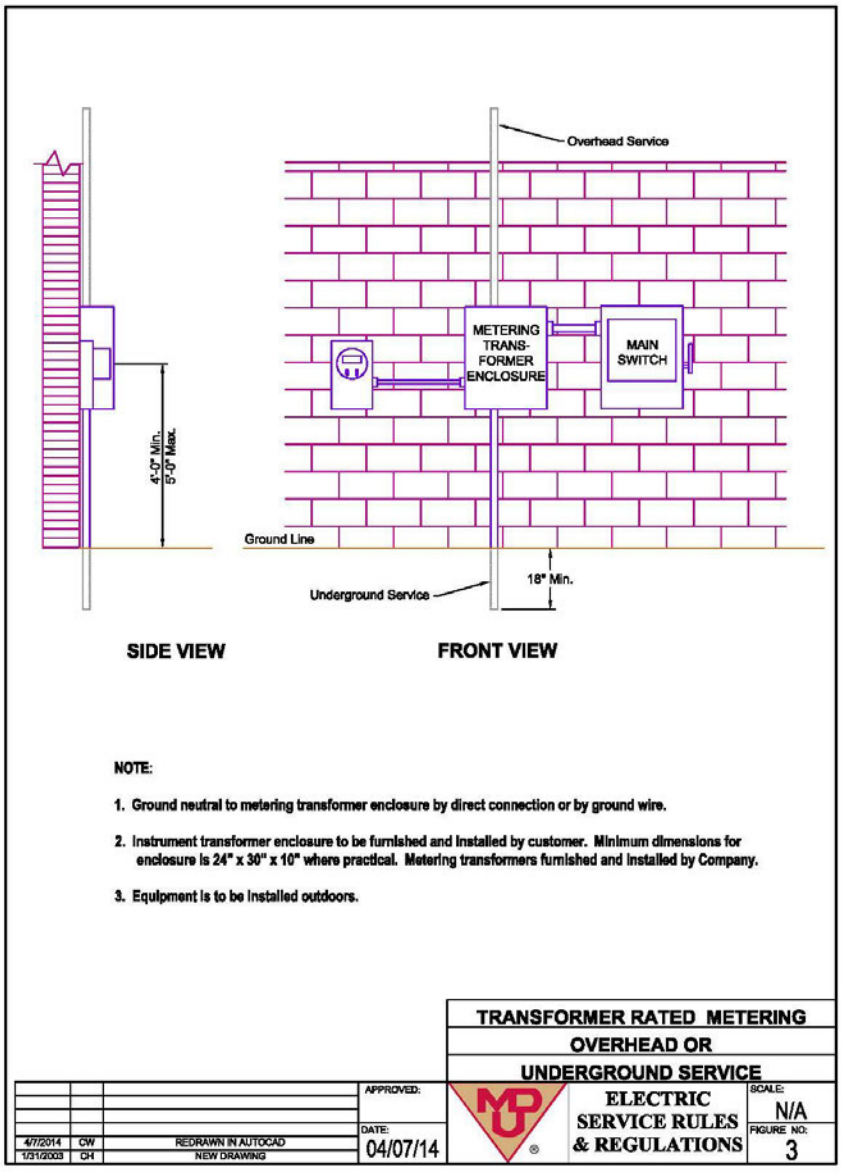


NOTES:

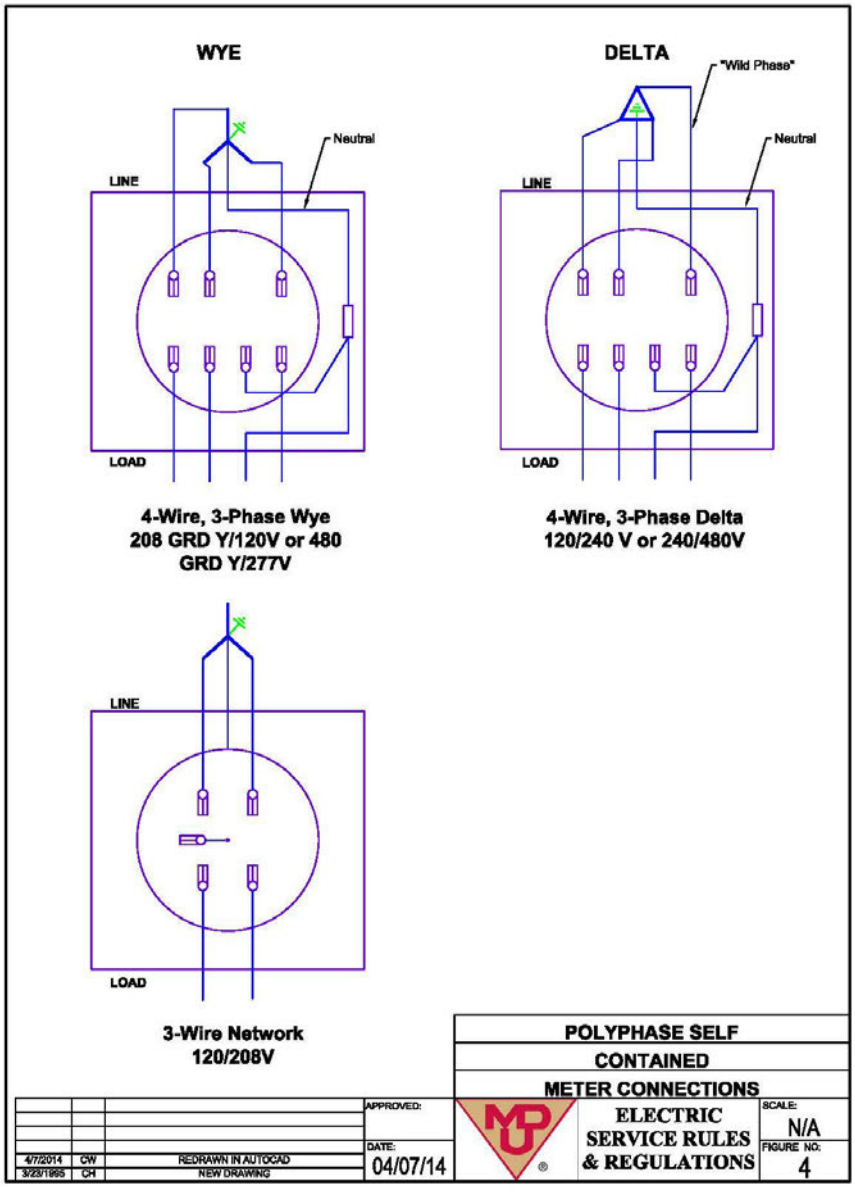
1. Meter socket shall not be mounted directly on the padmount transformer.
2. 1" PVC shall be used from meter socket to padmount transformer.
3. Customer shall furnish and install the meter socket or sockets and the 1" PVC conduit. 1" conduit shall be installed to meet wiring codes. Conduit should always be run into the secondary compartment of the padmount transformer, never into the primary compartment.

			APPROVED: Pending	TRANSFORMER RATED METERING PADMOUNT TRANSFORMER	SCALE: N/A
			DATE: 04/07/14	ELECTRIC SERVICE RULES & REGULATIONS	FIGURE NO: 2
4/7/2014	CW	REDRAWN IN AUTOCAD			
1/31/2003	CH	NEW DRAWING			

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110



ELECTRIC SERVICE RULES AND REGULATIONS Rate 110



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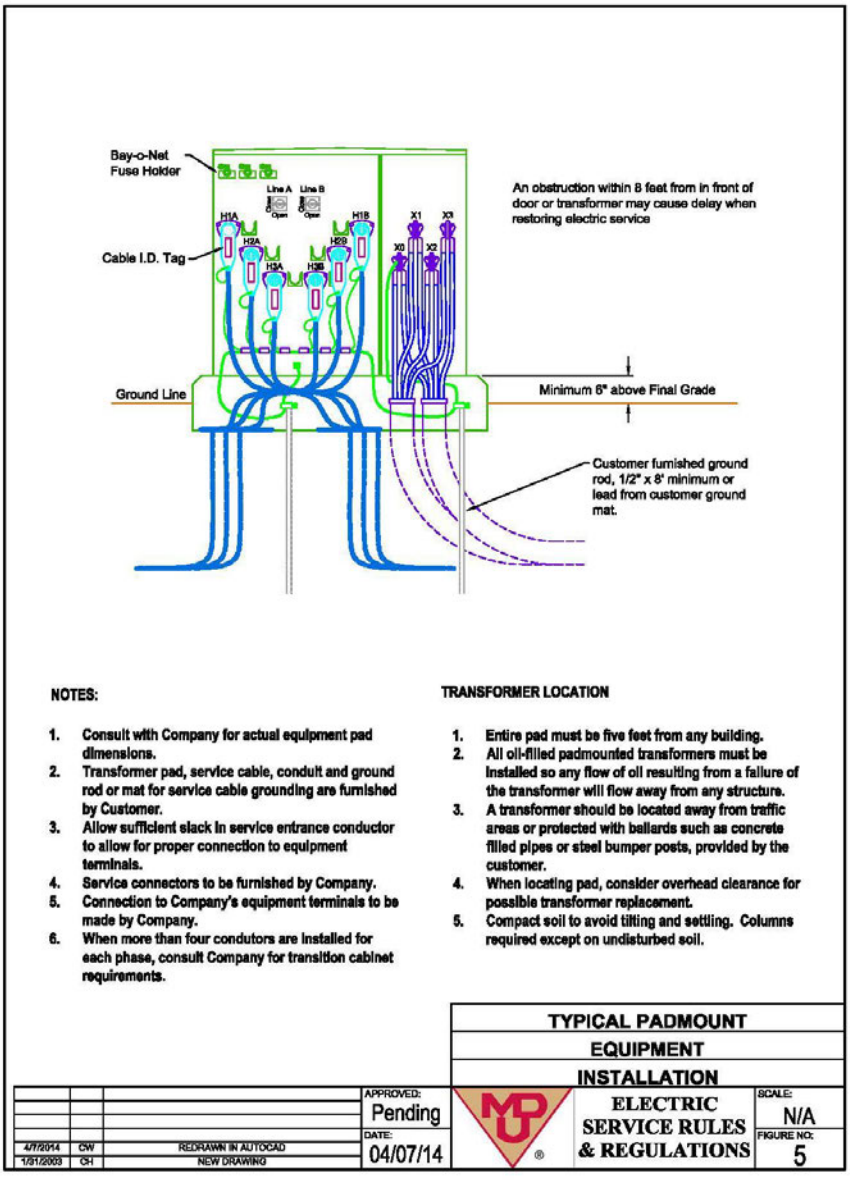

NOTES:

1. Consult with Company for actual equipment pad dimensions.
2. Transformer pad, service cable, conduit and ground rod or mat for service cable grounding are furnished by Customer.
3. Allow sufficient slack in service entrance conductor to allow for proper connection to equipment terminals.
4. Service connectors to be furnished by Company.
5. Connection to Company's equipment terminals to be made by Company.
6. When more than four conductors are installed for each phase, consult Company for transition cabinet requirements.

TRANSFORMER LOCATION

1. Entire pad must be five feet from any building.
2. All oil-filled padmounted transformers must be installed so any flow of oil resulting from a failure of the transformer will flow away from any structure.
3. A transformer should be located away from traffic areas or protected with bollards such as concrete filled pipes or steel bumper posts, provided by the customer.
4. When locating pad, consider overhead clearance for possible transformer replacement.
5. Compact soil to avoid tilting and settling. Columns required except on undisturbed soil.

TYPICAL PADMOUNT EQUIPMENT INSTALLATION

4/7/2014	CW	REDRAWN IN AUTOCAD	
1/31/2003	CH	NEW DRAWING	

APPROVED: Pending
DATE: 04/07/14

ELECTRIC SERVICE RULES & REGULATIONS

SCALE: N/A
FIGURE NO: 5

ELECTRIC SERVICE RULES AND REGULATIONS Rate 110