CONSTRUCTION HANDBOOK

New Construction Services & Engineering

Montrose Headquarters
11925 6300 Road / P.O. Box 910
Montrose, CO 81401 / 81402
1-877-OUR-DMEA, 1-877-687-3632

24 Hour Emergency Service - 1-877-OUR-DMEA, 1-877-687-3632

www.dmea.com
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GENERAL INFORMATION

Application for Service
All applications for service from Delta-Montrose Electric Association (DMEA) shall be in accordance with its Extension Policy and Electric Service Regulations. In all circumstances the applicant shall be the fee owner of the property to be serviced by the extension.

By DMEA policy, all electric facilities on the member side of the DMEA meter (Point of Delivery) is constructed by, owned by and the responsibility of the member. Installation of all facilities on the DMEA side of the meter, including the transformer, are designed and installed by DMEA and becomes the property of DMEA unless otherwise noted. It is the responsibility of DMEA to operate and maintain all assets on its side of the meter.

The first step in starting new construction with Delta-Montrose Electric Association (DMEA) is to sign an “Application for New Service” and submit an advance. This advance will go towards expenses such as those incurred as part of the design process, and will be applied towards the final cost of the job. The application for new service will place the applicant’s/member’s request for service into the New Construction Schedule and will also be used to establish a billing account for the new service.

Design and Construction Cost
DMEA will handle requests for new construction services in the order the requests are received, but will also consider applicant’s/member’s circumstances and needs when establishing its design and construction schedules. Once the job progresses to the top of the schedule, a System Designer will contact the applicant/member for an onsite appointment. During this appointment the System Designer will go over a check-off list, proposed line routes, equipment locations, permits, right-of-way easements and estimated costs.

Typical DMEA specification drawing details and Colorado State Electrical Inspection information are available on pages 9-18. When complete project information is obtained and required documents are completed, the System Designer will design the job and determine the final cost estimate. All costs shall be determined by DMEA’s current construction costs, and will include all costs necessary for the extension of facilities including design expenses, right-of-way investigation, and any necessary licenses and permits. Any changes to the design or additional trips to the site may result in additional expense to the applicant/member.

Once payment is received, the cost of construction will be good for 12 months. Once payment is received, DMEA reserves the right to update the cost of construction if the work has not been completed within 12 months, and/or cancel the job and refund the unused portion.

Scheduling and Site Readiness
Once the job has been designed and paid for, the job will be forwarded to the Line Crew Foreman or Serviceman. At that time the Foreman or Serviceman will be in charge of scheduling the job. DMEA assumes no liability for unforeseen factors that delay the project completion date.
DMEA will design, construct, own, operate, and maintain all facilities, including meters on DMEA’s side of the point of attachment for all classes of service.

Please note that temporary power is allowed for no more than 12 months while construction is being completed. DMEA reserves the right to disconnect services that have not transitioned from temporary to permanent after the 12-month period has expired.

Before New Service Can Be Energized
The Colorado State Electrical Inspector must inspect and approve the member’s meter base before it can be connected for service by DMEA (refer to Colorado State Electrical Inspections on page 12):

The member-furnished trench must be provided in accordance with DMEA’s trench specifications (see Underground Service Installations section). In no circumstance will DMEA be responsible for costs associated with trenches including dirt or rock work.

Extra Trip Fee
DMEA reserves the right to assess a flat charge to any member causing a construction delay for DMEA construction crews. A construction delay is any trip to the job site made by a construction crew where the scheduled work could not be completed by the construction crew because conditions at the site were different than what was represented by the member when the appointment was scheduled by the member. A minimum charge of $100 per occurrence may be assessed.

CALL BEFORE YOU DIG - 811
For all underground utility line locates contact the Utility Notification Center of Colorado (UNCC) by dialing 811 at least three business days prior to starting excavation.

DMEA or DMEA sub-contractors will not be responsible for damage to underground facilities that are member-owned and have not been accurately located; including, but not limited to septic tank(s), sewer line(s), irrigation pipe(s), sprinkler(s), leach field(s) or any other facilities.

Right-of-Way Easements and Access
If an easement is required for the construction of new power lines, it will need to be obtained prior to installation of the requested service. In the event DMEA has to cross property other than that of the member requesting the service, the requesting member is responsible for obtaining all private easements needed. A platted and dedicated front lot easement will be provided for utilities in all subdivisions. If the power line is along a county road, DMEA will have an easement of 15 feet. All other easements will be 25 feet (12.5 feet from the center of the installed utility line).
Plant Investment Fee
A Plant Investment Fee of $1.50 per amp will be added to the cost of any new or upgraded residential or commercial service to fund general improvements to DMEA’s electric system.

- Residential facilities requiring a 200 amp service will have a fee of $300, while a 400 amp service will have a fee of $600.
- Commercial facilities requiring a 600 amp three-phase service will pay a fee of $2,700 ($600 amps x 3 phases = 1,800 amps) x $1.50 per amp = $2,700).

Special Considerations for Motor Loads
- Motor loads with variable frequency drives may require: upgrading transformer size (pole class may have to increase), decreasing transformer impedance, increasing service wire size, decreasing service wire length and/or harmonic filters to reduce Total Harmonic Current Distortion at the member’s meter (per IEEE Standard 519). These changes will be at the member’s expense.

- **DMEA strongly recommends electrical protection on three-phase motors.** This protection should include: loss-of-phase, reverse phasing and low-voltage protection (including low-voltage protection for single-phase motors). **DMEA will not assume responsibility for damages related to a member’s lack of protection.**

- Motor loads should be compensated for their reactive power usage by installation of shunt capacitors.
- New installed motors or any other load shall cause less than 3% voltage flicker (per IEEE Standard 141) at the member’s meter.
- Installation and/or operation of **single-phase motors greater than 10 HP** are not allowed without written approval by DMEA.
- Installation and/or operation of **three-phase motors greater than 30 HP** are not allowed without installation of an appropriate technique of limiting the motor starting current to be approved in writing by DMEA.

Load Balance
- New **single-phase loads in excess of 100 kVA** will only be allowed with written approval by DMEA; lower limits may apply in certain areas.
- Member’s load shall be arranged:
  - Balanced, between the 120-volt legs, with one leg not exceeding 60% of the connected load.
  - Between the three phases on a three-phase service to not exceed 10% unbalance (Percent Unbalance = maximum phase current deviation from the average current times 100 divided by the average of the three phase currents).
- Members accepting three-phase service from an open-wye, open-delta transformer bank shall sign a liability waiver form indicating the member’s acceptance of potential hazards due to voltage unbalance.
Short Circuit Current, Fault Current and Arc Flash

- For purposes in this Construction Handbook, short circuit current and fault current are synonymous. DMEA will provide infinite-bus short circuit current based on the service transformer nameplate data upon request. However, the member is responsible to size and maintain member-owned equipment able to accommodate the actual short circuit current at its location. This means a larger capacity or a lower impedance transformer capable of higher short circuit current may be installed in the future requiring member installation of a current-limiting fuse(s), or member replacement of member-owned equipment with higher short circuit current ratings.
- Due to the possibility of electric shock and/or arc flash, DMEA strongly recommends when members are performing maintenance work on or near exposed electrical equipment that their electric system be de-energized, or be worked on by a qualified licensed electrician using appropriate personal protective equipment.

**ELECTRICAL SAFETY CODE CLEARANCES**

The National Electrical Safety Code (NESC) is used for the design, construction, maintenance, and operation of electric transmission and distribution system. DMEA reserves the right to terminate service without prior notice when a hazardous condition exists. **A specified clearance will be maintained over state highways, all streets, county roads, driveways and residential properties. The National Electric Safety Code, Colorado DOT (Department of Transportation) or the authority having jurisdiction regulates the clearance heights.**

To comply with National Electrical Safety Code requirements, easement and right-of-way (ROW) finished grades cannot be changed more than six inches by excavation or filling without prior approval of all utility companies located within the ROW. Buildings or other permanent structures shall not be constructed within utility easements. **If the member does build within a utility easement, the line will be moved at the member’s expense.** Landscaping within an easement is permissible, but shall not violate DMEA’s Tree Trimming Policy (see Tree Trimming policy).
Clearances of Secondary Wires, Conductors and Cables

Minimum heights determined by NESC

- Over decks
- For residential driveways with no truck access
- For commercial driveways, parking lots and alleys accessible to truck traffic

Insulated triplex, quad, or duplex service

- 10’
- 12.0’
- 16.0’
VEGETATION MANAGEMENT

Trees are a major contributor to electric service interruptions nationwide. Trees cause outages in two ways: mechanical and electrical. Mechanical damage refers to entire trees or portions of trees falling and physically damaging facilities (knocking down wires, poles, etc.). Because trees can be conductive, electrical outages can also occur. These interruptions are caused when a portion of a tree becomes a short circuit path for electricity to flow, causing a protective device to operate and stop the flow of electricity. Vegetation must therefore be maintained an adequate distance from the conductors in an attempt to prevent interruptions of electric service.

Factors to consider in determining the extent of vegetation management required include, but are not limited to: line voltage class, species growth rates and failure characteristics, right-of-way limitations, the vegetation’s location in relation to the conductors, the potential combined movement of vegetation and conductors during routine winds, sagging of conductors due to elevated temperatures or icing, and the probability to reach energized lines within a five-year growth cycle.

Vegetation management is a data-driven, progressive system of information gathering utilized to best plan and complete work. It involves the use of various types of vegetation management treatments including removing, pruning and mowing of vegetation. Emphasis shall be placed on removing trees, in or out of the right-of-way, whenever possible.

DMEA Vegetation Management Guidelines to consider prior to construction and landscaping:

- Trees, shrubs or bushes shall not be planted directly above underground utility lines. Before digging to plant anything, it is the member’s responsibility to call 811 to locate the underground utility lines.
- All trees, shrubs or bushes must remain at least five feet on either side of locates and flags designating underground utility lines.
- The member assumes responsibility for all trees, shrubs or bushes that are planted in the utility easement. In the event that DMEA has to excavate any utilities in the easement or maintain any equipment, DMEA will not replace or be responsible for any trees, shrubs or bushes that need to be removed.
- Trees, shrubs or bushes that can grow taller than 15 feet, at maturity, shall not be planted under or near overhead utility lines.
- **No tree, part of a tree, or shrub should ever get within 15 feet of a utility line, therefore careful consideration, of the size of the tree at maturity, is important during planting.**
- Trees growing near DMEA distribution and transmission lines will be removed or trimmed to maintain a minimum of a five year growth cycle.
- A DMEA field representative will ensure that all tree removals and/or trimming is complete prior to constructing a job. No lines will be energized until clearances are met.
- The member always has the option of underground construction (at the member’s expense) if the necessary overhead right-of-way clearances cannot be made.

Please contact the **DMEA Utility Arborist at (970) 240-6838, or (970) 249-4572** if you have any Vegetation Management questions.
SPECIFICATIONS FOR METER INSTALLATIONS

General
DMEA will make permanent connections between the member’s electric service wiring and DMEA’s system. Unauthorized connections are not permitted. DMEA will furnish, maintain and retain ownership of all meters and instrument transformers. Terminations will only be allowed on the exterior of the facility being metered. No DMEA termination will be inside or enter the member’s facility. DMEA is not responsible for member owned facilities, such as, but not limited to meter bases, loops, and/or pannels.

Removal, relocation or performing of any work on an electric meter without DMEA’s permission is prohibited. Tampering with DMEA’s metering equipment, making an unmetered connection, or making an unauthorized reconnection to DMEA’s system is prohibited and the offending member will be subject to disconnection and/or fines.

NOTE: As of 11-1-18, re-energizing any disconnected meter located on a DMEA pole will require the member to relocate the meter/panel to a pedestal or structure located at least 4’ away from the pole. DMEA will, at no cost to the member, provide the service wire necessary to get to the meter/panel as long as it is located no further than 50’ away from the pole it was attached to. The member will be responsible for all other costs associated with moving the meter/panel to a pedestal or structure including any necessary trenching and additional wire.

Electric Meter Locations
- Meters will be located either: 1) at the lot-line, 2) on the front of the house, 3) within the front third of the front corner of the house, or 4) the street side and Always Accessible and Safe.
- If a member-owned meter base/loop (contingent upon DMEA approval) is located on a DMEA secondary pole, it will be at the member’s expense to relocate their facilities to a meter pedestal in the event the pole is damaged or needs to be replaced.
- Meters will not be located in any area considered hazardous, flammable or where reading, testing or servicing of the meter may become impractical, (i.e. behind fences, enclosures, or shrubs, under decks, around dangerous animals, or inside structures). **If meters are not accessible, they may be moved by DMEA at the member’s expense.**
- Meters will be located no less than 3’6” and no more than 5’6” above final grade.
- No steps or stairways will be permitted as access to meters.
- In no circumstance will a new meter be installed on a DMEA power pole.
- **GAS Meters will be located at least 4’ away from Electric meters.**
- Meters are owned, installed and maintained by DMEA.
- Multiple meter sockets must each be clearly marked with **permanent metal scribed tags** (at the member’s expense) to identify correct addresses. Correct meter labels and appropriate addresses shall be verified by member’s electrician before permanent meters will be installed.
DMEA will not attach its supply wires to more than one meter on a single structure, unless the meters are grouped together in such a manner that all are energized through the same transformer (Electric Service Regulations III.O).

**Self-Contained Metering Installations**

As of 5-17-17, re-energizing rewired, altered, repaired or disconnected single-phase or three-phase self-contained 480 V services require State Electrical Inspector approved installation of a UL-approved single-phase or three-phase (as appropriate) non-fuseable loadbreak disconnect switch lockable and operable by DMEA load-side of the meter (at the member’s expense).

Self-contained metering for either single-phase or three-phase is available for 240 V and below.

All new single-phase 320 Amp installations and all new three-phase 200 Amp, self-contained meter installations shall have a UL-approved non-fuseable loadbreak disconnect switch lockable and operable by DMEA installed load-side of the meter (at the member’s expense).

For single-phase self-contained metering installations, the member provides and maintains the meter socket, and DMEA provides (at the member’s expense) and maintains the meter.

For single-phase services requiring power at 120/240 having a service rating of 200 amps or less, a properly sized self-contained UL approved 4 jaw meter socket will be installed. A 120/208 single-phase self-contained network meter must be provided with a 5 terminal socket with the 5th terminal in the 6 o’clock position and a UL-listed (Landis + Gyr or Square D) **manual lever bypass switch**.

The member provides and maintains all 3-phase self-contained meter sockets including multiple meter stacks. Three-phase self-contained meter sockets with a **manual lever bypass switch** will be UL-listed (Landis + Gyr or Square D). All other sockets must receive prior approval before the metering equipment is ordered. A sample of the meter socket will be sent, including job name and number, to DMEA, attention: Equipment Tech Foreman.

Any **commercial** account that requires a self-contained meter, including network meters, must have a **manual lever bypass switch**. Self-contained meter sockets with a manual lever bypass switch will be UL-Listed (Landis + Gyr or Square D). All other sockets must receive prior approval before the metering equipment is ordered. A sample of the meter socket will be sent, including job name and number, to DMEA, attention: Equipment Tech Foreman.

For single-phase services with a capacity greater than 200 amps and including, but not exceeding 400 amps, a 400 amp (320 amp continuous rating) meter socket will be installed with a minimum service wire size of 350 MCM, a **manual lever bypass switch**, locking jaws and a disconnect or disconnects that will de-energize the entire panel. **Disconnects must be accessible to DMEA personnel**. The continuous load for these services shall not exceed 320 amps. Meter bases with a continuous rating of 400 amps or sockets for bolt-in meters are not acceptable.

In the event of a failure, the member or a licensed electrician will replace the meter socket and wire within the service mast. Inspection will be required by the State Electrical Inspector if wire
within service mast has to be replaced. DMEA will not be responsible for any code violations found outside the scope of DMEA work.

**Instrument Transformer (CT) Metering Installations**

- Three-phase services greater than 200 A or greater than 240 V phase-to-phase shall be CT-metered.
- Single-phase 120/240 V services greater than 400 A shall be CT-metered.
- DMEA provides and maintains (at the member’s expense,) all single-phase and three-phase CT-metered meters and meter sockets except for multiple meter stacks.
- CT’s will be located in a CT cabinet furnished by the member, unless otherwise approved by the DMEA Engineering Department. For CT cabinets 1200 amps or less, the customer will provide a UL-Listed bar-mounted CT cabinet. For CT cabinets more than 1200 amps (which require a switchgear cabinet) the metering will be approved by the DMEA Engineering Department.
- The point of demarcation will be the member furnished bar-mounted CT cabinet or weatherhead. The cabinet must meet minimum NEC size requirements.
- For terminations in the bar-mounted CT cabinet, the member will provide the approved connectors and terminate all wires within the box.
- DMEA will provide conduit and wire and will pull wire to the CT cabinet.
- Members will not have access to DMEA’s transformer, only DMEA will have this access. DMEA will make all connections in the transformer.
- Terminations will only be allowed on the exterior of the facility being metered. No DMEA termination will enter the member’s facility.
- CT meter sockets will not be mounted on switchgear doors or cabinets.
- UL-approved single-phase or three-phase (as appropriate) non-fuseable loadbreak disconnect switch lockable and operable by DMEA installed load-side of the metering.
- Metering equipment must be located outside the member’s facility and accessible at all times by DMEA personnel.

**Single Member or Multiple Members – CT Metering**

For single member or multiple member services, metering CT’s must be installed in a bar-mounted CT cabinet mounted on the member’s facility and furnished by the member. For CT cabinets 1200 amps or less, the member will provide a UL-listed bar-mounted CT cabinet. For CT cabinets more than 1200 amps, the CT cabinet specification will be approved by the DMEA Engineering Department. The meter will be mounted next to the CT cabinet at the member’s facility. The point of demarcation will be the member furnished bar-mounted CT cabinet or weatherhead. DMEA will supply and install all wire and conduit (at the member’s expense) to the member furnished connectors in the CT cabinet. DMEA’s System Designer will determine the number and size of wire and conduit to be installed. The service entrance knockouts in the CT cabinet is the responsibility of the member and location of the knockouts will be specified by DMEA. DMEA will terminate source-side wires to the top-side of the CT cabinet, and the member will terminate to the lower CT cabinet terminals.

**A DMEA Operations or Engineering Manager must approve any exceptions to the above in writing.**
COLORADO STATE ELECTRICAL INSPECTIONS

A service entrance (meter socket on building or, meter pedestal) is required to be inspected by the State of Colorado Electrical Inspector before final connection can be made. State law (Title 12 Article 23-116 C.R.S. 1973) states that no utility shall provide service to any person required to have electrical inspection without proof of final approval. State Inspections are required only on the member side of the meter.

The member or member’s Electrical Contractor must obtain an electrical permit from the State of Colorado prior to starting work. It is the responsibility of the member to contact the inspector when the work is ready for inspection.

The phone numbers for the State Electrical Inspector are:

**Montrose County**: 303-869-3455  
**W. Montrose County**: 303-869-3459  
**Delta County**: 303-894-2990  
**Supervisor**: 970-249-8911

Inspectors do not issue permits. Apply online with DORA:

When the work is approved, the inspector will tag the meter base with a green or yellow-lettered sticker. If the work is not satisfactory, a red sticker will be placed on the meter panel and must remain there until the work is done correctly and re-inspected. When the State Electrical Inspector has approved the electrical work, it is the member’s responsibility to contact the DMEA System Design Customer Service Representative with the permit number to schedule the work at: 970-240-1256.

Electricians needing Short Circuit Currents for Commercial Installations (per NEC 110-24) to pass State Electric Inspections, should plan on at least three business days to obtain this information from a System Designer at DMEA.

**Inactive Service Inspection**: After 6 months of a service being disconnected or de-energized, the property owner must obtain an electrical inspection by the Colorado State Electrical Inspector to verify a safe system still exists. Upon DMEA-approved evidence of inspection, DMEA will connect and energize the system.
WORKING CLEARANCES FROM ELECTRIC METER

(Refer to the State of Colorado Electrical Inspector or an electrician for more details.)

SHADED AREA DENOTES CLEAR WORKING SPACE

MIN 4' RADIUS FROM GAS EQUIPMENT TO ELECTRIC METER AND SOCKET (INCLUDES CABLES IN RISER PIPE)

MINIMUM CLEARANCE 7'
UNERGROUND SERVICE INSTALLATIONS

METER BASE ON HOUSE OR BUILDING

1. Member will provide meter base - **200 amp** or **400-amp** (manual lever bypass with disconnect required on 400 amp or commercial self-contained meter accounts).
2. Meter height 3'6" to 5'6" from center of meter.
3. Member will provide riser from bottom of meter base to 18" below final grade, and slip joint above ground.
4. Member will provide ground rod(s) per NEC.
5. Sleeve to be provided at proper depth if driveway is poured prior to service installation.
6. Trenching will be provided by the member to DMEA specifications.
7. At least 4' separation between power line and gas and/or water.
8. The state electrical inspector must approve meter base before service will be energized by DMEA.
9. Member will provide conduit straps for final attachment to building.

4" GRAY SCHEDULE 80 PVC TO BE PROVIDED IF DRIVEWAY IS ALREADY POURED.

CUSTOMER PROVIDED SLIP JOINT REQUIRED

2" GRAY SCHEDULE 80 PVC (3" FOR 400 AMP)

DMEA CONDUIT AND CONDUCTOR

(FRONT VIEW)
UNDERGROUND SERVICE INSTALLATIONS

PERMANENT METER PEDESTAL

MEMBER PROVIDED 200 AMP METER PEDESTAL

BREAKER

3'6" TO 5'6" TO FINAL GRADE

30" MIN

DMEA CONDUCTOR AND CONDUIT

MEMBER PROVIDED GROUND ROD

AT LEAST 6" OF ROCKFREE BACKFILL

NOTES:
1. Member will provide meter base/pedestal. 200 amp (400-amp breaker) is required at meter pedestal on all installations. Manual lever bypass with disconnect is required on 400 amp or commercial self-contained meter accounts.
2. Meter height 3'6" to 5'6" from center of meter.
3. Member will provide riser from bottom of meter Base to 18" below final grade, and slip joint above ground.
4. Member will provide ground rod(s) per NEC.
5. Sleeve to be provided at proper depth if driveway is poured prior to service installation.
6. Trenching will be provided by the member to DMEA specifications.
7. At least 4' separation between power line and gas and/or water.
8. The state electrical inspector must approve meter base before service will be energized by DMEA.

TEMPORARY METER PEDESTAL

Pressure treated wood post (4x4 min)

200 amp 3 wire meter socket

Outlet receptacles and breakers

Gray Schedule 80 pvc

3'6" to 5'6" max

Transformer Front/Street side

Member supplied conductor to transformer

Compacted backfill

Pressure treated wood post (4x4 min)

200 amp 3 wire meter socket

Outlet receptacles and breakers

Gray Schedule 80 pvc

3'6" to 5'6" max

Transformer Front/Street side

Member supplied conductor to transformer

Compacted backfill

NOTES:
1. Member will provide the whole temporary meter pedestal (post, meter socket, breakers, conduit, outlets, and enough wire to reach from temporary to the inside of the transformer).
2. Meter height 3'6" to 5'6" from center of meter.
3. Member will provide ground rod(s) per NEC.
4. Trenching will be provided by the member to DMEA specifications.
5. At least 4’ separation between power line and gas and/or water.
6. The state electrical inspector must approve temporary meter pedestal before service will be energized by DMEA.
7. Temporary meter pedestal will be set no less than 2’ from transformer and no more than 10’ unless pre-approved by a DMEA System Designer, Line Crew Foreman, or Serviceman.
8. 200 Amp (or 400 amp) breaker is required at meter pedestal on all installations.
UNDERGROUND SERVICE INSTALLATIONS

Trenching Specifications (Primary and Secondary)
- Conduit or secondary underground service conductor will not be installed to member’s facility until an inspected and approved meter base is in place. All conduit and conductor will be installed by DMEA.
- Member will provide a clean, rock-free trench with a 6” bedding of rock-free dirt or sand.
- Primary trenches will be 48” deep with a 6” bedding of rock-free dirt or sand. The conductor will be at least 42” below final grade.
- Secondary trenches will be 36” deep with a 6” bedding of rock-free dirt or sand. The conductor will be 30” below final grade.
- Depths specified are to finished grade.
- It is the responsibility of the member to make sure the trenches are in the allotted easements on their property.
- DMEA employees will not enter trenches that do not meet OSHA’s excavation standards, 29 CFR 1910.269. (Spoils must be a minimum of 2 feet back from the trench).
- Gas, sewer and water lines will not be included in an electrical trench. There shall be at least four feet of horizontal separation from DMEA conductor where other trenches are in the same proximity.
- When gas or water lines cross in the trench with electric lines, there must be at least one foot of vertical separation.
- Conductor will not be energized until backfill is properly completed.
- DMEA will supply marking tape to be placed 12” above conductor.

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<th>Primary Trench</th>
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**Rock-free dirt & bedding material**

**Joint Use Trench**
Members and developers requiring a joint use trench where telephone and television cable are within the electric trench are solely responsible for all coordination between the included utilities. All utilities requesting joint-use trenches must be designed and ready to be installed at the time the DMEA facilities are scheduled for construction. A minimum 1-foot separation is required between electrical and all other services that share the trench.

Although non-conductive utilities such as phone and television cables are allowed in DMEA trenches, for the safety of personnel, DMEA does not allow customer-owned installations such as control cables, wiring or 120/240 V secondary service wires. Any customer whose trench does not meet the above specifications and causes the Line Crew or Serviceman an extra trip will be subject to an additional fee.
OVERHEAD SERVICE INSTALLATIONS

OVERHEAD TEMPORARY SERVICE

NOTES:
1. Member will provide the whole temporary meter pedestal (post, meter socket, breakers, conduit, outlets, and enough wire to reach from temporary to the inside of the transformer)
2. Meter height 3'6" to 5'6" from center of meter.
3. Member will provide ground rod(s).
4. At least 4’ separation between power line and gas and/or water.
5. The state electrical inspector must inspect temporary meter pedestal before service will be energized by DMEA.
6. Post will be set a minimum of 10’ and a maximum of 15’ from transformer pole unless otherwise approved by a DMEA System Designer, Line Crew Foreman, or Serviceman.
7. NO METERS ALLOWED ON DMEA POLES

GROUND RODS PROVIDED BY MEMBER PER NEC REQUIREMENTS
OVERHEAD SERVICE INSTALLATIONS

(Refer to the State of Colorado Electrical Inspector or an electrician for more details)

PERMANENT SERVICE - MAST ON BUILDING

NOTES:
1. This application applies to a slope of 4" in 12" or greater and voltage does not exceed 300 volts.
2. Mast cannot exceed 30" in height without being guyed. Mast will be no less than 18".
3. Member will provide meter base - 200 amp or 400-amp (manual lever bypass with disconnect required on 400 amp or commercial self-contained meter accounts), conduit, mast, weatherhead, guying (if needed) and at least an 18" tale of wire outside of the weatherhead.
4. Meter height 3'6" to 5'6" from center of meter.
5. Customer will provide ground rod(s) per NEC.
6. The state electrical inspector must approve meter base before service will be energized by DMEA.
7. No coupling is allowed in the top 10' of the mast.
8. No attachments to mast other than power service drop conductors.
9. Mast and Entrance Head shall be safely and reasonably accessible by DMEA personnel and equipment at all times.
10. Any exceptions require prior approval in writing by DMEA operations and engineering supervisory personnel.
DEVELOPER POLICY

Definition of a Developer
A person or an entity who develops a piece of property into more than two lots, duly approved by the governing body of the city, county, or state; with the intent being the sale of said lots for profit.

Responsibilities of the Developer
The developer shall, in advance, provide to DMEA an accurate plat of the subdivision tract duly approved by and filed with the county, city or any other entity having jurisdiction, showing the location of lots, streets, alleys, existing buildings, existing utilities, and any other underground installations or obstructions. The Developer will provide and identify permanent right-of-way easements that are compatible with DMEA’s policies for design, installation, operation, and maintenance of the system including the necessary access to and from the development. DMEA requires front lot line easements for underground electric facilities. The Developer will provide DMEA with all pertinent load data to be used in design. It is also the responsibility of the developer to make sure the trenches for the primary wire are in the easements. The Developer will provide permanent final grade and property corner pins prior to the installation of underground facilities.

In order to maintain acceptable voltages and reliability, developments larger than, or with future additions will be larger than five lots will be designed with an appropriate number of phase conductors to be installed within the new development to enable balancing the feeder load. Also, the primary electrical system will be designed with the ability to feed each lot with an alternate phase or feeder connection to DMEA’s primary system. Exceptions to these design standards will require written approval by DMEA’s Engineering and Operations Managers.

Process for submitting electronic plats for developments and subdivisions
DMEA requires all developers to submit to DMEA the latest and most updated (Approved Preliminary Plat) electronic version of their development before a DMEA System Designer can meet with persons involved in planning the backbone for that development. This information will be used to post the development to DMEA’s mapping system and for use in laying out the electric backbone for that development.

There are several ways a developer can get the requested electronic plat to DMEA. All versions of the plat should be in an AutoCAD (.dwg) format. The developer can also upload the .dwg document on a USB memory stick (jump or thumb drive) and bring it to DMEA to download the information. The developer can also send an e-mail with the attached .dwg to: gisteam@dmea.com

Please inform DMEA in the manner listed above if anything in the development changes. If there is a re-plat of a subdivision, be aware that you may incur additional fees from DMEA to redesign the job, and any other costs associated with the new design.
DMEA is “Your Rural Electric CO-OP”

Board of Directors
DMEA is a private, non-profit rural electric cooperative owned and controlled by the members it serves. Individuals become members when they apply for and receive electric service. Cooperative members have an ownership interest in the cooperative through their dollar investment. At present there are seven districts and two at-large regions identified within DMEA’s service territory, each with a board member representative. These nine directors set the policies and direction for DMEA. For more information about the Board of Directors, contact DMEA at 1-877-OUR-DMEA, (1-877-687-3632) or visit www.dmea.com.

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Notes:

Call Before You Dig – 811
Customer Construction Check-Off List

Name: ____________________________ Address: ____________________________

☐ Application for Service (pg 3) HVAC ☐ Electric ☐ GEO ☐ Propane ☐ Gas
☐ New Construction Handbook Square Footage: ____________________________
☐ Proof of Ownership/Warranty Deed Waterheater: ☐ Gas ☐ Electric (Rebate - Lifetime Warranty)

Voltage: ☐ 120/240 ☐ 240/480 ☐ 277/480
Phasing: ☐ Single ☐ Three Phase
Rate: ☐ Residential ☐ Small Commercial ☐ Large Commercial

☑ Temporary customer provided ☐ Underground (pg 15) ☐ Overhead (pg 17) Permanent
☐ DMEA installs ☐ Underground ☐ Overhead

Procedure for Scheduling (pg 9):
Electrician: ____________________________ Contractor: ____________________________
Access: Installation / Meter Location

Meterbase Requirements:
☐ 200 Amp (pg 15) ☐ 400 Amp - bypass with disconnect required (pg 15)
☐ Meter in Pedestal (pg 15) ☐ Customer to supply meter panel (200 Amp. Minimum) (pg 10)
☐ Meter on Building (pg 14) ☐ Customer's responsibility beyond the meter (pg 3) ☐ All 480V Services shall be Bus
☐ Slip Joint required (pg 14) ☐ Meter Height (3'/6" - 5'/6") to center of meter) (pg 15) ☐ Bar CT Rated (pg 11)

☐ Outside Switchgear (pg 11) ☐ Bus Bar CT Cabinet -Customer furnished (pg 11) ☐ Other
☐ Outside Switchgear must be furnished by the customer and preapproved by DMEA (pg 11)

Special Considerations for Motor Loads:
- Motor loads with variable frequency drives must be compliant with the latest revision of IEEE 519.
- DMEA strongly recommends electrical protection on three-phase motors. This protection should include loss-of-phase, reverse phasing and low voltage protection (including single-phase motors). DMEA will not assume responsibility for damages related to a customer's lack of protection.
- Motor loads should be compensated for their reactive power usage by installation of shunt capacitors.
- New installed motors or any other load shall cause less than 3% voltage flicker per (IEEE Standard 141) at the customer's meter.

Inspection by the State Electrical Inspector: Montrose County - 855-454-0065 Delta County - 855-454-0068

Right-of-Way Easements and Other Permits
Do Not Dig Trench Prior to Scheduling with:
☐ Line Foreman ☐ Serviceman
Trench Specification / Spoils Placement / Finished Grade (pg 16) ☐ 30" Trench for Secondary Service ☐ 42" Primary
Line Locates: UNCC - dial 811 ☐ Additional conduit for Fiber ____________________________

Road & Driveway Crossings:
☐ 4" Minimum Gray Schedule 40 PVC Quantity: ____________

Vegetation Management:
☐ Brush Removal ☐ Access ☐ Installation (pg 8)

Plant Investment Fee (pg 5):

Extra Trip Fee - $100 (min.) (pg 4)

I hereby acknowledge that the above information has been reviewed with me by a DMEA Representative. I agree to ALL of the above specified details required. Both DMEA and I will have copies of this List.

Printed Name: ____________________________ Date: ____________________________
Electrician/General Contractor: ____________________________ Date: ____________________________
Customer Signature: ____________________________ Date: ____________________________
DMEA System Designer: ____________________________ Date: ____________________________

For more information visit www.dmea.com

Issued 09/95 Revised 07/18
EN 005
Commercial Load Data Form
(Anything other than Residential)

Date: __________

Applicant Name: __________________________ Phone Number: __________________________

Service Address: __________________________

Electrician/Engineer: __________________________ Phone Number: __________________________

REQUESTED ELECTRICAL SERVICE: __________________________

BATTLE TYPE: __________________________

PRIMARY
- Overhead
- Underground

SECONDARY
- Overhead
- Underground

SECONDARY VOLTAGE
- 120/240 1Ø3 Wire
- 120/208 3Ø4 Wire Wye
- 277/480 3 Ø 4 Wire Wye

MAIN DISCONNECT (AMPERES)
- New
- Existing (if any)

SECONDARY SERVICE ENTRANCE CONDUIT
Size: __________ in. Quantity: __________

SECONDARY SERVICE ENTRANCE CONDUCTORS
Size: __________ Quantity: __________ per phase

BUILDING SIZE
- __________ sq. ft.

HEAT and AIR CONDITIONING
- Electric Heat (total): __________ (kW)
- A/C (total nameplate): __________ (amps) __________ (volts)
- Geothermal (motor size): __________ Quantity: __________ (FLA – Full Load Amps)
- __________ (LRA- Locked Rotor Amps)

MOTORS (Other than Air Conditioning)
(10) hp & larger motors may require 3Ø and reduce starting current device. Please contact DMEA Engineering
Department for further information.

1Ø Motor(s)
- __________ hp Quantity: __________
- __________ hp Quantity: __________
- __________ hp Quantity: __________

3Ø Motor(s)
- __________ hp Quantity: __________
- __________ hp Quantity: __________

TOTAL LIGHTING LOAD
- __________ (kW)

ELECTRIC VEHICLE CHARGER
- __________ (kW) __________ (volts)

COMMENTS/MISCELLANEOUS:

AUTHORIZED SIGNATURE: __________________________ DATE: __________

PRINT NAME: __________________________

For office use only

Work Order# __________ Account#: __________________________

Staking Tech: __________________________ TRUE kVA: __________ Number of Meters Served: __________