Baltimore Gas and Electric
Gas & Electric Metering Manual
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TO: Holders of the BGE Gas & Electric Metering Manual

FROM: Smart Metering & Technology Unit

SUBJECT: Manual Revisions – 6.0

DATE: May 2019

Revisions have been made to the BGE Gas & Electric Metering Manual and are noted in the Revision History. Due to formatting changes, it is recommended that you re-print these sections. Please update your manual with the revised pages detailed below.

**Please note: to allow for easier web navigation, bookmarks have been added to the pdf file.**

If you have any questions concerning these revisions, please refer to the Foreword Section for contact information.
The following table details revisions made to this manual.

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1.0</td>
<td>April 2003</td>
<td>Initial Release of Gas and Electric Metering Manual</td>
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<td>1.01</td>
<td>May 14, 2003</td>
<td>Revised drawing in Section 502 (3-phase, 4-wire Wye, 120/208V Service) to show 120V from B phase to neutral.</td>
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<td>Removed 803 chapter title from page 800-11, section 802-6</td>
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<td>Removed &quot;Appliance Repair&quot; from tables 106-1 and 701-5</td>
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<td>1.1</td>
<td>Sept 2003</td>
<td>Revised Table of Contents</td>
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<td>Revised COMAR definition to include &quot;electric&quot;</td>
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<td>Revised text in 206</td>
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<td>Revised dimensions in drawing for 211</td>
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<td>Revised text in drawing 213</td>
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<td>Revised text in 220, 221, 222, 224, 225, 226, 227, and 311</td>
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<td>Revised text and drawing in 312</td>
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<td>Revised drawing for 314</td>
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<td>Revised text in 321, 402, 406, 407, and 413</td>
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<td>Added drawing in 502 (120/240/240V 4-Wire Delta)</td>
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<td>Revised “Fixed Factor Billing” column in table 702-2</td>
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<td>Revised text in 705-8 and 706-4</td>
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<td>Updated &quot;Meters-General Rules&quot; in section 706-4</td>
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<td>Revised service pressure in drawings 802-1, 803-1, 803-5, 804-10, 804-11, 805-5, and 805-6</td>
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<td>2.0</td>
<td>Oct 2004</td>
<td>Revised Foreword, Table of Contents and Definitions</td>
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<td>Sections 100, 200, 300 and 400 – All references to 66” minimum clearance from meter to driveway were changed to 36” minimum.</td>
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<td>Added text in 105-2</td>
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<td>Revised text change in drawing in 201-5D</td>
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<td>Revised contents of 203: added 203-1, 203-2 and 203-3</td>
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<td>Added 328 – Existing Town House Installations</td>
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<td></td>
<td>Added Section 603-4 Separated (Meter) Installation</td>
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<td>Added Section 610 Metering Configuration for Town Houses (Only)</td>
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<tr>
<td>2.0</td>
<td>Oct 2004</td>
<td>Added Section 620 Typical Town House Indoor Meter Drawings&lt;br&gt;Renumber Section 607-1 to 690-1 Improper Installation&lt;br&gt;Section 700 Renamed from Industrial &amp; Commercial to Commercial &amp; Industrial&lt;br&gt;Removed Table 702-1, same information in Table 702-2&lt;br&gt;Revised Table 702-2 to show new MP specifications&lt;br&gt;Revised text from 27.7” to 22.7” and changed wording from &quot;guarantee&quot; to &quot;minimum&quot; in section 702-2&lt;br&gt;Added Table 702-3&lt;br&gt;Section 703-6 corrected Tariff section from 4.1 to 6.1&lt;br&gt;Updated Sections 704-1 &amp; 704-2&lt;br&gt;Added Town House Meter Location exception in Section 705-1&lt;br&gt;Added “Notes” to Section 705-1&lt;br&gt;Rewrote Service and Vent wall opens in Section 705-3&lt;br&gt;Added 3 Foot Meter Protection requirement in Section 705-4&lt;br&gt;Added removable bollards in Section 705-4&lt;br&gt;Rewrote AMR Policy in Section 705-5&lt;br&gt;Combined Service Renewals into Section 705-7&lt;br&gt;Rewrote Meter Locations and Sources of Ignitions in Section 705-8&lt;br&gt;Added text for gas vents in flood plane areas on section 705-8&lt;br&gt;Added Section 706-2 Underground Piping After the Meter - Residential&lt;br&gt;Renumber Sections 706-3, 4 and 5&lt;br&gt;Added Section 706-6 BGE Procedure for Re-Connection of Existing Gas Service Installation (Relocations &amp; Meter Increases)&lt;br&gt;Removed Section 780 Residential High Rise Distribution Application</td>
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<td>2.1</td>
<td>August 2005</td>
<td>Added website information to the Foreword&lt;br&gt;Updated Table of Contents&lt;br&gt;Updated gas design standards in the Scope&lt;br&gt;Corrected the meter mounting height reference to “final grade to centerline of meter” and updated the reference sections on page 100-7.&lt;br&gt;Added text to define a high-rise building and the text “every other floor” in section 105-3.&lt;br&gt;Updated the map to show George Spitzler’s contact information and coverage area in Section 106-2.&lt;br&gt;Defined how to install thru-wall conduit connected from the LB fitting and the conduit from the splice box to LB fitting in Section 203-1.&lt;br&gt;Defined customer responsibility for line conductors over 12” in Sections 215, 216, 217, 218, 226, 318, 319 and 320.&lt;br&gt;Underlined Item (6) in Section 219.&lt;br&gt;Added text box “For Outdoor Use Only” on the drawing in Section 227.&lt;br&gt;Revised service loop height clearances in Section 303.&lt;br&gt;Added an illustration of an equivalent pipe support in Section 307.&lt;br&gt;Updated the list of manufacturers in Sections 401, 403, 404 and 405.&lt;br&gt;Created Section 414 for “Approved Indoor Service Termination Cabinet 3Ø, 4W 1600-3000 Amps”.&lt;br&gt;Created Section 415 for “Approved Indoor Service Termination Cabinet 3Ø, 4W Above 3000 Amps”.&lt;br&gt;Corrected text in Section 408-2.</td>
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<td>2.1</td>
<td>August 2005</td>
<td>Added suggested footer in Section 606-1</td>
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<td>Defined how to install thru-wall conduit connected from the LB fitting and the conduit from the splice box to LB fitting in Section 620-6.</td>
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<td>Remove 1 PSIG delivery option from MP system, Updated the ½ PSIG delivery from 1,000 to 23,000 cfh in Section 702-2</td>
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<td>Updated minimum line pressure delivery to 1.46 psig in Section 702-2</td>
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<td>Updated BGE’s “Standard Designs” installation to 23,000 cfh for standard delivery and 25,875 cfh for 2 PSIG delivery in Section 702-2</td>
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<td>Updated system allowable pressure drop in Section 702-3</td>
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<td>Updated customer “Scratch-and-Sniff” card in Section 703-5</td>
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<td>Added suggested footer in Section 705-4</td>
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<td>Updated to match internal BGE policies in Section 705-8</td>
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<td>Added new Section 706-2 of “Added or Converted Equipment” from other fuel sources and renumbered the following Sections</td>
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<td>Added C&amp;R customer responsibility for underground piping after the meter in Section 706-3</td>
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<td>Updated meter assembly insulation requirement in all of Section 800</td>
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<td>Updated increase meter assembly dimensions and drawings due to ERT module in all of Section 800</td>
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<td>Removed “Ten Pound” information from Section 800</td>
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<td>Consolidated drawings and delivery information in Sections 800-3 &amp; -4</td>
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<td>Updated meter assembly insulation requirement in all of Section 900</td>
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<td>Removed “Ten Pound” information from Section 900</td>
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<td>Added 23M232 Meter Assembly Details</td>
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<td>Created “How to Read Your Meter” to Section 1000-1</td>
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<td>Created “Pressure Factor Chart” to Section 1000-3</td>
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<td>Created “Clocking a Meter” to Section 1000-4</td>
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<td>2.2</td>
<td>October 2006</td>
<td>Revised text and rearrange the terms alphabetically in DEFINITIONS.</td>
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<td>Added an excerpt from BGE Electric Service Tariff that defines “Supply Points” to Section 102-1 and renumbered the whole section</td>
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<td>Revised “Building/Hazards Clearances” drawing to show 36” distance to driveway and added “Deck Installation Clearances” to Section 105-2</td>
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<td>Revised drawing in Section 202 and 302 to define meter clearance requirements if close to driveway</td>
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<td>Added text reference about Section 600 and splice box mech number (for BGE reference) in Section 203</td>
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<td>Modified drawing to define use of service trough for line conductors in Sections 215, 216 and 218</td>
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<td>Specified customer’s responsibility for line conductors inside trough in Sections 215, 216, 217, 218, 226, 313, 213 and 320</td>
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<td>Created Section 228 “Cellular Site Installation Current Transformer (CT) Rated Meter”</td>
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<td>Created Section 229 “Cellular Site Installation Self-Contained Meters and/or CT-Rated Meter”</td>
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<td>Created Section 230 “Cellular Site Installation Meter Stack and/or CT-Rated Meter”</td>
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<td>Added Note “(N3)” concerning eaves dimension and removed table “Service Drop Size According to Service Ampacity” in Section 307</td>
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<td>Added Meter Socket Box dimensions in Sections 309, 310, 311 and 312</td>
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<td>2.2</td>
<td>October 2006</td>
<td>Updated model number for pedestal box in Section 401&lt;br&gt;Updated stud kit catalog number in Section 402&lt;br&gt;Revised the dimensions format of the cabinet and updated the list of manufacturers in Sections 403, 404, 405&lt;br&gt;Changed the Title of Section 406 to “Approved Service Entrance Compartment” and added the list of manufacturers and drawing numbers&lt;br&gt;Edited text and updated table in Section 410&lt;br&gt;Correct the height to be 6’-3” or 75” instead of 73” in Section 610-3 &amp; 610-4&lt;br&gt;Updated C&amp;I contacts in Section 701-4&lt;br&gt;Removed 10# gas system indication in Section 704-2&lt;br&gt;Updated reference to the National Fuel Gas Code in all of Section 700&lt;br&gt;Updated “Curtailment of Supply” information in Section 702-4&lt;br&gt;Updated “New Gas Service” tag in Section 706-5&lt;br&gt;Added BGE Reference Numbers to specific drawings in Section 800&lt;br&gt;Updated 3M and 5M C&amp;I Meter Set drawings in Section 900</td>
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<td>2.3</td>
<td>March 2007</td>
<td>Updated Foreword&lt;br&gt;Updated Table of Contents&lt;br&gt;Added information re: Metering in a Flex Space Building in Section 503&lt;br&gt;Added information re: Portable Generators and Transfer Switches in Section 504&lt;br&gt;Updated MM701-4 to match new service territory representatives&lt;br&gt;Updated MM704-1 building requirements to meet International Building Code and Local Code requirements&lt;br&gt;Added outlet piping size chart to MM900-1&lt;br&gt;Added outlet piping dimensions to C&amp;I Meter Set drawings in Sec 901 through 904&lt;br&gt;Added MM905-3 C&amp;I Meter Set drawing to show requirements for metering in a Flex Space Building</td>
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<td>2.4</td>
<td>March 2009</td>
<td>Edited Forward contact information electric metering and first paragraph&lt;br&gt;Edited format and revised text in Section 102-I-B&lt;br&gt;Edited 103-3 to reflect current tariff language&lt;br&gt;Added maximum secondary fault current to Section 103-6&lt;br&gt;Updated reference in Section 104-9&lt;br&gt;Updated 106-2 contact information&lt;br&gt;Revised 201-4 and 201-5 to show current requirements&lt;br&gt;Edited Section 204 drawing&lt;br&gt;Added Section 205 Single Outdoor Meter with Utility Disconnect&lt;br&gt;Changed maximum voltage and added note to Section 211&lt;br&gt;Edited Section 215-218, 220-222, and 224-226&lt;br&gt;Revised 228 and 229 to reflect new rules regarding cellular tower metering. Deleted 230.&lt;br&gt;Edited Section 301-2 to include decks&lt;br&gt;Revised Section 303 moved H under B and deleted letter H&lt;br&gt;Revised 303 to reflect current standards in OH Construction Standards&lt;br&gt;Revised Section 307 table for &gt; 48in, included note, added Note (N4)&lt;br&gt;Added Section 310-2 Single Outdoor Meter With Utility Disconnect</td>
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<td>March 2009</td>
<td>Added dual and single meter table to Section 401</td>
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<td>Edited format in Section 402-1, added line item and Note (2)</td>
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<td>Added Section 402-2 Approved Modular Metering Equipment Various Services (400 Amp / 320 Amp Continuous)</td>
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<td>Added S.A.R phone number to Sections 403 – 405 and 415 – 416</td>
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<td>Added Section 416 Service Entrance Trough Requirements</td>
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<td>Updated reference to the National Electric Safety Code in all of Section 600</td>
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<td>Edited 620-2 drawing with current style regulator</td>
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<td>Edited 620-3 drawing with current style regulator</td>
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<td>Edited 620-7 drawing with current style regulator</td>
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<td>Updated BGE Gas Service Tariff throughout Section 700</td>
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<td>Updated reference to the National Fuel Gas Code in all of Section 700</td>
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<td>Update 701-1 Customer Care Center name</td>
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<td>Updated 701-4 Contact information</td>
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<td>Revised COMAR reference in 703-4</td>
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<td>Updated 703-5 with latest Scratch and Sniff mailer</td>
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<td>Updated Gas Turn on Procedure in Section 703-10 from National Fuel Gas Code 2009 Edition</td>
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<td>Updated 704-1 to keep definition of “building” the same as the IBC</td>
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<td>Updated 704-2 reference to National Electric Safety Code</td>
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<td>Updated 705-3 unit name</td>
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<td>Revised 705-6 with expanded explanation of Bonding policy</td>
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<td>Revised 705-8 Reg/Relief vents and clearance</td>
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<td>Edit 706-2 to make bold</td>
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<td>Added re-light general practice to 706-7</td>
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<td>Revised 800 &amp; 900 to reflect typical service height above grade</td>
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<td>Edit 800-1 grammar</td>
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<td>Changed 750 Meter to 800 Meter in all of Section 800</td>
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<td>Edited drawing to reflect change from ½” CTS service to ¾” IPS in Section 800</td>
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<td>Added pad thickness to all of Section 900</td>
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<td>Added “(MP)” to keep descriptions standard in Section 900</td>
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<td>Edited 902-3 to utilize the 40D49 pre-fab with Fisher 133 regulation</td>
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<td>Added 902-7 7M line pressure assembly</td>
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<td>Added 902-7 11M line pressure assembly</td>
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<td>Added 902-7 16M/23M232 line pressure assembly</td>
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<td>December 2009</td>
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<td>2.4.2</td>
<td>November 2010</td>
<td>Added section 104-10 Pulse Metering</td>
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<td>2.4.2</td>
<td>November 2010</td>
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<td>Revised contact information on Meter Inspection Districts map</td>
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<td>Revised drawing and text for compliance in Section 303</td>
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<td>Revised drawing and text for compliance in Section 307</td>
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<td>Updated contact info page 100-17, Renumbered sections MM100</td>
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<td>Updated drawings for meter box dimensions sections MM200, 300 &amp; 600</td>
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<td>Added approved pedestal page 400-1, Added model # to table 401, Added note #5 to table 402-1, Moved sections 411, 412 to MM100 section 106</td>
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<td>BGE New Business address updated in section MM100</td>
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<td>December 2014</td>
<td>Updated page 700-21 to include deck exception for build-overs of existing gas services</td>
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<td>MM 900: Added new drawing to 902-12 for 3M meter, 14” water column delivery, off of medium pressure main.</td>
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| 3.5      | July 2015 | Cover Letter and Foreword: Updated Contacts  
Added pedestals for Commercial and MDOT use (400-1)  
Revised wording for clarification, including changing from “portable generator” to “backup generator” |
| 4.0      | October 2015 | Changed format of the Table of Contents (uses Word’s self-update feature)  
Added fire pump and elevator under Dual Services; Removed requirement for totalizers (102-2)  
Added requirements for installation of electric meters in a flood zone (105-2); specified PVC duct requirement for service cables that are installed underneath an overbuild, e.g. patio/deck/paving (105-3); removed arrow to Front of Building figure (105-3)  
Updated contacts (701-4)  
Clarified requirements for installations of gas meters in a flood zone (705-8) |
| 4.1      | March 2016 | Added Millbank U5136-O.**** and U5137-O.**** model numbers in Section 400-1  
Consolidated Meter Protection for Electric, Combined Gas and Electric, and Gas Metering into one Meter Protection Section and inserted after Definitions. Removed meter protection standards paragraphs from Sections 100, 400, 600 and 700  
Added to Meter Protection section Figures 11-14 for Options A and B specifying relocation requirements for elevating indoor gas meter within garages  
Added BGE Outdoor Metering Location Standard as Sections 105-2, 601-2, 705-1. Removed outdoor metering location standards paragraphs from Sections 100, 600 and 700  
Revised ‘not normal conditions’ to Exceptions to the BGE Outdoor Metering Location Standard in Sections 105-3, 601-2 and 705-1  
Removed Indoor Metering Configurations B and C from Section 603  
Removed “Typical Townhouse Indoor Meter Drawings” from Section 603 and relocated content to new Section 605 and retitled heading to Specifications for Meter Installation Meeting One or More Exceptions to the BGE Outdoor Metering Location Standard  
Revised Section 705-5 Meters - General Rules paragraph ‘H.’ to “Gas metering assemblies located indoors will not be installed in garages.” |
| 5.0      | December 2018 | Revised Section 107-2 Map of Electric Meter Inspector Responsibilities: Change in contact information.  
Revised Section 406 Approved Service Entrance Compartment: From “A pit is required where eight (8) or more ducts are provided for the installation of Company Underground wiring” to “A pit is required to be installed below the metering compartment” as part of a Safety Council initiative.  
Added Section 506 Meter Requirements Review: Small Generator Interconnection as part of Exelon Reporting Commitment.  
Revised Sections 602 Outdoor Metering Installation Options and MM800 Typical Residential & Small Commercial Gas Meter Set Drawings: minimum clear space in front of meter(s) from wall to be 56” instead of 54” as a correction per field measurement. The minimum work space required is 69” H. |

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<td>6.0</td>
<td>May 2019</td>
<td>Revised Section 414, Service Entrance Trough Requirements, to indicate a minimum 6” clearance is required above floor line for trough installs. Pages 400-19 and 400-20 updated. Meter Protection Section is updated to reflect these changes as well. Added Section 415, Meter Pedestals with Lever Bypass for Traffic Control Signals. Meter pedestals that are used for traffic signals shall have a lever bypass.</td>
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This blank page is inserted for two-sided printing
Dear Metering Manual Holder,

This Baltimore Gas and Electric (BGE) Gas & Electric Metering Manual supersedes all previous editions. Please take time to familiarize yourself with the manual by reviewing all of the sections.

The current version of the Metering Manual is available for download at the following address:

www.bge.com/meteringmanual

If you would like to be included on our mailing list to receive revision notifications, please make sure that BGE has your current email address. If you have contacted BGE for revision notifications in the past, you will continue to automatically receive notifications of future releases. You may update your contact information by the following:

1. Submit a new email address at www.bge.com/meteringmanual
2. Send an email directly to BGEMeterManual@bge.com

For technical questions concerning this manual, please call one of the following:
Andrew Ober  410-470-1737 (Manager, Smart Metering & Technology)
Rasheeda Clark  410-470-9069 (Supervisor, Smart Metering & Technology)
Alex Aker  410-470-8851 (Gas Metering)
Kam Kit Yiu  410-470-7992 (Electric Metering)
Jeffrey Chiucchi  410-470-0266 (Gas Metering)
Jeffrey Szrom  410-470-6935 (Electric Metering)

Sincerely,

BGE Smart Metering & Technology Unit
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Gas & Electric Metering Manual
Baltimore Gas and Electric Company

May 2019
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Purpose

The purpose of this manual is provide a clear and concise reference to architects, engineers, builders, developers, plumbers, HVAC contractors, electricians, and BGE personnel, as well as anyone else concerned with the planning and construction of gas and electric meter installations. It is intended to clarify BGE installation requirements and facilitate coordination between the building community and BGE. The standards contained in this manual should be taken into account during the planning and design stages of all residential, commercial, and industrial facilities. This manual was not written to cover all conditions; however, BGE has representatives who will discuss unusual or special needs with its customers. To obtain contact information, please refer to Section 100 or Section 700.

It is the policy of BGE to assist its customers in securing a more beneficial use of gas and electricity. Experience has shown that certain rules and regulations governing customer’s meter installations are necessary to enable BGE to serve all its customers in a consistent manner. These rules and regulations will serve to expedite service connections by establishing uniform standards for gas and electric service.

Where new gas and electrical installations, additions, or alterations are contemplated, inquiry should be made in advance of construction or equipment purchase to assure that service will be available at the time required. This will also allow BGE to review characteristics and conditions of supply, conditions of use, and location of equipment.

Per BGE’s gas and electric tariffs, BGE may refuse or discontinue service and remove its property for customer’s failure to comply with any of the applicable rules and practices currently in effect. For further information, BGE’s rules and regulations are contained in tariffs as filed with the Public Service Commission of the State of Maryland.
Scope

This manual details BGE’s standards for nearly all types of gas and electric metering installations deployed in its service territory. The manual is broken down into three primary areas: electric metering, gas and electric combined metering, and gas metering.

Within the electric meter portion of this manual, all aspects of customer usage, from single phase, 120/240 VAC residential installations through three phase, 277/480 Volts Alternating Current (VAC) industrial and commercial (I&C) installations are covered. Primary voltage (greater than 4,000 volts) metering installations are engineered on a case by case basis and are not included in this manual.

This manual also outlines BGE requirements to safely provide adequate and reliable electric service to our Customers. The standards, practices and procedures described in this manual apply to BGE electric metering installations and the work associated with providing service. An electric metering installation is defined as the wiring and equipment which transports electricity and measures its usage from the service termination to the connection with the Customer’s equipment (e.g. service panel, disconnect switch, transformer, etc.).

The electric section of this manual does not cover the design or installation of electrical wiring or equipment on the Customer’s premises (house wiring). Construction and permitting requirements beyond the point of connection to the Customer’s equipment are dependent upon the local permitting agency and/or building codes.

Found within the combined residential gas and electric metering section of this manual are the installation requirements for side-by-side gas and electric meter installations on residential dwellings. This section specifically targets town houses and single-family homes.

The gas section of this manual covers nearly all residential and most I&C gas meter and regulator installations with standard delivery. Typical delivery is 7” water column (w.c.) or 2 pounds per square inch gauge (psig), depending on which BGE pressure system you are being serviced from. New gas metering installations are covered, as well as, replacements for existing gas metering installations. All standard delivery installations up to 23,000 Cubic Feet per Hour (CFH) at standard delivery or 25,875 CFH at 2 psig delivery capacity are subject to “Standard Designs”. Capacities in excess of 23,000 / 25,875 CFH or greater than 7” w.c. or 2 psig delivery pressures require individual designs by BGE. Pressure systems able to supply other than 7” w.c. or 2 psig are not available in all areas; please check with your BGE Representative.

The gas metering installation section outlines BGE requirements to safely provide adequate and reliable gas service to customers. The standards, practices and procedures described in this manual apply to BGE gas metering installations and the work associated with providing service. A gas metering assembly is defined as the piping and equipment which transports and measures gas from the service termination to the connection with the customer’s piping (Point of Service). This construction is often called a meter/regulator set. Construction and permitting requirements beyond the "Point of Service" are dependent upon the local permitting agency and/or building codes and are not covered in this manual.
Definitions

This section sets forth the definitions for various terms used in this manual and their source or sources where appropriate. Where no reference is provided, the definition provided is that applicable to the Company’s practices.

AGA: American Gas Association

ANSI: American National Standards Institute

ASTM: American Society for Testing Materials

Accessible, Readily: (Readily Accessible) Capable of being reached quickly for operation, maintenance, or inspections, without requiring those to whom ready access is requisite to climb over or remove obstacles (such as panels or doors) or to resort to portable ladders, chairs, etc.

Appliance (Equipment): Any device that utilizes gas as a fuel or raw material to produce light, heat, power or air conditioning.

Approved: refers to materials and methods meeting the requirements of the current editions of the BGE’s Gas & Electric Metering Manual, the Code of Maryland Regulations, the D.O.T. Office of Pipeline Safety CFR 49 Regulations Part 192, the National Electrical Code, the National Electrical Safety Code, the National Fuel Gas Code, or the inspection authority having jurisdiction, or of a recognized laboratory test.

Authority Having Jurisdiction: The organization, office or individual responsible for “approving” equipment, an installation or a procedure.

Note: The phrase “authority having jurisdiction” is used in this standard in a broad manner since jurisdictions and “approval” agencies vary as do their responsibilities. Where public safety is primary, the “authority having jurisdiction” may be a federal, state, local or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department, health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau or other insurance company representative may be the “authority having jurisdiction.” In many circumstances the property owner or his or her delegated agent is the “authority having jurisdiction”; at government installations, the commanding officer or departmental official may be the “authority having jurisdiction.”

BGE: Baltimore Gas and Electric Company

BTU: British Thermal Unit

Barrel Lock: A cylindrical, barrel shaped lock used by utilities to prevent unauthorized use of utility services.

Barrel Lock Key: A special key used by utilities to unlock the barrel lock.

Building: Is a "permanent structure that is enclosed within exterior walls or fire walls” as described in an architectural drawing based on the latest International Building Code and Local Code and stamped by the architect on record with the State of Maryland.

C & I: Commercial and Industrial

CFH: Cubic Feet Per Hour
**DEFINITIONS**

**Page Definitions**

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**CFR:** Code of Federal Regulation is a publication which contains the performance standards for pipeline safety as established through the Office of Pipeline Safety by the Research and Special Programs Administration of the Federal Department of Transportation (DOT).

**COMAR:** Code of Maryland Regulations is a compilation of the State’s Administrative Regulations including Public Service Commission Regulations regarding service supplied by gas and electric companies.

**CT (or C.T.):** Current transformer

**Cabinet:** An enclosure designed either for surface or flush mounting and provided with a frame, mat, or trim in which a swinging door or doors are or may be hung.

**Company:** Baltimore Gas and Electric Company

**Concealed Gas Piping:** Gas piping installed in a finished building would require removal of permanent construction to gain access to the piping.

**Customer:** Any person, partnership, association, corporation or governmental agency being supplied with gas and/or electric service by a utility. (Ref. COMAR 20.55.01.04)

**Customer Main Gas Valve:** Valve installed at the outlet of the meter set, this valve serves as the connection point between utility piping and customer piping - that is “Point of Service”.

**DOT or D.O.T.:** Federal Department of Transportation

**Delivery Pressure:** The gas pressure which BGE provides to the customer and upon which the customer’s piping and equipment must be sized.

**Delivery Pressure (2 PSIG):** For design purposes it has been established as 2 pounds per square inch gauge with a plus / minus of 1% at the outlet of the meter (at the customer’s main gas valve).

**Delivery Pressure (Standard):** For design purposes it has been established as 3” w.c. to 10” w.c. at the outlet of the meter (at the customer’s main gas valve).

**Distribution Line:** A pipeline other than a gathering or transmission line. (Ref.49 CFR 192.3)

**Distribution System:** The mains, services, regulating and metering equipment and appurtenances used to distribute gas from the source of supply (Gate Station) to customers.

**Doubtful Permanency Service:** refers to a service intended for two (2) years or less, such as for construction, exhibit, or carnival purposes. The temporary facility will be removed at the completion of its use.

**Emergency Standby Generator:** refers to generators that normally operate when BGE service is unavailable and which are connected in such a manner that no interconnection can exist.

**Front of the Building:** is defined by the structure of the building facing the street that BGE is planning to install the utilities, the direction of the service lateral.

**Front Distribution:** is defined by BGE distributing its utilities from the street side to the location on the building closest to that side.
**High Pressure (HP):** Refers to that part of the Company’s distribution system where the maximum allowable operating pressure is established as 99 psig and the minimum actual operating pressure is 25 psig on the main.

**I&C:** Industrial and Commercial

**Leak Check or Leak Test:** An operation performed on a complete gas piping system and connected equipment prior to placing it into operation following initial installation and pressure testing or interruption of gas supply to verify that the system does not leak.

**Low Pressure (LP):** Refers to that part of the Company’s distribution system where the maximum actual operating pressure is established as 10 inches Water Column and the minimum actual operating pressure is 3 inches Water Column on the main.

**MSS:** Manufacturers Standardization Society of the Valve and Fitting Industry

**Main:** A distribution line that serves as a common source of supply for more than one service line. (Ref. 49 CFR 192.3) and (Ref. COMAR 20.55.01.04)

**Master Meter:** The meter through which the public utility supplies gas to a customer who in turn distributes the gas by pipeline to the ultimate users of the gas who may or may not be individually metered. (Ref. Preamble Amdt. 192.3, Docket OPS-9, April 5, 1973 Federal Register).

**Medium Pressure (MP):** Refers to that part of the Company’s distribution system where the maximum allowable operating pressure is 10 psig and the minimum actual operating pressure is 2 psig on the main.

**Metal-Clad Switchgear:** refers to a metal structure containing a main switching and interrupting device and other associated equipment. A separate grounded metal compartment is required for the metering transformers, busses and connections.

**Meter, Electric:** Unless otherwise qualified, a device of the utility used in measuring watts, vars, var-hours, volt-amperes, or volt-ampere-hours. (Ref. COMAR 20.50.01.03)

**Meter, Gas:** Without other qualification, shall mean any device, which is used by a utility in measuring a quantity of gas. (Ref. COMAR 20.55.01.04)

**Meter Assembly, Gas:** That part of the Company’s distribution system from the end of the service line to the Point of Service and comprises all pipe, valves, fittings, meters, regulators and appurtenances required.

**NEC:** National Electrical Code

**NESC:** National Electric Safety Code

**NFGC:** National Fuel Gas Code

**NFPA:** National Fire Protection Association

**Over High Pressure (OHP):** Refers to the part of the Company’s distribution system where the maximum allowable operating pressure is typically established as 300 psig, but may be lower dependent upon specific line’s qualification report, and the minimum actual operating pressure is 125 psig on the main.

**P.S.C.:** Public Service Commission of Maryland
PSIA: Pounds per square inch, absolute. Includes the gauge reading and atmospheric pressures together.

PSIG: Pounds per square inch, gauge

Pipeline: All parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor stations, metering stations, regulation stations, deliver stations, holders and fabricated assemblies. (Ref. 49 CFR 192.3) (Ref. COMAR 20.55.01.04)

Places of Public Assembly: Any building or portions of a building used for gathering together 100 or more persons, such capacity being designated by the Fire Department for common purposes of deliberation, worship or services, such as, but not limited to, churches, schools, hospitals, halls, theaters and municipal facilities. (Ref. COMAR 20.55.01.04)

Point of Connection: is that point external to the building where facilities installed by BGE are connected to the customer’s facilities.
   a. The point of connection for overhead secondary services is at the service head on the customer’s building or structure and adjacent to the first point of attachment of the service drop to the building or structure.
   b. The point of connection for underground secondary services including URD from underground mains is (1) for outdoor meter locations - at the meter mounting equipment, or (2) for indoor meter locations - just within the building wall at the point where the service run enters the building or at the splice box just outside the building.

Point of Service (P.O.S.): Location at the outlet side of the Company’s meter assembly where the connection between the customer’s piping and the Company’s meter assembly is made.

Premises: A tract of land or real estate, including buildings and other appurtenances on it.

Pressure Test: An operation performed to verify the gas tight integrity of gas piping following its installation or modification.

Purge: To free a gas pipeline of air or gas, or a mixture of gas and air.

Readily Accessible: See Accessible, Readily

Regulator, Service: A pressure regulator installed by the serving gas supplier to reduce and limit the service line gas pressure to delivery pressure.

Regulator Vent: The opening in the atmospheric side of the regulator housing permitting the in and out movement of air to compensate for the movement of the regulator diaphragm.

Seals: A device to allow visual evidence of tampering.

Seals, Provisions for: The Customer shall, before service is supplied, equip all cabinets, switches or circuit breakers, fittings and other enclosures giving access to unmetered wiring, for the application of seals which will be provided by the Company and which, together with the meter seal, shall be readily accessible to the Company. By the application of a Company seal, BGE assumes no ownership of, liability, or responsibility for maintenance of said equipment.

Secondary Service: refers to service metered at nominal voltages of 600 volts or less.
Service, Electric: refers to the supply of electricity to the customer.

Service, Gas: Means a distribution line that transports gas from a common source of supply (main) to the meter assembly.

Service Drop: refers to the portion of an overhead service run from the last pole to the point of connection to the customer’s facilities.

Source of Ignition: Devices or equipment that, because of their intended mode of use or operation, are capable of providing sufficient thermal energy to ignite flammable gas-air mixtures.

Splice Box: A subsurface enclosure that is used for the purpose of installing, operating or maintaining underground conductors, splices and terminations.

Tariff: The Electric Service Tariff Comprises the rules and rates, as filed with the PSC, under which electric service is supplied by BGE to its customers. The Gas Service Tariff Comprises the rules and rates, as filed with the PSC, under which gas service is supplied by BGE to its customers.

U.L.: Underwriters Laboratory

Underground Residential Distribution (URD): refers to the system in which the distribution lines and service conductors, with minor exceptions, are buried directly in earth. Requirements are governed by The Maryland Public Service Commission.

w.c.: Water Column
Meter Protection

The purpose of this section is to address the meter protection standards for residential and commercial gas and electric meters. However, this section is to be used in conjunction with the other sections in this manual. Please be familiar with the other sections as well.

**Electric Meter Protection**

**Traffic Protection**

The following are general rules for pipe bollards used to provide protection for electric meters subject to vehicle traffic.

**Electric Meters - Residential Locations**

1. Steel pipe bollards, 2" nominal diameter and 36" from final grade filled with concrete.

2. Each bollard to be set in a footer consisting of a 3 ½ gallon bucket (11.75”D x 11”H), filled with concrete or Company approved equivalent.

3. The bollards should be located two (2) feet from the wall. This is an exception to the requirement that the customer shall maintain at least three (3) feet of unobstructed space in front of the meter.

4. The bollards should not be placed directly over the gas or electric service.
Concrete Curb Barriers / Pipe Guard (Typical Installation)

**Meter Protection - For one residential meter**
Concrete curb barrier or pipe guard for meter installed over a residential sidewalk.

**Note:** If multiple meters are installed, add space for each additional meter at the centerline, so that the configuration remains as shown with the additional width provided. For more than three meters, a center pipe support should be installed.
Figure 2

- Location of Overhead Service
- Alternate Steel Fire Guard (Install below socket box)
- Note: Curb may be filled solid with concrete or earth and used as a flower planter.
- Sidewalk: 36" Min.
- Width
- 24" Deep
- Customer must install raceway beyond sidewalk into grass area.
Pipe Guard Specifications

Pipe guards shall be fabricated from threaded or welded steel pipe. They should be mounted below meter sockets to allow meter inspection and removal.

**Note:** Pipe guards should not be used to provide protection from vehicles. In cases where a meter(s) is susceptible to damage from cars and trucks, such as parking lots and driveways, bollards must be installed.

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**Figure 3**

[Diagram of threaded and welded pipe guards with dimensions and labels:]
Electric Meter Protection - Service Entrance Trough Standards

BGE has implemented new service entrance trough requirements to protect utility and contract personnel from electrical injury. These requirements focus on protecting, supporting and training service entrance cables. They also include new requirements for trough support and trough covers. New trough access procedures are also detailed below.

The company has pre-approved specifications for service entrance troughs with the vendors listed below.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.M. Gillin Corp.</td>
<td>410-728-8700</td>
</tr>
<tr>
<td>S.A.R Metal Products</td>
<td>410-780-5434</td>
</tr>
<tr>
<td>Atlantic Sheet Metals</td>
<td>410-391-8066</td>
</tr>
</tbody>
</table>

See drawing (following page) for details of service entrance trough requirements.

Customer Furnishes and Installs

1. 14” (W) x 14” (H) service entrance trough (various lengths) to be constructed of 14-gauge steel or 10-gauge aluminum.
2. Trough cover(s) – maximum 48” in length. Two handles per cover (see drawing).
3. Trough support brackets – affixed to wall every 48”. A minimum 6” clearance is required below trough support brackets.
4. See Notes (N1), (N2), (N3), and (N4).

Company Furnishes and Installs:

(A) Terminal Blocks (Not Shown)

Notes:

(N1) Enclosed channel to prevent screw penetration into trough as shown in drawing. Use blunt point sheet metal screws or machine screws no longer than 3/4”. Design may vary by manufacturer. Any variations from drawing must be approved by BGE.
(N2) Wire tie channel with 1/4” inch slot inside trough every 24” for cable training and support.
(N3) Guide pins or tabs to align and support trough cover. Two guide pins or tabs minimum per trough cover. They should also provide provisions for sealing trough.
(N4) Guide pin holes.


Trough Access Procedure (effective April 2009)
1. Master or Licensed Electrician calls BGE (G&E New Business Line: 410-637-8713/800-233-1854) to inform BGE of planned worked involving an electrical trough.
2. Call is routed to appropriate M&I Meter Inspector based on geographic responsibility.
3. Meter Inspector discusses job with electrician to obtain necessary information (e.g. Work Order# (if available), address, customer, reason for access, electrician’s name, expected date of completion, etc.)
4. Meter Inspector notes request in Asset Suite (if job exists at this location) or meter inspection reports (if job does not exist in Asset Suite) maintained by M&I.
5. If necessary, Meter Inspector travels to job site for pre-work inspection and contacts the electrician.
6. Master or Licensed Electrician performs work on the trough and calls Meter Inspector to indicate work is complete.
7. If BGE follow up work remains, field crew will reseal trough. If follow up BGE work is not required, Meter Inspector reseals trough. If Meter Inspector has not heard from electrician within 10 days after expected completion date, he contacts electrician to follow-up on job status.
Combined Gas and Electric Meter Protection

The following are general rules for pipe bollards used to provide protection for gas metering assemblies subject to vehicle traffic. The assembly requires protection from vehicle traffic in either direction, which may require utilization of multiple bollards. For example, an assembly located next to a driveway needs to be protected from cars either pulling in or backing out of that driveway.

A. Townhome (Combined Gas and Electric) Residential Meter Protection Requirements

Meters, regulators and risers require protection on each side from vehicle traffic. For example, meter and/or regulator assemblies located next to a driveway requires protection from cars pulling into or backing out of that driveway. Figures 5 through 7 show bollard placement requirements for meters, regulators, and compact meter & regulator assemblies next to a driveway, respectively.

The following are general rules for bollards (pipe guards) to provide protection for residential meters:

1. Steel-pipe bollards, 2-1/2" diameter and filled with concrete.

2. Each bollard to be set in a footer consisting of a 3 ½ gallon bucket, filled with concrete, or Company approved equivalent.

3. The bollards should be located two (2) feet from the finished wall. This is an approved exception to the rule requiring customers to maintain at least three (3) feet of unobstructed space in front of the meter.

4. The bollards shall extend at least 36" above final grade and at least 12" below grade.
Figure 5 – Meter Set

Figure 6 – Regulator Set
B. Single Family Home Residential Gas Meter Protection Requirements

1. Steel pipe bollards, 2 1/2\" diameter and filled with concrete, shall extend at least 36\" above final grade and at least 12\" below grade

2. Each bollard to be set in a footer consisting of a 3 ½ gallon bucket (11.75"D x 11"H), filled with concrete or Company approved equivalent.

3. The bollards should be located two (2) feet from the wall. This is an exception to the customer shall maintain at three (3) feet of unobstructed space in front of the meter.

4. The bollards should not be placed directly over the gas or electric service.

5. If the gas metering assembly is located so that a building wall can provide adequate protection, only one bollard is required.
Figure 8
Gas Meter Protection Standards

Meter & Riser Protection

Measures shall be taken to protect gas metering assemblies from vandalism, damage and unauthorized tampering with assembly. It is the responsibility of the Customer to provide protection for the meter assembly. Please contact a BGE representative in advance of BGE running services to confirm if proper protection is required.

(Reference: BGE Gas Service Tariff, Section 2.4(a), 4.1, 5.3, and 6.1)

If metering equipment is to be installed within three (3) feet of an area subject to vehicular traffic (driveway, alley, roadway, garage, etc.), a meter protection bollard is required. **Effective for any Extension Relocation Contracts (ERC) issued after August 1, 2009,** BGE will install the required traffic protection for residential single family homes at the expense of the customer. This does not include multi-meter manifolds for apartment/condo installations, that requirement is covered under Commercial & Industrial installations.

*Note: If bollards are to be installed call Miss Utility before any digging.*
Commercial & Industrial Gas Meter Protection

For Commercial & Industrial or multi-meter installations (apartment / condo buildings) the Customer/Builder will be required to provide protection for the equipment -- typically a concrete-filled steel bollard or bollards -- at their expense. If necessary, the Customer is notified in advance that they must provide protective equipment. The protection levels and parameters are specified by BGE for the Customer. The preferred method is that the customer arrange for this.

If the Customer cannot provide the protection, the Company will provide it and charge the Customer the full cost on a charge-order. The Company does not include meter or regulator protection costs into the total capital cost of the project, and will apply the actual cost the amount charged. There is also an important distinction between meter or regulator protection and transformer protection. The above policy only covers meter / regulator protection.

Other requirements may apply, please consult with your BGE representative for further details.

(Reference: BGE Gas Service Tariff, Customer's Installation, Section 6.1.)

Commercial and Industrial Meter Protection Requirements

For a gas metering assembly with the BGE gas service riser on the left side, follow the general rules listed below. For an assembly with the service on the right side, just reverse the bollard locations.

1. Steel pipe bollards 4" diameter that extend at least 48" from final grade and filled with concrete are adequate protection.

2. Each bollard to be placed in a minimum of a 12" x 12" x 36" high concrete footer. At least 24" of the bollard is to be encased in the footer.

3. From the piece of equipment protruding furthest from the metering assembly, the bollards should be located a minimum of three (3) feet outwards from this point.

4. The first bollard should start one (1) foot from the center of the service riser.

5. The last bollard should be about one (1) foot from the center of the metering assembly.

6. There should be not more than three (3) feet center-to-center spacing between each bollard. If required, additional bollards should be installed between the two outer bollards to provide additional protection.
7. Do not install a bollard in-line with gas meter in order to ensure proper access for maintenance.

8. If bollards are to be installed where they may be restricting access to equipment, BGE requires “removable” bollards to be installed. See Figure 1001-3C on the next page.

Figure 9
Figure 10

**FILL PIPE WITH CONCRETE**

**4" GUARD PIPE**

12" 24" 48"

**STATIONARY GUARD PIPE**

**5" PIPE SLEEVE**

4" 24" 12"

**REMOVABLE GUARD PIPE ASSEMBLY (IF REQUIRED)**

12"
101 Characteristics of Supply

101-1 General

The Customer shall consult the Company as to the characteristics and availability of the Company’s service at a particular location before proceeding with plans for any installation, whether it be a new one, an addition, a replacement, or a transfer from one location within the territory to another.

101-2 Standard Service at Secondary Distribution System Voltages

The characteristics of standard service, namely alternating current at 60 hertz, are as follows (voltages are nominal):

A. Single-phase, three-wire, 120/208 volts — For a service not exceeding 60 amps when supplied from the Network secondary distribution system, which supplies the central business district of Baltimore City, or for a service not exceeding 200 amps when supplied from the radial distribution system, which supplies the territory beyond the Network. – See Map in Section 107-3.

B. Single-phase, three-wire, 120/240 volts — For lighting, appliances, and small motors (refer to Section 103-3).

C. Three-phase, four-wire, 208Y/120 volts — For all requirements.

D. Three-phase, four-wire, 480Y/277 volts — For all requirements where the Customer’s connected load exceeds 150 kW or for connected loads less than 150 kW where approved by the Company.

E. Three-phase, three-wire, 240 volts — For all requirements in combination with single-phase, 120/240 volts, used as an alternative to the voltages noted in C and D.

NOTE: Delta (power wire) System is not a standard service. Single-phase, two-wire, 120 volts is not a standard service.

Refer to Section 502 for diagrams of the various electrical services.
102 Conditions of Supply

102-1 Supply Points

BGE provides electric service to customers based on the conditions set forth by the Maryland Public Service Commission – BGE Electric service Tariff. The following excerpt is the “Conditions of Supply” of the BGE Electric Service Tariff, Part 2 that discusses “Supply Points”.

BGE Electric Service Tariff, Part 2

Section 2: Conditions of Supply

2.2 Supply Points: It is the standard practice of the company to provide (subject to the provisions of Section 8 Extensions):

(a) One service connection

1. for all the requirements of the Customer on a single property; where the supply is for his use in a group of buildings, the supply point is located, wherever practicable, at a location central to the group;

2. for any separate building of a group on a Customer’s property, upon request, provided such service is for the entire requirements of that building;

3. for any separate building occupied by one or more Customers.

Where practicable, a single loop is provided for a pair of adjoining buildings.

(b) One meter installation – for all requirements of each Customer at each supply point; where two or more Customers are supplied from one service connection, a centralized meter location is required wherever practicable. Each meter installation shall have a separate application of the rate schedule.

The Company will supply:

A. One Service Connection

1. For all the requirements of a Customer on a single property, centrally located, whenever supplying a group of buildings.

2. For the entire requirements of any one of a group of buildings on a Customer’s property, upon request.

3. For any building occupied by one or more Customers.
B. One Meter Installation

1. For each Customer at a service connection, centrally located, whenever the service connection is supplying more than one Customer.

Note: The Company considers as one service connection and as one meter installation, the combination of single-phase and three-phase services as stated in Section 101-2E.

Two or more service connections of the same characteristics where required by the Company:

1. By reason of the size of the load.
2. By reason of the character of the load such as where a combination of a welder or any X-ray on the same service with lighting is impracticable.
3. Will normally permit more than one meter per Customer on the same class of service where the Customer takes over more than one meter area and wiring is existing and wiring changes are not planned. If the combined load exceeds 30,000 kWH per month, the meters must be totalized so that coincidental demand can be captured. Customer must pay based on BGE calculations from customer provided load estimates for any required wiring and totalizing equipment.
4. Will not permit more than one meter on the same class of service in new construction or where building is being rewired.

102-2 Dual Services

Change of Service

BGE provides more than one service connection where warranted by exception for special conditions, special occupancies and capacity requirements. During new construction or renovation, BGE will provide a new service connection of different characteristics and allow the original service connection to remain for up to five (5) days. After five (5) days, the original service connection will be removed. Extensions for large industrial and commercial projects may be considered upon review and with written consent from BGE. This policy does not apply for Doubtful Permanency services.

Additional Services

The fire pump service, which is only required by the authority having jurisdiction (AHJ), must be fed from a separate service from the transformer. In addition, for elevators on multi-tenant buildings, they must have a separate service from the transformer.
103 Conditions of Use

103-1 Avoidance of Injury to Equipment

The Customer shall not use equipment to injuriously affect the Company’s equipment or the Company’s service to other Customers. Any protective devices necessary to attain that end shall be furnished, installed, and maintained by the Customer, subject to the approval of the Company.

103-2 Loss or Damage from Use of Electricity

The Company is not liable to any party for any loss, damage, or expense resulting from the use or presence of current, potential, or an electric appliance on the Customer’s premises. Where the normal utilization and operation of its facilities, the Customer utilizes equipment or apparatus which is adversely affected by variations in the Company’s supply, the Customer shall furnish, install and maintain, subject to the approval of the Company, any corrective devices necessary for the satisfactory utilization of the Company’s service.

103-3 Installation Requiring Special Consideration

The Company shall be consulted (BGE New Business Planning) prior to the preparation of plans for the installation of any of the following:

A. A single-phase motor with 3 or more horse-power.
B. A three-phase motor with 25 or more horse-power.
C. A motor requiring frequent starting.
D. A synchronous motor. (Motors of this type are recommended for large installations for power factor correction.)
E. A single-phase motor on a three-phase service.
F. Group operated motors started automatically. (Sequence starting may be required.)
G. Certain AC equipment such as welders, X-rays, radio transmitters, rectifiers, signal systems and air conditioning.
H. Service at Primary Systems voltages.
I. A sign, phone booth, CATV, etc., Company supplies 1Ø,3W 120/240 volts line side, Customer connects 1Ø,2W 120 volts load side, one 20 ampere circuit or two 15 ampere circuits.

Where this equipment requires other than standard construction by the Company to prevent objectionable interference with the Company’s service to any of its Customers, the Customer shall install and maintain any corrective measure to prevent this interference or, as compensation, pay the Company the estimated cost for special construction.
103-4 Load Balancing

The Customer’s load shall be balanced over the phases as equally as commercial practice will permit, and the Customer shall maintain this balance.

103-5 Superposition of Electric Energy on the Company’s Electric System

Where the Customer’s equipment couples electric energy to his electric system for equipment control, carrier current transmission, signal systems, broadcasting, communication, or any other purpose, the Customer shall install equipment suitable to prevent this energy from being imposed upon or entering the Company’s electric system.

103-6 Available Fault Currents

A. Single (Detached) Residences – Overhead or Underground Supply:

1. Service Ampacity Not Exceeding 200 - Available fault currents at the service equipment will be more than 5,000 amps but will not exceed 10,000 amps.

2. Service Ampacity Exceeding 200 - The magnitude of maximum available fault currents at the service equipment, which may exceed 10,000 amps, will be furnished by the Company upon request.

B. Townhouse, Semi-Detached or Duplex Residences – Overhead or Underground Supply:

The magnitude of maximum available fault currents at the service equipment, which may exceed 10,000 amps, will be furnished by the Company upon request. However, the available secondary fault current will not exceed 22,000 amps.

C. Commercial and Industrial Occupancies and Apartment Buildings - Overhead or Underground Supply:

Consult the Company for available fault currents since they will vary for each installation.
104 Customer’s Installation

104-1 Governing Rules

All wiring upon the Customer’s premises shall be installed and maintained in accordance with applicable laws and the rules of the governmental authority having jurisdiction and the Company. The rules of the Company are in addition to, not a waiver of, the rules of the inspection authority having jurisdiction.

104-2 Certificate of Approval

The Customer shall obtain such certificates of approval as may be legally prescribed for wiring upon the premises. Before service is supplied to the Customer, the Company must be notified of such approval in writing, by either the inspection department of the governmental authority having Jurisdiction or its authorized inspection agency.

104-3 Space Provisions for Company Equipment

The Customer shall provide, acceptable to the Company, suitable space and sufficient supporting structure for the Company’s metering and service equipment. Where applicable, the Customer shall provide, acceptable to the Company, suitable space (including a vault, if required) for the Company’s transformers and auxiliary equipment.

104-4 Protection Against Loss of Service and Damage to Company Metering Equipment

The Customer, where required, shall furnish and install traffic protection barriers and/or an enclosure of sufficient size (made of a minimum 12-gauge sheet metal) for meter and meter device at certain otherwise unprotected, outdoor installations. See Section 106.

104-5 Point of Service Connection

The Customer shall bring the service wiring to a point of service connection specified by the Company. If it becomes necessary to change the point of connection, the Customer shall bring the wiring to the new point.

ALL CONNECTIONS TO AND DISCONNECTIONS FROM THE COMPANY’S SYSTEM SHALL BE MADE BY THE COMPANY.

104-6 Change in Class of Service

Where the class of service is to be changed, the Customer shall be responsible for all necessary changes in the wiring and equipment to comply with the governing rules (refer to Section 104-1).
104-7 Grounding

The Customer shall install and connect the grounding electrode conductor on the line side of the Customer’s main disconnecting means, for each service supplied by the Company.

Gas piping systems shall not be used as grounding electrodes. All other grounding electrodes and grounding and bonding conductors shall be used as required by the National Electrical Code®.

104-8 Provisions for Sealing

The Customer shall, before service is supplied, equip all cabinets, switches or circuit breakers, fittings and other enclosures giving access to unmetered wiring, for the application of seals which will be provided by the Company and which, together with the meter seal, shall be readily accessible to the Company. By the application of a Company seal, BGE assumes no ownership, liability, or responsibility for maintenance of said equipment.

The main disconnecting means, when installed on the supply side (line side) of the meter, shall be so designed that the unmetered conductors are inaccessible without breaking the Company seal, even during the renewal of fuses or the operation of circuit breaker trip handles.

Note: The fusible pull-out type shall not be installed without prior approval of Meter Engineering.

104-9 Customer-Owned Metering Equipment

The Company will accept specific UL approved metering equipment for use on its electrical system. Equipment from various sources was evaluated for construction quality, accessibility, and provisions for sealing. The following list describes the equipment and references sections in the manual where additional information can be found.

A. Current Transformer Cabinet - See Section 400 - Electric Metering.

B. Switchgear - Company approved compartments in switchgear to house Company metering instrument transformers, unmetered service equipment, or cable termination facilities.

Note: Prior to manufacture of the switchgear, the Customer shall submit at least three sets of the switchgear drawings (the Company will retain two sets) for Company approval

C. Modular Metering - Company approved modular (group) metering units are listed in Table 402.

Note: See Sections 219, 321 and 402 for modular metering equipment.

D. Pedestal Metering - Company approved pedestal units are listed in Table 401.
104-10 Pulse Metering

At the request of the Customer, the Company will provide pulse-metering service. Pulse metering is available to Customers who want near real time data for load management. A pulse output from the meter is available which allows the Customer or the Customer's Electricity Supplier to monitor total load of the service or building.

A junction box is provided by the Company to interface with the Customer’s wiring. **The Company will make all wiring connections from the metering equipment to the junction box.**

The Customer is responsible for providing the required voltage input (less than 120 Volts, 75 VA MAX,) and the wiring from the interface box to their computer/load management system.
105 Location of Metering Equipment

105-1 General Provisions

Locations for metering equipment are mutually agreed upon by the Customer and the Company, subject to final approval by the Company.

These locations shall be free of any conditions detrimental to the Company’s metering equipment, and the equipment or its location shall not create a hazard or an inconvenience. No metering equipment shall be located on a marina (boat) pier. Also, see Section 105-3 regarding indoor installations, which are non-standard.

Where more than one Customer is to be supplied, each meter shall be readily accessible to the Customer served by it and the Company. All meters shall be grouped at one location.

Each Customer’s service disconnect shall be legibly and durably marked to designate the specific area served. Durable, legible labeling (with paint) denoting area/unit(s) served by each meter and disconnecting device. Experience shows that failure to provide proper identification on multiple meter installations (area/unit(s) served; apartments, offices, or stores) often results in meters being installed that supply other than the area/unit(s) for which intended.

Therefore, electric meters will not be installed on such installations until you have properly identified the area/unit(s) and sub-panel(s) on the meter socket and disconnecting device.

105-2 BGE Outdoor Metering Location Standard

In conjunction with the BGE Electric Service Tariff, BGE has developed a "BGE Outdoor Metering Location Standard". All meters are to be installed on the outside of buildings, except as provided for in the Exceptions to the BGE Outdoor Metering Location Standard section below. All meter locations are agreed upon by the Customer and the Company in advance of construction and are subject to final approval by the Company. Contact your BGE representative before any construction begins.

Failure to comply with the BGE Outdoor Metering Location Standard will prevent BGE from providing electric service to the requested service location.

Note: An acceptable meter location shall be free of any conditions detrimental to the metering equipment, and such location shall not create a hazard or inconvenience. The customer shall maintain at least three (3) feet of unobstructed space in front of the meter, and such space shall be free of any source of ignition or heat which may damage the meter or related equipment. The sole exception to the three (3) feet of unobstructed space in front of the meter is the use of bollards for protection from vehicular traffic where required; see Meter Protection Section of this manual.

The space provided for meters, regulators and service risers shall be clear of all obstructions, such as shutters, doors, and rainspouts, and the placement of obstructions such as concrete equipment pads, shrubbery, porches, patios, decks and gardens shall not interfere with the installation and servicing of the metering equipment or reading of the meter. Meters shall not normally be located over porches or patios.
The following excerpt is the “Location of Service Equipment” from the BGE Electric Service Tariff; Part 2, Section 6. This is provided for reference in outlining the BGE Outdoor Metering Location Standard.

**BGE Electric Service Tariff; Section 6**

**6. Location of Metering Equipment**

**6.1 Service at Secondary Distribution Systems Voltages**

**6.11 General**

Meter locations are agreed upon by the Customer and the Company, subject to final approval by the Company. Under normal conditions an outdoor location is required. These locations shall be free of any conditions detrimental to the metering equipment, and such equipment or its location shall not create a hazard or an inconvenience. Meters shall be so situated that there is not less than 3 feet of unobstructed space in front thereof. The Company may require that the Customer provide, at his expense, suitable meter protection equipment. In the event it becomes necessary to change the service entrance wiring or meter installation, the meter location shall conform with these rules.

**6.12 Outdoor Location**

An outdoor location is generally required for meter installations not exceeding six meters. Space shall be provided for meters clear of all obstructions such as shutters, doors and rainspouts, and so that the placement of shrubbery, flower beds and gardens will not interfere with installing, servicing or reading. Where, in the Company’s judgment, an outdoor location in the municipal duct area is impracticable, or where instrument current transformers for either an existing or a new installation are indoors, or where an outdoor location would result in metering equipment extending over a public right-of-way, an indoor location may be required. No meter is permitted on any pole owned by the Company or jointly used by it and another public utility. Where the location of a meter on a building is impracticable, it may be installed according to the provisions of Sec. 9.2121(b).

**Exceptions to the BGE Outdoor Metering Location Standard**

The BGE Electric Service Tariff allows for certain indoor locations:

Meter rooms with greater than 6 meters from a single service point are allowed.

**Exception Approval Requirements**

Any other request for indoor locations requires the BGE representative to obtain formal written approval from the COO, VP of Gas Operations and the VP of Electric Operations prior to construction.
105-3 Outside Meter Locations Requirements

All efforts should be made to utilize outside locations. When locating gas and electric meters outside, there are specific requirements that should be followed. Typically the meters are set at the location where the service terminates at the building being served.

Outside metering location must be used if one of the following conditions exists:

- Clear wall space is available: 24” W x 57” H (stacked meter configuration – wall mount electric meter socket). See Section 601-5.

OR

- Clear wall space is available: 36” W x 47” H (side by side meter configuration – pedestal electric meter socket). See Section 601-6.

OR

- There is adequate clear wall space to split the meters and install them separate from each other. The gas meter requires 15” W x 36” H and the electric meter requires 17” W x 57” H (200 Amp wall mount box) or 16” W x 47” H (200 Amp pedestal box) of clear wall space. See Section 601-7.

Standard service line extension to a residence shall extend not more than 75 feet for a single family home and 30 feet for a town house from the property line where the service enters the property to be served to the nearest corner of the building. Distances greater than these are non-standard and all additional costs will be borne by the customer/builder. For additional information, please consult with your BGE Representative. (Reference: BGE Electric Service Tariff, Section 8.23)
Note: The "front of the building" is defined by the portion of the building facing the utilities, which typically run along the street.

A. Authorized Residential Meter Installation Zones (New Construction)

**FRONT OF BUILDING**
(or direction of service lateral)

STREET
B. Building/Hazard Clearances (Meter Socket Locations)

Shown below are minimum clearances required by the Company for installations of a watt-hour meter without requiring the Customer to supply mechanical protection for it.

See beginning of the manual for meter protection requirements.

---

Clearance dimensions:

(A) Final grade to deck or overhang - 6’-3”

(B) Final grade to center of meter - Refer to Sections 200, 300 and 400.

(C) Top or bottom of steps to side/front of meter socket - 6’

(D) Side of any grounded object to side of meter socket - 18”

(E) Side of meter socket to side of window well or any opening - 18”

(F) 18” minimum unpaved to sidewalk

(G) 36” minimum to driveway (less than 36” requires traffic protection – See Section 412)

(H) Where one or more service cable is installed underneath a build-over, such as a deck, patio, or paving, a 4” PVC conduit extending a minimum of 2’ beyond the edge of the build-over, is required for the underground cables.

Note: Generally, a meter should not be installed under any first floor window and must have sufficient clearance from the side of windows to allow room for shutters. Metering equipment must not be installed on an unfinished wall.
C. Deck Installation Clearances (Meter Socket Locations)

Shown on the following pages are minimum clearances required by the Company when planning for deck installations around a watt-hour meter.

For this type of installation, consult the company.
(N1) A minimum clear working space of 36”W x 48”D shall be provided in front of the meter.

(N2) When a deck is built over or above the meter box, a minimum head room of 6’3” shall be maintained. (N1) and other clearances shown above still apply. Also, the space under the deck shall be easily accessible. Do not install any barrier, gate or any means that will prevent ready access to the meter box and cable connections.

(N3) A clear space of 36”W x 40”D shall be provided underground for service lateral. A clear path above ground shall be maintained for the service lateral.

* See beginning of the manual for meter protection requirements.

For this type of installation, consult the company.
Meter Socket Box

Note:

(N1) A minimum clear working space of 36"W x 48"D shall be provided in front of the meter.

(N2) When a deck is built over or above the meter box, a minimum head room of 6’3” shall be maintained. (N1) and other clearances shown above still apply. Also, the space under the deck shall be easily accessible. Do not install any barrier, gate or any means that will prevent ready access to the meter box and cable connections.

(N3) A clear space of 36"W x 26”-40”D shall be provided underground for service lateral. A clear path above ground shall be maintained for the service lateral.

* See beginning of the manual for meter protection requirements.
105-4 Residential Meters in a Flood Zone

Electric meter installations for new residential construction in areas defined as a flood zone by local, state, or federal authorities are required to meet the following criteria:

1. Elevation of Meter Equipment
   a. Electric meter sockets must be installed at a minimum of one (1) foot above the greater of the following two elevations:
      i. The base flood elevation (BFE), or
      ii. The design flood elevation (DFE), which is determined by the local authority having jurisdiction.
   b. The meter may be installed at the standard maximum height of 60 inches if it meets requirement 1a.

2. Meter Accessibility
   a. For outdoor electric meter installations that are higher than 60 inches, an elevated platform must be installed with a minimum of three (3) feet of clear space in front of the electric meter.
      i. A railing, gate and staircase must be provided on the platform (see Figure 1 below).
      ii. If an existing elevated platform, such as a porch or deck exists, the meter may be installed at a height not to exceed 60 inches beyond the platform and requirement 1 is met.

Note(s): (1) flood hazard areas with 1-percent chance of annual flood; flood zones include Zone A and Zone AE (Flood Zones | FEMA.gov); (2) requirement 1a is in alignment with ASCE (American Society of Civil Engineers) Standard 24-14, which is deemed by FEMA to meet or exceed the minimum National Flood Insurance Program (NFIP) requirements for buildings and structures (Highlights of ASCE 24 Flood Design Resistant and Construction | FEMA.gov); (3) BFE is the computed elevation to which flood water is anticipated to rise and shown on the Flood Insurance Rate Maps (FIRMs) or on the flood profiles (Floodplain Management | FEMA.gov).

Figure 105-2-1: construction setup for electric and gas meter installations in a flood zone
106 Electric Enclosures Protection

106-1 Protection Enclosures

Protection enclosures are required for new, outdoor metering installations that are:

A. Remote and unattended to the extent that an act of vandalism such as the breaking of meter glass would not likely be observed or detected most of the time by the customer, general public, or any responsible party. Examples of remote and unattended meter locations are those where service is provided at:
   a. Signboards
   b. Recreation areas
   c. Public parks
   d. Neighborhood/school ball fields
   e. Pumping stations
   f. Railroad crossing gates and signals
   g. Off-the-road installations for highway and highway sign lighting

B. Highly visible and the equipment installation constitute an attractive target for vandals. Examples of highly visible meter locations are those where service is provided at:
   a. Apartment, condominium, cooperative, or townhouse buildings with multiple meters (three or more) installed in an assembly or in a group close together on an outside wall.
   b. Roadside installations for highway and highway sign lighting.

C. Obscure: that is, not generally in the view of the customer or occupant, and where an act of vandalism would not likely be observed or detected most of the time by the customer, general public, or any responsible party. Examples of obscure meter locations are those where service is provided at:
   a. Shopping centers
   b. Fast food/convenience stores
   c. Business areas, generally, if subject to vandalism.

Meter protection enclosures are not required for the overwhelming majority of new installations. Also, it is not required for those new metering installations cited above which are screened from view of passersby and where the meter(s) is (are) located within a secured fenced or walled area, in a guarded property, or in an area not normally accessible to the public.

Design of Protecting Devices

The protecting enclosure shall be of sufficient size to cover the metering equipment. It shall be made of sheet metal (minimum of 12-gauge) with a full-sized hinged door and hasp to accommodate a Company lock.
106-2 Conditions for Applying the Guidelines

A. For new metering installations judged to be vulnerable to damage by vandals, the customer shall provide, at his expense, suitable meter protection equipment.

B. For existing metering installations that have suffered damage by vandals and where future protection is considered necessary, the Company shall bear the cost of adding suitable protecting devices.

C. The Meter Inspector - Meter & Installation shall make the judgment whether or not protection is required for each metering installation. The Supervisor - Meter & Installation shall be the arbiter of any disputes that may arise regarding the need for metering protection.

The enclosures can be provided by many contractors and are obtainable from various sheet metal fabricators. The customer’s architect or contractor should obtain the size of enclosure by contacting the responsible Distribution Department Designer who will coordinate with appropriate Meter Inspector - Meter Installation to determine the enclosure size. (For phone numbers, refer to Section 106-1). No meters shall be installed until the enclosures are in place.

106-3 Types of Enclosures

Applicable to Figures 1 and 2.
- Enclosures shall be minimum 12-gauge galvanized steel or equivalent.
- Back may be omitted on wall mounted enclosure and 1¼” mounting flange provided instead.
- Wall mounted enclosure may be used for overhead or underground supply; support mounted enclosure for underground only.
- Supports for support mounted enclosure shall be furnished and installed by customer and shall not be smaller than 2” galvanized conduit set in concrete.

Applicable to Figure 3.
- Pad-mounted enclosure on concrete base shall be used for underground supply.
- Enclosure shall be minimum 10-gauge galvanized steel or equivalent.

Applicable to Figures 1, 2 and 3.
- Enclosure shall be provided, installed, and maintained by customer.
- Customer is responsible for the enclosure and supports being structurally adequate.
- Customer shall provide ¾” exterior plywood equipment mounting board, except where mounting flange is provided.
- Weather tight construction is not required for enclosure sizes given in table.
- Drainage means shall be provided by the customer.
- Door edges shall be formed for telescopic fit with enclosure.
- The maximum single door width shall be 20”. The door opening shall be not less than the dimensions given in the table below.
- All doors shall be equipped with tamperproof hinges.
- A hasp for 2 locks shall be provided if customer equipment is enclosed (See Detail “A”). Otherwise, only a hasp for the Company lock is needed.
- Consult the Company for quantity, size, and spacing of supply conduits.
- Dimensions in the table provide space for one meter and socket, with line and load conductors entering bottom of socket. Dimensions shall be increased appropriately if customer equipment is enclosed. For multiple meters or multiple sets of service entrance wiring, consult the Company.
106-3 Types of Enclosures (continued)

<table>
<thead>
<tr>
<th>Max. conductor size, line side of meter</th>
<th>Total Ampacity, Customer Service Entrance Wiring</th>
<th>Class of Service</th>
<th>Inside dimension/Meter Equipment space (in inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 2</td>
<td>0-100</td>
<td>1Ø 3W</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3Ø 3W</td>
<td>18</td>
</tr>
<tr>
<td>4/0</td>
<td>0-100</td>
<td>3Ø 4W</td>
<td>18</td>
</tr>
<tr>
<td>4/0</td>
<td>101-200</td>
<td>1Ø 3W</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3Ø 3W</td>
<td>20</td>
</tr>
<tr>
<td>Over 4/0</td>
<td>Over 200</td>
<td>3Ø 4W</td>
<td>20</td>
</tr>
</tbody>
</table>

Consult the Company
## 107 Service Information
### 107-1 Where to call

<table>
<thead>
<tr>
<th>For inquiries, arrangements or Information pertaining to:</th>
<th>Residential, Commercial, &amp; Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td>New services - Gas or Electric</td>
<td>New Business and Customer Contact</td>
</tr>
<tr>
<td>Pending jobs or construction</td>
<td>410-637-8713 (7:00 AM - 4:30 PM)</td>
</tr>
<tr>
<td>Relocation of Company equipment</td>
<td>800-233-1854 (7:00 AM - 4:30 PM)</td>
</tr>
<tr>
<td>Removal of Company equipment</td>
<td>Fax  410-712-9323</td>
</tr>
<tr>
<td>Meter Locations</td>
<td>Baltimore Gas &amp; Electric Company</td>
</tr>
<tr>
<td>Certificates of Inspection</td>
<td>New Construction Services</td>
</tr>
<tr>
<td>Significant increases in load</td>
<td>1068 N. Front Street</td>
</tr>
<tr>
<td>Increase in service entrance size</td>
<td>Baltimore, Maryland 21202</td>
</tr>
<tr>
<td>Fault current Values</td>
<td></td>
</tr>
<tr>
<td>Voltage Problems</td>
<td></td>
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<tr>
<td>Planned Outages</td>
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<tr>
<td>Customer-owned metering equipment</td>
<td></td>
</tr>
<tr>
<td>Emergency service</td>
<td></td>
</tr>
<tr>
<td>Turn on, turn off meters</td>
<td>800-685-0123</td>
</tr>
<tr>
<td>Meter reading</td>
<td></td>
</tr>
<tr>
<td>Residential:</td>
<td></td>
</tr>
<tr>
<td>General Conservation Information</td>
<td>410-265-4000 or</td>
</tr>
<tr>
<td>Efficient utilization of energy</td>
<td>410-265-4100</td>
</tr>
<tr>
<td>Insulation</td>
<td></td>
</tr>
</tbody>
</table>
107-2 Map of Electric Meter Inspector Responsibilities

*M See 107-1 for other Company phone numbers. *See 701-4 for Gas M&I district info.
107-3 Map of Network Territory (Baltimore City)
107-4 Location of Underground Facilities

Call Miss Utility: 811, or 1-800-257-7777 (7:00 AM - 5:00 PM) 24 hr. service in case of emergency.

Call at least 48 hours before you dig, plant, drill, blast, or grade. A utility representative will mark underground facilities at your site free of charge.

Color codes appearing on wire flags or as spray painted stripes on the grass, sidewalk or street mark underground utility lines. Whether you're planning a large construction project or minor landscaping, call Miss Utility at 811 or 1-800-257-7777 before you dig and exercise caution where you see these codes:

![Apwa Uniform Color Code](image)
201 Underground Service

201-1 Terminus of Service
The terminus of the Company’s service is the point of attachment of the underground service cable at or within a building or at Company equipment. The Customer provides the service conductors beyond that point.

201-2 Trenching and Service Lateral Installation
For single phase residential installations, the Company shall trench for and install its service lateral. For commercial installations, the customer shall trench for and install duct on the line side of the meter.

201-3 Grading
The Customer must clear obstructions from and grade the property within six (6) inches of final grade before the Company will begin construction of its extension to meet the Customer’s service requirements.

201-4 Service Raceways in Municipal Duct Areas
A. Within public rights-of-way: The Company shall be consulted to determine who will furnish and install the raceway. The Customer may be required to install the raceway in concrete.
B. On private property: The Customer shall furnish and install the raceway.

Note: Under certain conditions where mechanical protection of a vertical cable rise is necessary, the Company will furnish and install a raceway of standard flexible metal conduit.

201-5 Service Raceways in Areas Other Than Those With Municipal Duct
A. Within public rights-of-way: The Company shall be consulted to determine who will furnish and install the raceway. If the customer is required to install a raceway from the manhole to the meter enclosure (e.g. Baltimore City), the raceway should connect directly to the meter enclosure.
B. On private property:
1. For an existing residence with meter(s) to be located outdoors, the Company will furnish and install the vertical raceway at the meter location. Under paved or other hard surface areas such as driveways, sidewalks, patios, concrete slabs or equipment pads, etc., the Customer shall furnish and install all Company-required raceways.
2. For an existing residence with meter(s) to be located indoors, the Customer shall furnish and install any raceway.
3. For a new residence, excluding multiple-occupancy buildings (see Note 1), with meter(s) to be located outdoors, the Company will furnish and install the vertical raceway at the meter location (including one ell). Under paved or other hard surface areas such as driveways, sidewalks, patios, concrete slabs or equipment pads, etc., the Customer shall furnish and install all Company-required raceways.
4. For a new residence, excluding multiple-occupancy buildings (see Note 1), with meter(s) to be located indoors, under paved or other hard surface areas such as driveways, sidewalks, patios, concrete slabs or equipment pads, etc., the Customer shall furnish and install all Company-required raceways. The Customer shall furnish and install the raceway from the point of building entrance to the terminus of service.
5. For new or existing commercial, industrial or multiple-occupancy building (see Note 1), with meter(s) to be located indoors or outdoors, the Customer shall furnish and install any raceway. Conduits shall extend 4” above floor line and shall be in square configuration (rather than linear) unless otherwise shown in detail.
Note 1: A multiple-occupancy building is a structure designed to contain four or more individual units.

Note 2: A meter enclosure/box shall NOT be entered through the back wall or top.

C. Required Number of Secondary Service Conduits (Consult the Company before installation)
   1. The duct system must be concrete encased if a vertical (or stacked) configuration is installed
   2. A maximum of 180 degrees of bend is allowed. Total bends exceeding 180 degrees require a splice or pull box.
   3. All bends must be concrete encased to prevent duct separation during cable installation.

Number of Ducts (Sized by Disconnect Nameplate Capacity (in Amps):

<table>
<thead>
<tr>
<th>Single Phase</th>
<th># of Ducts</th>
<th>Three Phase</th>
<th># of Ducts</th>
</tr>
</thead>
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<tr>
<td>0-200</td>
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<tr>
<td>201-400</td>
<td>3</td>
<td>201-400</td>
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</tr>
<tr>
<td>401-1200</td>
<td>6</td>
<td>401-600</td>
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<td>601-800</td>
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<td>801-1,000</td>
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<tr>
<td></td>
<td></td>
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<td>1,601-2,400</td>
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<td>8</td>
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<tr>
<td></td>
<td></td>
<td>3,001-4,000</td>
<td>12</td>
</tr>
</tbody>
</table>
D. Duct Bank Arrangement / Installation
202 Clearances from Sidewalk, Driveway, Grade, and Trench

Note:

If metering equipment is to be installed within 36” of an area subject to vehicular traffic (driveway, alley, roadway, etc.), the Customer will be required to provide protection for the equipment in the form of concrete filled bollard(s).

See Sections 201-4 and 201-5 for Raceway Installations.
See Sections 411 and 412 for Protection of Metering Installations

* Except meter pedestal.
203 Indoor Raceway Installations (For Town Houses Only)

See Section 600 for a summary of construction practices for gas and electric meter installations. See Sections 201-4 and 201-5 for additional details concerning raceway installations.

203-1 Basement Installation with LB Fitting

This configuration should be used when the electric meter will be installed indoors in a town house basement. To minimize the chance for water leakage, the conduit turns vertically, and transitions from an “LB” fitting, before penetrating the foundation wall (or band joist). For indoor installations on town houses, this is the preferred installation method.

Note: This installation requires 18” vertically from final grade to top edge of band joist as shown in diagram. If this requirement is not met, the installation detailed in 203-2 should be used.

![Diagram of 203-1 Basement Installation with LB Fitting]

Customer Furnishes and Installs:
1. 3” PVC LB fitting (Approved models: Cantex 5133670, Picoma ME986L or Carlon E986L). Bottom of edge of LB fitting must be above final grade.

   Note: If the length of unfused cable inside the house from wall penetration to meter enclosure will be greater than five (5) feet, disconnecting means (see Section 104-8) may be required outdoors. If so, it may be substituted for the LB fitting.

2. 3” PVC conduit (through-wall). Sleeve may be installed prior to concrete pouring or core-drilled for prefabricated wall.
3. 6” x 6” trough with screw-on lid (length is field to fit).
4. Nipple – minimum 2” diameter.
5. Meter enclosure (Company furnished – 200 amp model is BGE Mech# 13-582).

Company Furnishes and Installs:
(A) Heavy-duty underground splice box (BGE Mech #291-7). Top edge will be set to level of final grade.
(B) 3” PVC conduit and fittings from splice box to bottom of LB fitting. PVC conduit must be installed perpendicular to face of building and not on an angle.
203-2 Basement Installation without LB Fitting

This configuration should be used when the electric meter will be indoors in a town house basement and exterior wall space prohibits the use of an LB fitting. An example of such an installation would be a town house with a full front porch.

Note: If adequate clear wall space exists outdoors and the vertical distance from final grade to the top edge of the band joist will be 18” or greater, the installation detailed in Section 203-1 should be used.

Customer Furnishes and Installs:
(1) 3” PVC through-wall conduit, that extends a minimum of 60” beyond foundation, and coupling.
(2) 6” x 6” trough with screw-on lid (length is field to fit).
(3) Nipple – minimum 2” diameter.
(4) Meter enclosure (Company furnished – 200 amp model is BGE Mech# 13-582).

Company Furnishes and Installs:
(A) Heavy-duty underground splice box. Top edge will be set to level of final grade.
(B) 3” PVC conduit from splice box to through-wall conduit stub.
203-3 Garage Installation

This configuration should be used when the electric meter will be located indoors in a town house garage.

Customer Furnishes and Installs:

1. Meter enclosure (Company furnished – 200 amp model is BGE Mech# 13-582).
2. 2-½” PVC riser to meter enclosure.
3. 2-½” to 3” PVC reducer.
4. 3” PVC long sweep elbow.
5. 3” PVC conduit and couplings - including stub that extends a minimum of 60” beyond edge of footer.
6. Meter Traffic Protection (not shown) – 2-1/2” steel pipe filled with concrete (see Meter Protection Section)

Company Furnishes and Installs:

(A) Heavy-duty underground splice box. Top edge will be set to level of final grade.
(B) 3” PVC conduit and fitting from splice box to stub.

Notes:

(N1) Maintain 3” clearance on all sides of meter enclosure
[204] Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>208V/120</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 - One Set of Load Conductors</td>
</tr>
</tbody>
</table>

Service Conductors:
Line and Load Side of Meter Enclosure - 1 set, Max. 4/0

Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure, maximum 2½” PVC riser. Alternate meter enclosure is available which accepts 3” PVC riser. The alternate meter enclosure should be used in jurisdictions requiring a continuous 4” conduit run from manhole to meter enclosure - see Note (N2). Leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure.
2. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
(A) Meter enclosure (Customer may install). Standard meter enclosure BGE Mech # 13-582 (maximum 2½” knockout) [23”H x 11”W x 4-1/8”D] Alternate meter enclosure BGE Mech # 13-013 (maximum 3” knockout) [28¼”H x 13”W x 4-27/32”D]
(B) Watt-hour meter.
(C) Service lateral (not shown).

Notes:
1. Maintain 3” clearance on all sides of meter enclosure.
2. Where continuous run conduit is used, meter enclosure shall be installed by Customer.
3. A minimum clear space of 48” in front of all metering equipment is required. 18” minimum to walkway. 36” minimum to driveway.
### Single Outdoor Meter with Utility Disconnect

**277/480V Wye Services Only**

<table>
<thead>
<tr>
<th>Service</th>
<th>3Ø, 4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200</td>
</tr>
</tbody>
</table>

Indoor Location – **NON-STANDARD** – See Section 105-3. Consult Baltimore Gas and Electric Company.

#### Service Conductors:
- Line Side of Disconnect and Load Side of Meter Enclosure – 1 set, Max. 4/0

#### Customer Furnishes and Installs:
1. Service Entrance Wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
2. See Notes (N1), (N2) and (N3)

#### Company Furnishes and Installs:
- (A) Meter Enclosure/Utility Disconnect Enclosure.
- **Maintenance disconnects (left side of enclosure) will be locked for BGE exclusive use only.**
- Meter side (right side of enclosure) will be sealed.
- BGE Mech # 13-591 [28”H x 26”W x 4-27/32”D]
- (B) Watt-hour meter
- (C) Service lateral (not shown)
- (D) See Note (N2)

#### Notes:
1. Maintain 3” clearance on all sides of meter enclosure & disconnect enclosure.
2. Service raceway. See sections 201-4 and 201-5 for details.
3. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
A Company-approved meter pedestal is a recommended alternate to this installation (single phase only). See 401 for approved pedestals.

Service Conductors:
Line and Load Side of Meter Enclosure — 1 set, Max. 4/0

Customer Furnishes and Installs:
All material except. See Note (N2).
1. Two 2" hot dip galvanized conduit standards and install Company meter enclosure.
2. PVC conduit raceway (EPC 40) for line and load wiring. Ells should be a minimum 36" radius. See Note (N2).
3. Assembly must be installed in concrete as shown.
4. Service entrance wiring from load side of meter enclosure (Leave 30" of each conductor for connection inside meter enclosure).
5. 1-1/2" x 1-1/2" Kindorf for mounting enclosure boxes. Use non-corrosive mounting bolts.
6. See Notes (N1), (N2), and (N3)

Company Furnishes and Installs:
(A) Meter Enclosure (Customer shall install)
Standard meter enclosure BGE Mech # 13-582 (maximum 2½” knockout) [23"H x 11"W x 4-1/8"D]
Alternate meter enclosure BGE Mech # 13-013 (maximum 3” knockout) [28¼"H x 13"W x 4-27/32"D]
(B) Watt-hour meter.
(C) Service lateral.
(D) See Note (N1).

Notes:
(N1) Maintain 3” clearance on all sides of meter enclosure.
(N2) Service raceway. See Sections 201-4 and 201-5 for details.
(N3) A minimum clear space of 48” in front of all metering equipment is required.
18” minimum to walkway.
36” minimum to driveway.
<table>
<thead>
<tr>
<th>Service Conductor</th>
<th>1Ø, 3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 - One or Two Sets of Load Conductors</td>
</tr>
</tbody>
</table>

**Single Outdoor Meter Pedestal**

- **Service Conductors:**
  - Line Side of Meter Enclosure - 1 set, Max. 350 kcmil
  - Load Side of Meter Enclosure - 1 set, Max. 4/0

- **Customer Furnishes and Installs:**
  1. Service Entrance Wiring from load side of meter pedestal (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
  2. See Notes (N1) and (N2)

- **Company Furnishes and Installs:**
  1. Meter Enclosure: BGE Mech # 13-247 [62”H x 9-1/2”W x 4-1/8”D]
  2. Watt-hour meter.

**Notes:**
- (N1) 36” minimum clear work space.
- (N2) A minimum clear space of 48” in front of all metering equipment is required.
  18” minimum to walkway.
  36” minimum to driveway.
[208] Residential Only Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>10.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>400 (320A Continuous)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service Conductors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line and Load Side of Meter Enclosure - 1 set, Max. 350 kcmil</td>
</tr>
<tr>
<td>2 sets, Max. 4/0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Furnishes and Installs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Service Entrance Wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).</td>
</tr>
<tr>
<td>(2) See Notes (N1), (N2) and (N3).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Furnishes and Installs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Meter Enclosure (Customer may install). BGE Mech # 13-009 [30”H x 15”W x 4-27/32”D]</td>
</tr>
<tr>
<td>(B) Watt-hour meter.</td>
</tr>
<tr>
<td>(C) Service lateral (not shown).</td>
</tr>
<tr>
<td>(D) See Note (N2).</td>
</tr>
</tbody>
</table>

Notes:

(N1) Maintain 3” clearance on all sides of meter enclosure.

(N2) Service raceway. See Sections 201-4 and 201-5 for details.

(N3) A minimum clear space of 48” in front of all metering equipment is required.
<table>
<thead>
<tr>
<th>Minimum Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18” minimum to walkway.</td>
</tr>
<tr>
<td>36” minimum to driveway.</td>
</tr>
<tr>
<td>Service</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Max. Volts</td>
</tr>
<tr>
<td>Max. Amps</td>
</tr>
</tbody>
</table>

**Residential Only Single Outdoor Meter Pedestal**

**Service Conductors:**
- Line Side of Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Meter Enclosure - 2 sets, Max. 4/0
- 2 sets, Max. 1-4/0 and Max. 1-2/0

**Customer Furnishes and Installs:**
1. Service Entrance Wiring from load side of meter pedestal (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure). **Residential Only - 2 sets.**
2. See Notes (N1) and (N2)

**Company Furnishes and Installs:**
- (A) Meter Enclosure. BGE Mech # 13-250  [64”H x 13-1/4”W x 4-7/8”D]
- (B) Watt-hour meter.
- (C) Service lateral.

**Notes:**
- (N1) 36” minimum clear work space.
- (N2) A minimum clear space of 48” in front of all metering equipment is required.
  - 18” minimum to walkway.
  - 36” minimum to driveway.
Two Outdoor Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line Side of Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Meter Enclosure - 1 set, Max. 2/0 to each meter position

Customer Furnishes and Installs:
1. Service Entrance Wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
2. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
- Meter Enclosure (Customer may install).
  - Horizontal 2-Gang 150A Meter Enclosure BGE Mech # 13-165: [17½” H x 20-5/16” W x 4½”D]
  - Vertical 2-Gang 150A Meter Enclosure BGE Mech # 13-166: [27”H x 16”W x 4-27/32”D]
- Watt-hour meter.
- Service lateral (not shown).
- See Note (N2).

Notes:
- (N1) Maintain 3” clearance on all sides of meter enclosure.
- (N2) Service raceway. See Sections 201-4 and 201-5 for details.
- (N3) A minimum clear space of 48” in front of all metering equipment is required. 18” minimum to walkway, 36” minimum to driveway.
### [211] Two Outdoor Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>208Y/120</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

#### Service Conductors:
- Line Side of 2-Position Meter Enclosure - 1 set, Max. 500 kcmil
- Load Side of Each Meter Position - 1 set, Max. 4/0

#### Customer Furnishes and Installs:
1. Service Entrance Wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
2. See Notes (N1), (N2) and (N3).

#### Company Furnishes and Installs:
(A) 2-Position Meter Enclosure. (Customer may install).
  - Single Phase BGE Mech # 13-067  [30-1/8"W x 20"H x 4-27/32”D]
  - Three Phase BGE Mech # 13-122  [30-1/8"W x 19"H x 5½”D]
(B) Watt-hour meters.
(C) Service lateral (not shown).
(D) See Note (N2).

#### Notes:
1. Maintain 3” clearance on all sides of meter enclosure.
2. Service raceway. See Sections 201-4 and 201-5 for details.
3. A minimum clear space of 48” in front of all metering equipment is required.
4. 18” minimum to walkway.
5. 36” minimum to driveway.
[212] Three Outdoor Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line Side of 3-Position Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Each Meter Position - 1 set, Max. 2/0

Customer Furnishes and Installs:
1. Service Entrance Wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
2. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
- (A) 3-Position Meter Enclosure. (Customer may install).
  - Horizontal 3-Gang 150A Meter Enclosure BGE Mech # 13-181 [17½” H x 28½” W x 4½”D]
  - Vertical 3-Gang 150A Meter Enclosure BGE Mech # 13-182 [37½”H x 16”W x 4-27/32”D]
- (B) Watt-hour meters.
- (C) Service lateral (not shown).
- (D) See Note (N2).

Notes:
- (N1) Maintain 3” clearance on all sides of meter enclosure.
- (N2) Service raceway. See Sections 201-4 and 201-5 for details.
- (N3) A minimum clear space of 48” in front of all metering equipment is required.
  - 18” minimum to walkway.
  - 36” minimum to driveway.
[213] Freestanding Multiple Outdoor Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line Side of 2- or 3-Position Meter Enclosure — 1 set, Max. 350 kcmil
- Load Side of Each Meter Position — 1 set, Max. 2/0

Customer Furnishes and Installs:
1. 2” galvanized steel pipe.
2. 1-1/2" x 1-1/2" Kindorf channel for mounting enclosure boxes.
3. 3/8” galvanized or stainless steel bolts.
4. Supports – rigid and free from vibration, embedded in concrete, minimum of 24” deep and 8” square.
5. Rain-tight disconnecting means.
6. Service entrance wiring from load side of each meter position to disconnecting means (leave 24” of each conductor for connection inside meter enclosure).
7. Grounding electrode conductor – terminated in Customer’s equipment.
8. Feeder to Customer’s load.
9. See Notes (N1) and (N2).

Company Furnishes and Installs:
A. 2- or 3-Position Meter Enclosure (Customer may furnish and install Company-approved rain-tight stack or pedestal type meter equipment).
   - Horizontal 2-Gang 150A Meter Enclosure BGE Mech # 13-165 [17½” H x 20-5/16” W x 4½”D]
   - Horizontal 3-Gang 150A Meter Enclosure BGE Mech # 13-181 [17½” H x 28½” W x 4½”D]
B. Watt-hour meters.
C. Service lateral spliced for back-to-back enclosures.

Notes:
(N1) Service raceway. Ells should be a minimum of 36” radius. See Sections 201-4 and 201-5 for details.
(N2) A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
   - 10’ minimum to utility pole.
   - 5’ minimum to padmount transformer.
NOTE: Overhead wires shall not be attached to the same support on which meter is mounted

Service Conductors:
- Line Side of Meter Enclosure – 1 set, Max. 4/0
- Load Side of Meter Enclosure – 1 set, Max. 4/0

Customer Furnishes and Installs:
1. 6” x 6” or 3 – 2” x 6” pressure treated timber(s) set at right rear edge of transformer pad (as viewed from front).
2. Disconnecting means.
3. Service entrance wiring from load side of meter enclosure to disconnecting means (leave 24” of each conductor for connection inside meter enclosure).
4. 2” x 4” board at transformer knockout height.
5. Service entrance cable or conduit; if for 480Y/277 volts, it must be a complete conduit system, made of steel or Scheduled 40 PVC, from meter to transformer (leave 60” of each conductor for connection inside transformer).
6. Grounding electrode conductor connected to driven rod.
7. See Notes (N1) and (N2).

Company Furnishes and Installs:
(A) Meter Enclosure. (Customer may install).
(B) Watt-hour meter.
(C) Service entrance cable connector.
(D) Pad-Mounted Transformer.

Notes:
1. Overhead wires shall not be attached to same support on which meter is mounted.
2. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
3. Doubtful permanency good for 2 years maximum.
Multiple Meters
Customer’s Trough
(Indoor/Outdoor)

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø, 3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>100 or 200 Each Meter Enclosure - One Set of Load Conductors at Each Meter Enclosure</td>
</tr>
</tbody>
</table>

Consult Baltimore Gas and Electric Company.

Service Conduits:
- Line Side of Meters (in trough) - Governed by Size of Main
- Load Side of Disconnecting Means - Each Meter Enclosure – 1 set, Max. 4/0

Customer Furnishings and Installs:
1. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
2. Scalable wire trough, 14" x 14" minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. Consult Company for length of trough. Trough shall be installed below meter enclosures. See Section 416 for service entrance trough requirements.
3. Grounding electrode conductor.
4. Conductors from load side of each meter position and connectors as required (leave 30" of each conductor for connection inside each meter enclosure).
5. Individual disconnecting means durably and legibly marked with paint as to area served. See Sections 105-1.
6. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
7. Line conductors from trough to 200A meter enclosures. The customer is responsible for all wiring after landing block in trough.
8. See Notes (N1), (N2), (N3), (N4) and (N5).

Company Furnishings and Installs:
A. Meter enclosures (Customer may install) and miscellaneous materials to make connections.
   100A: BGE Mech #13-594 or 13-068 [10½"H x 8"W x 3-5/16"D]  
   200A: BGE Mech #13-582 [23"H x 11"W x 4-1/8"D]
B. Watt-hour meters.
C. Service lateral (not shown).
D. See Note (N2).

Notes:
(N1) 28” minimum, 60” maximum.
(N2) Service raceway. See Sections 201-4 and 201-5 for details.
(N3) Maintain 3” clearance on all sides of meter enclosure.
(N4) A minimum clear space of 48” in front of all metering equipment is required.
(N5) A minimum clearance of 36” shall be provided from the finished floor line to the bottom terminals of the main disconnect switch.
Service Conduits:
- Line Side of Meters (in trough) - Governed by Size of Main
- Load Side of Disconnecting Means Each Meter Enclosure - 1 set, Max. 4/0

Customer Furnishes and Installs:
1. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
2. Sealable wire trough, 14” x 14” minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. Consult Company for length of trough. Trough shall be installed below meter enclosures. See Section 416 for service entrance trough requirements.
3. Grounding electrode conductor.
4. Conductors from load side of meters and connectors as required (leave 30” of each conductor for connection inside each meter enclosure).
5. Individual disconnecting means durably and legibly marked with paint as to area served. See Sections 105-1.
6. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
7. Line conductors from trough to 200A meter enclosure. The customer is responsible for all wiring after landing block in trough.
8. See Notes (N1), (N2), (N3), (N4) and (N5).

Company Furnishes and Installs:
- Meter enclosures (Customer may install) and miscellaneous materials to make connections.
  - BGE Mech # 13-013 [28-1/4”H x 13”W x 4-27/32”D]
- Watt-hour meters.
- Service lateral (not shown).
- See Note (N2).

Notes:
1. 28” minimum, 60” maximum.
2. Service raceway. See Sections 201-4 and 201-5 for details.
3. Maintain 3” clearance on all sides of meter enclosure.
4. A minimum clear space of 48” in front of all metering equipment is required.
5. A minimum clearance of 36” shall be provided from the finished floor line to the bottom terminals of the main disconnect switch.
[217] Six or Fewer Indoor Meters
Company’s Horizontal 2 or 3
Position Meter Enclosures

<table>
<thead>
<tr>
<th>Service Conductors:</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Indoor Location - **NON-STANDARD** - See Section 105-3. Consult Baltimore Gas and Electric Company.

Service Conductors:
- Line Side of 3-Position Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Each Meter Position - 1 set, Max. 2/0

Customer Furnishes and Installs:
1. Sealable wire trough, 14” x 14” x 48” minimum size, with guide pin studs and handles. Service entrance conductors shall extend the full length of the wire trough. See Section 416 for service entrance trough requirements.
2. Grounding electrode conductor.
3. Load conductors in raceway or cable and connectors as required (leave 24” of each conductor for connection inside each meter enclosure).
4. Individual disconnecting means durably and legibly marked with paint as to area served. See Section Sections 105-1. Shall not be installed above enclosure box.
5. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps. Trough shall not be installed above meter enclosures.
6. Line conductors from trough to 200A meter enclosure. The customer is responsible for all wiring after landing block in trough.
7. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
(A) 2- or 3-Position meter enclosures (Customer may install) and miscellaneous materials to make connections.
   - Horizontal 2-Gang 150A Meter Enclosure BGE Mech # 13-165 [17½” H x 20-5/16” W x 4½”D]
   - Horizontal 3-Gang 150A Meter Enclosure BGE Mech # 13-181 [17½” H x 28½” W x 4½”D]
(B) Watt-hour meters.
(C) Service lateral (not shown).
(D) See Note (N2).

Notes:
1. Service raceway. See Sections 201-4 and 201-5 for details.
2. A minimum clear space of 48” in front of all metering equipment is required.
**Indoor Location – NON-STANDARD** – See Section 105-3. Consult Baltimore Gas and Electric Company.

**OPTION 1**

**OPTION 2**

**Service Conductors:**
- Line Side of Meters (in trough) – Governed by Size of Main
- Load Side of Disconnecting Means Each Meter Enclosure – 1 set, Max. 2/0

**Customer Furnishes and Installs:**
1. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
2. Sealable wire trough, 14” x 14” minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. Consult Company for length of trough. Trough shall be installed below meter enclosures. See Section 416 for service entrance trough requirements.
3. Grounding electrode conductor.
4. Conductors from load side of each meter position and connectors as required (leave 24” of each conductor for connection inside each meter enclosure).
5. Individual disconnecting means durably and legibly marked with paint as to area served. See Section 105-1.
6. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
7. Line conductors from trough to 200A meter enclosure. The customer is responsible for all wiring after landing block in trough.
8. See Notes (N1), (N2) and (N3).

**Company Furnishes and Installs:**
- **(A)** 2- or 3-position meter enclosures (Customer may install) and miscellaneous materials to make connections.
  - Vertical 2-Gang 150A Meter Enclosure BGE Mech # 13-166 [27”H x 16”W x 4-27/32”D]
  - Vertical 3-Gang 150A Meter Enclosure BGE Mech # 13-182 [37½”H x 16”W x 4-27/32”D]
- **(B)** Watt-hour meters.
- **(C)** Service lateral (not shown).
- **(D)** See Note (N1).

**Notes:**
- **(N1)** Service raceway. See Sections 201-4 and 201-5 for details.
- **(N2)** A minimum clear space of 48” in front of all metering equipment is required.
- **(N3)** Minimum clearance of 36” shall be provided from the finished floor line to the bottom terminals of the main disconnect switch.
- **(N4)** Maintain 3” clearance on all sides of meter enclosure.
Modular Meters Outdoor/Indoor Customer’s Equipment

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 Each Meter Position</td>
</tr>
<tr>
<td></td>
<td>(400A/320A continuous up to 240V)</td>
</tr>
</tbody>
</table>

Indoor Location - NON-STANDARD - See Section 105-3.
Not for use on the Company’s 240/120 delta (power wire) system. See Section 101-2
Consult Baltimore Gas and Electric Company.

Customer Furnishes and Installs:
1. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch equipped with sealable barriers which enclose all unmetered conductors/connections except the fuses.
2. Approved group metering equipment and is responsible for all maintenance. See Section 402 for listing of approved equipment.
3. Grounding electrode conductor.
4. Individual disconnecting device.
5. Durable, legible labeling (with paint) denoting area/unit(s) served by each meter and disconnecting device. Experience shows that failure to provide proper identification on multiple meter installations (area/unit(s) served; apartments, offices, or stores) often results in meters being installed that supply other than the area/unit(s) for which intended. Therefore, electric meters will not be installed on such installations until you have properly identified the area/unit(s) to be served; 1. meter enclosure and disconnecting device, 2. the sub-panel in the area/unit served. See Section 105-1.
6. A lever type bypass for each meter which supplies other than a residential occupancy.
7. A fifth jaw (potential terminal) on each meter enclosure supplying other than 1Ø, 3W, 120 volt metering. The fifth jaw shall be installed in the 9 o’clock position.
8. Service raceway for underground. See Sections 201-4 and 201-5.
9. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
(A) Watt-hour meters.
(B) Service lateral (not shown).

Notes:
(N1) Consult the Company for details regarding underground cable entry and termination.
(N2) Outdoor installations may require enclosures for mechanical protection, consult Company. See Sections 411 and 412 for details.
(N3) A minimum clear space of 48” in front of metering equipment is required. 18” minimum to walkway, 36” minimum to driveway.
Consult Baltimore Gas and Electric Company.
See Section 403 for C.T. Cabinet details.

Service Conductors:
Line and Load Side of C.T. Cabinet – Max. 1 set 500 kcmil

Customer Furnishes and Installs:
(1) C.T. Cabinet. See Section 403 for details.
(2) Three-sided trough, minimum 10” x 10”, with 1” flanges to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. If installed on a combustible surface, a sheet metal plate against the wall is required. The trough may be located at either left or right as shown.
(3) Minimum 10” x 10” trough secured and bonded to C.T. cabinet. Load wiring from C.T. cabinet may be out of top or bottom, near either end, but shall be on opposite end from supply wiring. See Section 416 for service entrance trough requirements.
(4) Load conductors – leave 36” of each conductor inside C.T. cabinet.
(5) See Notes (N1), (N2), (N3), and (N4).
(6) Concrete pad (4” thick) to provide insect/rodent barrier (outdoor only).
(7) Disconnecting means.
(8) 2” minimum galvanized steel pipe.
(9) 1-1/2” x 1-1/2” Kindorf channel.

Company Furnishes and Installs:
(A) Current transformer rated meter enclosure.
(B) Watt-hour meter.
(C) Current transformers (not shown).
(D) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.

Notes:
(N1) Service raceway. See Sections 201-4 and 201-5 for details.
(N2) A minimum clear space of 48” in front of C.T. Cabinet is required.
(N3) Space required for C.T. rated meter enclosure.
(N4) Minimum clear space of 6” on both sides of C.T. cabinet is required. If meter is to be installed adjacent to the C.T. Cabinet, see Note 3.
[221] Outdoor / Indoor Instrument Current Transformer (C.T. Meter)

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,3W; or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>2–1 - 1600</td>
</tr>
</tbody>
</table>


Service Conductors:
- Line and Load Side of C.T. Cabinet - Min. 2 sets 1/0
- Max. 5 sets 500 kcmil
- Max. 4 sets 600 kcmil

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 404 for details.
2. Three-sided trough, minimum 12” x 12”, with 1” flanges to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. If installed on a combustible surface, a sheet metal plate against the wall is required. The trough may be located at either left or right as shown. See Section 416 for service entrance trough requirements.
3. Minimum 12” x 12” trough secured and bonded to C.T. cabinet. Load wiring from C.T. cabinet may be out of top or bottom, near either end, but shall be on opposite end from supply wiring.
4. Load conductors - leave 60” of each conductor inside C.T. cabinet.
5. See Notes (N1), (N2), (N3), and (N4).
6. Holes in CT cabinet for line and load wires to be maximum 10” x 10”.
7. Concrete pad (4” thick) to provide insect/rodent barrier (outdoor only)
8. Disconnecting means.
9. 2” minimum galvanized steel pipe.
10. 1-1/2” x 1-1/2” Kindorf channel.

Company Furnishes and Installs:
(A) Current transformer rated meter enclosure.
(B) Watt-hour meter.
(C) Current transformers (not shown).
(D) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.

Notes:
(N1) Service raceway. See Sections 201-4 and 201-5 for details.
(N2) A minimum clear space of 48” in front of C.T. Cabinet is required.
(N3) Space required for C.T. rated meter enclosure.
(N4) Minimum clear space of 6” on both sides of C.T. cabinet is required. If meter is to be installed adjacent to the cabinet, see (N3).
[222] Outdoor / Indoor Instrument Current Transformer (C.T. Meter)  

<table>
<thead>
<tr>
<th>Service</th>
<th>3Ø,3W; or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>201 – 3000</td>
</tr>
</tbody>
</table>


Service Conduits:
- Line and Load Side of C.T. Cabinet - Max. 9 sets 500 kcmil
- Max. 8 sets 600 kcmil

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 405 for details.
2. Three-sided trough, with 1" flanges to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. If installed on a combustible surface, a sheet metal plate against the wall is required.
3. Minimum 12" x 12" trough secured and bonded to the top of the C.T. cabinet. Bus duct may be used in lieu of trough. See Section 416 for service entrance trough requirements.
4. Load conductors - leave 48” of each conductor inside C.T. cabinet.
5. Disconnecting means.
6. See Notes (N1), (N2), (N3), (N4) and (N5).
7. Cut out top and bottom 10” x 34” to mate with trough.
8. Concrete pad (4” thick) to provide insect/rodent barrier (outdoor only).

Company Furnishes and Installs:
- (A) Current transformer rated meter enclosure. (For alternate locations, consult the Company).
- (B) Watt-hour meter.
- (C) Current transformers (not shown).
- (D) Service lateral (not shown).
- (E) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.

Notes:
- (N1) Service raceway. See Sections 201-4 and 201-5 for details.
- (N2) Space required for C.T. rated meter enclosure.
- (N3) A minimum clear space of 48” in front of C.T. Cabinet is required.
- (N4) Minimum clear space of 6” on both sides of C.T. cabinet is required.
- (N5) Installation may be inverted for top feed to cabinet.
Consult Baltimore Gas and Electric Company.

**Service Conductors:**
- Line Side of Current Transformer - Max. 9 sets 500 kcmil
- Load Side of Current Transformer - Max. 9 sets 500 kcmil
  Max. 8 sets 600 kcmil

**Customer Furnishes and Installs:**
1. Three-sided trough effectively bonded (additional plate on wall required for installation against combustible surface), constructed of 14-gauge rust resistant steel and painted, or 10-gauge aluminum. All joints on trough must be welded. A weather-tight C.T. cabinet or a weather-tight enclosure for a Company-supplied C.T. cabinet may be used in lieu of this trough.
2. 1” flange on 3-sided trough.
5. Two handles, 4” from each side.
6. Rust-resistant fastening devices.
7. Conductors from load side of current transformer.
8. Concrete pad.
9. See Notes (N1), (N2), (N3) and (N4).

**Company Furnishes and Installs:**
- (A) Current transformer rated meter enclosure.
- (B) Watt-hour meter.
- (C) Current transformers (not shown).
- (D) Terminal blocks (not shown).

**Notes:**
- (N1) Service raceway. See Sections 201-4 and 201-5 for details. 90° elbows are required on bottom of compacted trench, turned up inside mechanical protection, 4” above pad.
- (N2) Meter enclosure may be set on either side. Where 1Ø and 3Ø meters are installed, arrange enclosures to be set between current transformer compartments, allowing space (18”) between the meter enclosures for totaliz–g - pulse accumulating time-of-use equipment.
- (N3) Space required for C.T. rated meter enclosure.
- (N4) A minimum clear space of 48” in front of C.T. cabinet is required.
### [224] Outdoor/Indoor Delta Service Self-Contained Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>120/240/240 Delta (U.G. Radial)</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200</td>
</tr>
</tbody>
</table>

**Indoor Location – NON-STANDARD –** See Section 105-3. Consult Baltimore Gas and Electric Company.

---

**Service Conductors:**
- Line Side of Meter Enclosure – Sized by the Company
- Load Side of Meter Enclosure – 1 Set, Max. 4/0

**Customer Furnishes and Installs:**
1. Conductors from load side of meter enclosure (leave 30” of each conductor for connection inside meter enclosure).
2. Disconnecting means
3. Wiring trough (sized per code). See Section 416 for service entrance trough requirements.
4. See Notes (N1), (N2) and (N3).

**Company Furnishes and Installs:**
1. Meter Enclosure.
   - 100A: BGE Mech #13-594 or 13-068 [10½”H x 8”W x 3-5/16”D]
   - 200A: BGE Mech # 13-582 [23”H x 11”W x 4-1/8”D]
2. Watt-hour meter.
3. Service lateral (not shown).
4. See Note (N2).

**Notes:**
1. Maintain 3” clearance on all sides of the meter enclosure.
2. Service raceway. See Sections 201-4 and 201-5 for details.
Outdoor/Indoor Delta Service Current Transformer (C.T. Meter)


Service Conductors:
- Line Side of C.T. Cabinet – Sized by the Company
- Load Side of C.T. Cabinet – Sized per local authority

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 404 for details.
2. Trough secured and bonded to C.T. cabinet. See Section 416 for service entrance trough requirements.
3. Load conductors - leave 60” of each conductor inside C.T. cabinet.
4. Disconnecting means.
5. See Notes (N1), (N2), (N3), and (N4).

Company Furnishes and Installs:
A. Current transformer rated meter enclosure.
B. Watt-hour meter.
C. Current transformers (not shown).
D. Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.
E. Service lateral.

Notes:
N1. Service raceway. See Sections 201-4 and 201-5 for details.
N2. A minimum clear space of 48” in front of C.T. Cabinet is required.
N4. Minimum clear space of 6” on both sides of C.T. cabinet is required. If meter is to be installed adjacent to the C.T. Cabinet, see (N3).
[226] Combination Self-Contained and Current Transformer (C.T.) Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>201 – 1200</td>
</tr>
</tbody>
</table>


**Service Conductors:**
- Line Side Conductors before landing block in trough — Sized by the Company
- Line Side Conductors after landing block in trough — Sized per local authority
- Load Side of C.T. Cabinet — Sized per local authority

**Customer Furnishes and Installs:**
- (1) C.T. Cabinet. See Section 404 for details.
- (2) 14” x 14” line side trough secured and bonded to C.T. cabinet. See Section 416 for service entrance trough requirements.
- (3) Load conductors – leave 60” of each conductor inside C.T. cabinet.
- (4) Disconnecting means.
- (5) Line conductors from landing blocks to CT cabinet.
- (6) Line conductors from trough to 200A meter socket. The customer is responsible for all wiring after landing block in trough.
- (7) See Notes (N1), (N2), (N3), and (N4).
- (8) 12” x 12” load side trough secured and bonded to C.T. cabinet.

**Company Furnishes and Installs:**
- (A) Current transformer rated meter enclosure.
- (B) Watt-hour meter.
- (C) Current transformers (not shown).
- (D) Self-contained meter enclosure (E) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.
- (F) Raceway between trough and self-contained meter enclosure (2” diameter minimum).
- (G) Service lateral (not shown).

**Notes:**
- (N1) Service raceway. See Sections 201-4 and 201-5 for details.
- (N2) A minimum clear space of 48” in front of C.T. Cabinet is required.
- (N3) Space required for C.T. rated meter enclosure.
- (N4) Minimum clear space of 6” on both sides of C.T. cabinet is required. If meter is to be installed adjacent to the cabinet, see (N3).
**[227] Outdoor C.T./Service Termination Cabinet**

<table>
<thead>
<tr>
<th>Service</th>
<th>3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>4000</td>
</tr>
</tbody>
</table>

- **Service Conductors:**
  - Line Side of C.T./Termination Cabinet - Max. 12 sets 500 kcmil
  - Load Side of C.T./Termination Cabinet - Sized per local authority

- **Customer Furnishes and Installs:**
  1. Outdoor C.T./service termination cabinet. See Section 413 for details.
  2. Raceway(s) to Customer equipment.
  3. 6"-6" L x 4'-0" W x 4" thick concrete pad (24” deep pit required for 8 or more conduits – Company end).
  4. Raceway between meter enclosure and cabinet.
  5. 1-1/2" x 1-1/2” Kindorf (galvanized) for meter enclosure mounting.
  6. Eight (8) foot ground rod (½" dia.) with #4 bar copper wire tied to ground lug on customer side of cabinet
  7. See Notes (N1) and (N2).

- **Company Furnishes and Installs:**
  2. Watt-hour meter.
  3. Current transformers (not shown).

- **Notes:**
  1. Service raceway from transformer. Conduit should extend 4” above pad or into bottom of pit. See Sections 201-4 and 201-5 for details.
  2. A minimum clear space of 48” in front of door on Company end of cabinet is required.

See 413 for C.T./Service Termination Cabinet details.
[228] Cellular Site Installation for Transmission Towers

Consult Baltimore Gas and Electric Company for this type of installation.

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W; 3Ø.4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>400A/320A continuous per position in Meter Stack at 240V Max.</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line Side Conductors – Sized by the Company
- Load Side Conductors – Sized per local authority

Customer Furnishes and Installs:
1. Approved three (3) position Modular Metering Equipment (see section 402)
2. Disconnecting means
3. 1-1/2” x 1-1/2” Kindorf channel.
4. Concrete footer 12” x 12” x 24” minimum
5. 2” minimum galvanized steel pipe
6. Galvanized Caps
7. See Notes (N1)

Company Furnishes and Installs:
1. Watt-hour meter
2. Service entrance cables (not shown)

Notes:
1. Service raceway. See Sections 201-4 and 201-5 for details.
[229] Cellular Site Installation for Communication Towers

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>3000A with CT Cabinet; 400A/320A continuous per position in Meter Stack at 240V Max.</td>
</tr>
</tbody>
</table>

Consult Baltimore Gas and Electric Company for this type of installation. See Section 402 for Modular Metering Equipment details. See Section 416 for Trough details.

Service Conductors:
- Line Side Conductors before landing block in trough - Sized by the Company
- Line Side Conductors after landing block in trough – Sized per local authority
- Load Side of C.T. Cabinet - Sized per local authority

Customer Furnishes and Installs:
1. Approved six (6) position Modular Metering Equipment (see Section 402) with main disconnecting means ahead of meters. Individual meter positions may be 200 or 400 amp (320 amp continuous).
2. PVC conduit(s) – maximum 4” diameter.
3. Minimum 14” x 14” trough secured and bonded to modular metering equipment and/or C.T. cabinet. Load wiring from C.T. cabinet may be out of top or bottom, near either end, but shall be on opposite end from supply wiring.
4. If required - C.T. Cabinet – for service requirements exceeding 400 amps (320 amps continuous). See Section 404 for details.
5. Load conductors - leave 60” of each conductor inside C.T. cabinet.
7. Holes in C.T. cabinet for line and load wires to be maximum 10” x 10”. (not shown)
8. Concrete footer 12” x 12” x 24” minimum.
9. 2” minimum galvanized steel pipe.
10. 1-1/2” x 1-1/2” Kindorf channel.
11. 4” minimum diameter of connector from trough to C.T. cabinet.
12. See Notes (N1), (N2), (N3), (N4) and (N5).

Company Furnishes and Installs:
- (A) Current transformer rated meter enclosure. (if required)
- (B) Watt-hour meters.
- (C) Current transformers and landing blocks in C.T. cabinet. (if required)
- (D) Raceway from C.T. Cabinet to transformer rated meter enclosure.
- (E) Landing blocks inside trough.

Notes:
- (N1) Service raceway. See Sections 201-4 and 201-5 for details.
- (N2) A minimum clear space of 48” in front of metering equipment is required.
- (N3) Space required for transformer rated meter enclosure.
- (N4) Minimum clear space of 6” on both sides of C.T. cabinet is required. If meter is to be installed adjacent to the cabinet, see (N3).
- (N5) Pipe or trough. Maximum of 2 conduits inside trough.
Rules for Expanding Existing Communication Tower Installations

A. No greater than six (6) main disconnects are allowed per supply (Reference 2017 NEC 225.33).
B. If less than six (6) main disconnects exist, and a new customer requests service, a metering position with main disconnect may be added to the existing trough. The new equipment may be mounted on the existing wood backboard or steel structure if space is available. The backboard or steel structure must be deemed safe by the Company. All existing meters, services and disconnects will be left in place.
C. If six (6) main disconnects exist and are serving active Customers OR the existing installation cannot be expanded the new Customer must:
   1. Install a 10’L x 14”W x 14”H trough adjacent to the existing trough mounted to galvanized steel pipe risers with Kindorf cross members as detailed in this section. The new trough must meet design requirements detailed in Section 416.
   2. Install meter stack with main disconnect and three (3) 200 amp meter positions (400 amp also allowed) on new trough.
   3. For existing installations with six (6) main disconnects, a minimum of one (1) meter/disconnect must be transferred from the existing installation to the new installation. The equipment vacated by the transferred customer will be made safe and abandoned in place. The new equipment and the transfer of the existing Customer (typically the Customer whose meter location is closest to the new trough installation) is the responsibility of the new Customer. See drawing below.
   4. If required by new Customer, install CT cabinet with main disconnect on trough for services exceeding 400 Amps. BGE will provide meter enclosure for CT cabinet. The Customer must also install a new meter stack to accommodate the transferred meters from the old trough. The drawing below illustrates this scenario. Note, meters #5 and 6 have been moved to the new meter stack to meet the six (6) main disconnect rule. Their original enclosures and switches will be abandoned in place.

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**Table: Cellular Site Installation for Communication Towers (Continued)**

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>100 - 3000</td>
</tr>
</tbody>
</table>
301 Overhead Service

301-1 Terminus of Service

The terminus of the Company’s service is the point of attachment of its service drop from which the Customer runs his service wiring.

301-2 Service Drop

A. Location:

The service drop and service entrance head shall be located so as to be out of reach from doors, windows, porches, etc. and, where practicable, out of the way of snow slides. The point of attachment of the service drop for adjoining buildings shall be located, where applicable, above the second-floor window and, where practicable, at the common property line so as to supply both buildings. Where there is no rear exit from the first-floor level and the basement floor is at ground level, the service drop may be located above the first-floor windows. Where the adjoining buildings have an open area between them not over 10 ft. wide, one of the buildings may be supplied by a sub-drop across the rear opening of the area.

Where decks, porches, awnings or other obstructions render the point of attachment to a building inaccessible by extension ladder for installation and maintenance, suitable provisions for attaching the drop at a location accessible by extension ladder and usually at the outer edge of the above-mentioned obstructions, shall be provided by the Customer.

The point of attachment shall be readily accessible to the Company at all times for installation and maintenance.

B. Support:

The support or supporting structure provided by the Customer for the point of attachment shall be sufficient to withstand the maximum pull for the required service drop.

Where a building is of insufficient height to provide the required clearance for the service drop, the Customer shall furnish and through-bolt to the building a service mast (support). See Section 307.

Where the service drop cannot be attached to a building or service mast or where there is no building to attach the service drop, the Customer shall furnish and erect an approved pole or structure to provide the required clearance for the service drop. See Section 308.

Note: No Customer’s wiring or equipment shall be located on poles owned by the Company or jointly used by the Company and another public utility.

Note: A meter enclosure/box shall NOT be entered through the back wall or top.
302 Clearances from Sidewalk, Driveway and Grade

Note:

If metering equipment is to be installed within 36” of an area subject to vehicular traffic (driveway, alley, roadway, etc.), the Customer will be required to provide protection for the equipment in the form of concrete filled bollard(s).

See Sections 411 and 412 for Protection of Metering Installations.
303 Service Drop Clearances for Residential and Commercial Properties

Notes:

(A) The height of the service loop attachment must be of sufficient height to provide the required loop clearances listed below. On two story semi-attached and row houses, the point of attachment must be above the second-floor windows. Where both single and three phase service loops are present, the clearance requirements must be maintained from the three-phase loop, which occupies the lower position.

(B) Lawns and walkways subject to pedestrian traffic only must maintain a minimum clearance of 12 ft.-6 in. (open wire) and 12 ft.-0 in. (multiplex).

(C) Over a readily accessible roof, open wire and multiplex loops must maintain a minimum clearance of 11 ft.-6 in. (open wire) and 11 ft.-0 in. (multiplex). Open wire loops must maintain a minimum vertical clearance of 10 ft.-6 in. over an inaccessible roof. Multiplex loops may have a clearance of 3 ft.-6 in. over an inaccessible roof.

A roof or balcony is considered readily accessible if it can be casually accessed through a doorway, ramp, window, stairway, or permanently mounted ladder. A permanently mounted ladder is not accessible if the bottom rung is 8 ft. or more above the ground or other permanently mounted surface. A roof or balcony is inaccessible if a person exerts extraordinary effort or employs tools to gain entry.

(D) Above residential driveways, a clearance of 16 ft.-6 in. (open wire) and 16 ft.-0 in. (multiplex) must be maintained. The clearance may be reduced to 12 ft.-6 in. (open wire) and 12 ft.-0 in. (multiplex) where the height of the building does not permit the loop to meet the initial open wire and multiplex requirement.

(E) Above streets, alleys, parking lots, etc., a clearance of 16 ft.-6 in. (open wire) and 16 ft-0 in. (multiplex) must be maintained.

(F) Wire holder (bracket) furnished and installed by company. The bottom of service head shall be higher than loop wire at building. Where it is necessary to place the house bracket or wire holders at an elevation above the customer’s service head, sufficient loop wire must be allowed to connect the customer’s service wires to the loop wires at a point between the service head and the bottom of the drip loop. Connectors on the covered wire must be taped.
Definitions:

**Accessible** – Roof can be casually accessed through a doorway, window, ramp, stairway, or permanently mounted ladder** by a person who neither exerts extraordinary physical effort nor employs tools or devices to gain entry. (NESC 234C3d1)

**A permanently mounted ladder is not considered a means of access if its bottom rung is 8 foot or more from the ground or other permanently installed accessible surface.**

**Inaccessible** – Roof can only be accessed using a piece of equipment (i.e. portable ladder or scaffolding) or through extraordinary effort.

**Walkable** – The roof has a slope less than 4" (rise) in 12" (run). (NEC 225.19A)

**Non Walkable** – The roof has a slope greater than 4" (rise) in 12" (run). (NEC 225.19A)

### Multiplex (all voltages)

<table>
<thead>
<tr>
<th>Accessible</th>
<th>Walkable (ft)</th>
<th>Non-walkable (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Inaccessible</td>
<td>8*</td>
<td>8*</td>
</tr>
</tbody>
</table>

### Open Wire (120/240V)

<table>
<thead>
<tr>
<th>Accessible</th>
<th>Walkable (ft)</th>
<th>Non-walkable (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Inaccessible</td>
<td>8*</td>
<td>3</td>
</tr>
</tbody>
</table>

### Open Wire (all remaining voltages)

<table>
<thead>
<tr>
<th>Accessible</th>
<th>Walkable (ft)</th>
<th>Non-walkable (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Inaccessible</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
303 Service Drop Clearances for Residential and Commercial Properties (cont.)

*Although no clearance is required, thought should be given to ladder accessibility.

Notes:
- A 3'-0” clearance must be maintained in any direction from windows, doors, porches, and fire escapes or similar locations. 120/240V single phase, 120/208V three phase, and 277/480V three phase multiplex loops are exempt from this requirement when installed above the top of window. For windows designed not to open, no minimum clearance is required.

All clearances apply to the service drop and service drip loop.

<table>
<thead>
<tr>
<th>Maintain Clearance</th>
<th>Multiplex (ft)</th>
<th>Open Wire (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above</td>
<td>no clearance required*</td>
<td>3</td>
</tr>
<tr>
<td>Below</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sides</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Although no clearance is required, thought should be given to ladder accessibility.
304 Swimming Pool Clearances

The National Electrical Code gives the following definitions and regulations concerning swimming pools.

Permanently Installed Swimming, Wading, and Therapeutic Pools: Those that are constructed in the ground, on the ground, or in a building in such a manner that the pool cannot be readily disassembled for storage, whether or not served by electrical circuits of any nature.

Storable Swimming or Wading Pool: Pool with a maximum dimension of 18 feet and a maximum wall height of 42 inches and so constructed that it may be readily disassembled for storage and reassembled to its original integrity.

The following parts of swimming and wading pools shall not be placed under existing service-drop conductors or any other open overhead wiring; nor shall such wiring be installed above the following:

1. Swimming and wading pools and the area extending 10 feet horizontally from the inside of the walls of the pool.
2. Diving structure.
3. Observation stands, towers, or platforms.

Exception No. 1:
Structures listed in (1), (2), and (3) above shall be permitted under utility-owned, -operated, and -maintained supply lines or service drops where such installations provide the following clearances:

---

### CLEARANCE OF SECONDARIES PASSING OVER OR NEAR SWIMMING POOLS

<table>
<thead>
<tr>
<th>Insulated communication conductors, messengers, neutral and triplex</th>
<th>Open wire bus and loops</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22'-6&quot;</td>
</tr>
<tr>
<td>B</td>
<td>14'-6&quot;</td>
</tr>
<tr>
<td>D</td>
<td>10'-0&quot;</td>
</tr>
<tr>
<td>V</td>
<td>Note (B)</td>
</tr>
<tr>
<td></td>
<td>23'-0&quot;</td>
</tr>
<tr>
<td></td>
<td>15'-0&quot;</td>
</tr>
<tr>
<td></td>
<td>23'-0&quot;</td>
</tr>
<tr>
<td></td>
<td>Note (B)</td>
</tr>
</tbody>
</table>

A = Vertical clearance over the water level, edge of the pool, or the anchored raft.
B = Vertical clearance over the diving platform or tower.
D = Horizontal clearance from the edge of the pool or base of the diving platform.
V = Vertical clearance over adjacent land.

Notes:

(A) Clearances from pools, which are fully enclosed by a solid or screened permanent structure, may be the same as those given for buildings.

(B) When the conductors are outside the area required by D, they shall be governed by the nature of the surface underneath the conductor. Refer to Section 303.
304 Swimming Pool Clearances (continued)

Therefore, current Company practices are:

A. Pools shall be clear of overhead conductors, and the installation of new pools under existing wiring is not permitted, except when it is not practicable to either:

1. Select another location for the pool.
2. Relocate or remove the existing wiring.
3. Relocate the point of attachment of the service drop.

Note: The electrical inspection authority having jurisdiction shall be contacted so that mutual agreement may be obtained regarding the question of impracticability.

B. The Company will not install any new overhead wiring above a swimming pool or in area extending 10 feet horizontally from the inside of the walls of the pool, as specified in the Code.

C. The Code is prospective, not retroactive; therefore, the replacement, renewal, or upgrading of existing service drops (loops) over or near a swimming pool is permitted, provided the clearances required in the utility exception are obtained. Triplex wire, without splices, shall be used in such replacements, renewals, or upgrading.

Relocation or modification to Company facilities occasioned by these rules is subject to BGE’s approval based on its Overhead Construction Standards.

Note: Primary conductors must not cross over swimming pools.
305 Length of Service Conductor at Service Head

<table>
<thead>
<tr>
<th>Size of Conductor</th>
<th>X Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>#8 to 1/0</td>
<td>24</td>
</tr>
<tr>
<td>2/0 to 4/0</td>
<td>36</td>
</tr>
<tr>
<td>250 kcmil to 500 kcmil</td>
<td>48</td>
</tr>
<tr>
<td>500 kcmil to 1000 kcmil</td>
<td>60</td>
</tr>
</tbody>
</table>
306 Clearances of Service Drops Over Roofs

600 Volts or Less - Service drop shall have a clearance of not less than 11’-6” from the highest point of roofs over which it passes, with the following exceptions:

EXCEPTION#1 300 VOLTS OR LESS

4" FALL IN 12" = APPROXIMATELY 18.5 DEGREES

EXCEPTION#2 300 VOLTS OR LESS

48" MAX. LENGTH OF SERVICE DROP ACROSS THE OVERHANG PORTION OF THE ROOF

THRU THE ROOF SERVICE RACEWAY

ANY ANGLE
307 Typical Service Mast Installations

Customer Furnishes and Installs:
1. Service entrance head.
2. Service mast. See table for size.
3. Neoprene collar and flash plate.
4. Service entrance conductors (leave 24” beyond service head).
5. Galvanized steel ring bolts (Blackburn type PS2-TB or equivalent pipe supports) (min. of 2) through wall.
6. Wood blocking.
7. See Note (N1) and (N2).

Company Furnishes and Installs:
A. Service drop deadends.
B. Service drop attachment (clamp type wire-holder).
C. Service connectors.
D. Service drop.

Notes:
(N1) Not less than X dimension. See table for service drop and service mast sizes.
(N2) No coupling allowed above lowest point of attachment, unless welded. No Kindorf or two (2) hole bands may be used to attach the mast to the wall.
(N3) Eaves dimension greater than 36”, consult company.
## 307 Typical Service Mast Installations (continued)

### Service Mast Size For Pipes

<table>
<thead>
<tr>
<th>Length Of Triplex Service Drop Not Exceeding</th>
<th>Size of Triplex Service Drop</th>
<th>Trade Sizes (Inside Diameter) of Galvanized Pipe or Galvanized Rigid Metal Conduit **</th>
</tr>
</thead>
<tbody>
<tr>
<td>60’</td>
<td>#2</td>
<td>2” 2” 2” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2” 2” 2½” 2½” 2½”</td>
</tr>
<tr>
<td>70’</td>
<td>#2</td>
<td>2” 2” 2” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2” 2½” 2½” 2½” 2½”</td>
</tr>
<tr>
<td>80’</td>
<td>#2</td>
<td>2” 2” 2½” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 2½” 2½” 2½”</td>
</tr>
<tr>
<td>90’</td>
<td>#2</td>
<td>2” 2” 2½” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 2½” 2½” 2½”</td>
</tr>
<tr>
<td>100’</td>
<td>#2</td>
<td>2” 2” 2½” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 2½” 2½” 3”</td>
</tr>
<tr>
<td>110’</td>
<td>#2</td>
<td>2½” 2½” 2½” 2½” 2½”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 2½” 2½” 3”</td>
</tr>
<tr>
<td>120’</td>
<td>#2</td>
<td>2½” 2½” 2½” 2½” 3”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 2½” 3” 3”</td>
</tr>
<tr>
<td>130’</td>
<td>#2</td>
<td>2½” 2½” 2½” 3” 3”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 2½” 3” 3” 3”</td>
</tr>
<tr>
<td>140’</td>
<td>#2</td>
<td>2½” 2½” 3” 3” 3”</td>
</tr>
<tr>
<td></td>
<td>3/0</td>
<td>2½” 3” 3” 3” 3”</td>
</tr>
</tbody>
</table>

* X is the distance between the highest point of attachment of the mast to the building and the point of attachment of the top service drop to the mast.

** Where both single-phase and three-phase service drops are necessary, increase the size of the mast as follows:

If both service drops are #2 triplex, increase the size listed for #2 triplex by ½“.

If one or both service drops are 3/0 triplex, increase the size listed for 3/0 triplex by 1”.

Note: Consult with Electric Distribution Engineering & Standards before using I-beams as service masts.
307 Typical Service Mast Installations (continued)

Deck Installations

Specific Notes:

(A) This clearance shall be governed by the nature of the surface underneath the conductor. Refer to Section 303.

General Notes:

(N1) All clearances are minimum values, and apply to the service drop and service drip loop.
(N2) A minimum of 3'-0" horizontal clearances from decks and similar structures is preferred to allow space for ladder access to the ground.
(N3) Area for loop wire attachment at building must be accessible, from the ground, by extension ladder.
(N4) If the loop is less than 3'-0" horizontally from the outer edge of the deck, a minimum 10'-0" distance shall be maintained from the deck floor to the service drip loop.
(N5) Either horizontal or vertical clearance must be met.
(N6) The service mast shall be continuous 6" x 6" timber and be sufficient length to maintain minimum height requirements, and extend to the ground, not to exceed 10' below the deck surface.
(N7) The service mast shall be secured to the base pillar by no fewer than two ½" through bolts beginning within 6”-12” of the base of the deck.
(N8) Individual through bolts shall be spaced with a minimum of 12” vertical separation.
(N9) For service masts which are secured to base pillars not embedded in concrete, please contact a BGE meter inspector to ensure all structural requirements are met.

As field conditions may not be exactly as shown, if you have any concerns or questions, contact BGE prior to any installation of new equipment. Should you encounter any problems, contact BGE New Business Planning or the Meter Inspector for your District (Refer to Section 106).
Specific Notes:

(A) This vertical clearance shall be governed by the nature of the surface underneath the conductor. Refer to Section 303.

General Notes:

(N1) All clearances are minimum values, and apply to the service drop and service drip loop.
(N2) A minimum of 3'-0" horizontal clearance from decks and similar structures is preferred to allow space for ladder access to the ground.
(N3) Area for loop wire attachment at building must be accessible, from the ground, by extension ladder.
(N4) If the loop is less than 3'-0" horizontally from the outer edge of the deck, a minimum 10'-0" distance shall be maintained from the deck floor to the service drip loop.
(N5) Either horizontal or vertical clearance must always be met.
(N6) The service masts shall be continuous 6" x 6" timber and be sufficient length to maintain minimum height requirements.
(N7) For a two story deck, the vertical clearances above and below the deck must continue to be met.
(N8) On two story semi-attached and row houses, the point of attachment must be above the second floor windows.

As field conditions may not be exactly as shown, if you have any concerns or questions, contact BGE prior to any installation of new equipment. Should you encounter any problems, contact BGE New Business Planning or the Meter Inspector for your District (Refer to Section 106).
308 Typical Layout of Service Entrance Wiring on a Customer’s Pole

Consult Baltimore Gas and Electric Company.

Service Conductors:
   Line Side of Meter Enclosure - 1 set, Max. 4/0
   Load Side of Meter Enclosure - 1 set, Max. 4/0

Customer Furnishes and Installs:
   (1) Treated Class 7 pole, properly guyed, or a treated Class 4 pole, unguyed, in well-tamped earth. See dimensions below.
   (2) Service entrance head (shall be located above the service drop).
   (3) Service entrance wiring - line side of meter enclosure.
   (4) Service entrance wiring - load side of meter enclosure.

Company Furnishes and Installs:
   (A) Wireholder.
   (B) Service drop.
   (C) Watt-hour meter.
   (D) Meter enclosure (Customer may install).
   (E) Service connectors.

Notes:
   (N1) Between these points, all wiring shall be covered with Schedule 40 PVC conduit, or other approved shields.

<table>
<thead>
<tr>
<th>Pole Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diameter</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Length</th>
<th>Top of Pole</th>
<th>6’ from Butt</th>
<th>Setting Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30’</td>
<td>6.7”</td>
<td>9.5”</td>
<td>5.0’</td>
</tr>
<tr>
<td></td>
<td>35’</td>
<td>6.7”</td>
<td>10.2”</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>40’</td>
<td>6.7”</td>
<td>10.8”</td>
<td>6.0’</td>
</tr>
<tr>
<td></td>
<td>45’</td>
<td>6.7”</td>
<td>11.5”</td>
<td>6.5’</td>
</tr>
<tr>
<td>7</td>
<td>25’</td>
<td>4.7”</td>
<td>6.9”</td>
<td>5.0’</td>
</tr>
<tr>
<td></td>
<td>30’</td>
<td>4.7”</td>
<td>7.6”</td>
<td>5.0’</td>
</tr>
<tr>
<td></td>
<td>35’</td>
<td>4.7”</td>
<td>8.0”</td>
<td>5.5’</td>
</tr>
<tr>
<td></td>
<td>40’</td>
<td>4.7”</td>
<td>8.5”</td>
<td>6.0’</td>
</tr>
<tr>
<td></td>
<td>45’</td>
<td>4.7”</td>
<td>9.0”</td>
<td>6.5’</td>
</tr>
</tbody>
</table>

Service: 1Ø,3W or 3Ø,3W
[309] Single Outdoor Meter

| Max. Volts | 240 |
| Max. Amps | 100 - One Set of Load Conductors |

Service Conductors:
- Line and Load Side of Meter Enclosure — 1 set, Max. #2

Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure.
2. Service entrance wiring from load side of meter enclosure (leave 12” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
3. See Notes (N1) and (N2).

Company Furnishes and Installs:
(A) Meter Enclosure (Customer may install).
- BGE Mech # 13-068 [10½”H x 8”W x 3-5/16”D]
(B) Watt-hour meter.

Notes:
(N1) Maintain 3” clearance on all sides of the meter enclosure.
(N2) A minimum clear space of 48” in front of all metering equipment is required.
- 18” minimum to walkway.
- 36” minimum to driveway.
### [310-1] Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 - One Set of Load Conductors</td>
</tr>
</tbody>
</table>

#### Service Conductors:
- Line and Load Side of Meter Enclosure — 1 set, Max. 4/0

#### Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure.
2. Service entrance wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
3. See Notes (N1) and (N2).

#### Company Furnishes and Installs:
1. Meter Enclosure (Customer may install).
   - Single Phase BGE Mech # 13-582 (maximum 2½” knockout) [23”H x 11”W x 4-1/8”D]
   - Three Phase BGE Mech # 13-013 (maximum 3” knockout) [28¼”H x 13”W x 4-27/32”D]
2. Watt-hour meter.

#### Notes:
1. Maintain 3” clearance on all sides of the meter enclosure.
2. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
[310-2] Single Outdoor Meter with Utility Disconnect 277/480V Wye Services Only

Indoor Location - **NON-STANDARD** - See Section 105-3. Consult Baltimore Gas and Electric Company.

Service Conductors:
- Line Side of Disconnect and Load Side of Meter Enclosure - 1 set, Max. 4/0

Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure.
2. Service entrance wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
3. See Notes (N1) and (N2).

Company Furnishes and Installs:
- (A) Meter Enclosure/Utility Disconnect Enclosure. Maintenance disconnect (left side of enclosure) will be locked for BGE exclusive use only. Meter side (right side of enclosure) will be sealed.
- BGE Mech # 13-591 [28”H x 26”W x 4-27/32”D]
- (B) Watt-hour meter

Notes:
- (N1) Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
- (N2) A minimum clear space of 48” in front of all metering equipment is required.
  - 18” minimum to walkway.
  - 36” minimum to driveway.
[311] Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 - One or Two Sets of Load Conductors</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line and Load Side of Meter Enclosure - 1 set, Max. 250 kcmil

Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure, maximum 2½” conduit. Alternate meter enclosure is available which accepts 3” conduit. See Note (N1).
2. Service entrance wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 30” of each conductor for connection inside meter enclosure).
3. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
(A) Meter Enclosure (Customer may install).
- Standard meter enclosure BGE Mech # 13-582 (maximum 2½” knockout) [23”H x 11”W x 4-1/8”D]
- Alternate meter enclosure BGE Mech # 13-013 (maximum 3” knockout) [28¼”H x 13”W x 4-27/32”D]
(B) Watt-hour meter.

Notes:
1. Where conduit is used, meter enclosure shall be installed by Customer.
2. Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
3. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
## [312] Residential Only Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>400 (320A Continuous)</td>
</tr>
</tbody>
</table>

### Service Conductors:
- **Line and Load Side of Meter Enclosure** - 1 set, Max. 500 kcmil
- 2 sets, Max. 4/0

### Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure, maximum 3” conduit - see Note (N1).
2. Service entrance wiring from load side of meter enclosure (leave 18” minimum length to point of entry through wall and 36” of each conductor for connection inside meter enclosure).
3. See Notes (N1), (N2) and (N3).

### Company Furnishes and Installs:
(A) Meter Enclosure (Customer may install).
   - BGE Mech # 13-009 [30”H x 15”W x 4-27/32”D]
(B) Watt-hour meter.

### Notes:
1. Where conduit is used, meter enclosure shall be installed by Customer.
2. Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
3. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
[313] Two Outdoor Meters

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W or 3Ø.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Service Conductors:
- Line Side of 2-Position Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Each Meter Position - 1 set, Max. 2/0

Customer Furnishes and Installs:
1. Service entrance wiring - line side of meter enclosure, maximum 2½” conduit - see Note (N1).
2. Service entrance wiring from load side of each meter position (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
3. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
A. 2-Position Meter Enclosure (Customer may install).
   - Horizontal 2-Gang 150A Meter enclosure BGE Mech #13-165 [17½” H x 20-5/16” W x 4½”D]
   - Vertical 2-Gang 150A Meter enclosure BGE Mech #13-166 [27”H x 16”W x 4-27/32”D]
B. Watt-hour meters.

Notes:
1. Where conduit is used, 2-position meter enclosure shall be installed by Customer.
2. Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
3. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
**[314] Two Outdoor Meters**

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W or 3Ø.4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

**Service Conductors:**
- Line Side of 2-Position Meter Enclosure - 1 set, Max. 500 kcmil
  - 2 sets, Max. 4/0
- Load Side of Each Meter Position - 1 set, Max. 4/0

**Customer Furnishes and Installs:**
1. Service entrance wiring - line side of meter enclosure, maximum 4” conduit - see Note (N1).
2. Service entrance wiring from load side of each meter position (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
3. See Notes (N1), (N2) and (N3).

**Company Furnishes and Installs:**
1. 2-Position Meter Enclosure (Customer may install).
   - Single Phase BGE Mech # 13-067 [30-1/8”W x 20”H x 4-27/32”D]
   - Three Phase BGE Mech # 13-122 [30-1/8”W x 19”H x 5½”D]
2. Watt-hour meters.

**Notes:**
- (N1) Where conduit is used, 2-position meter enclosure shall be installed by Customer.
- (N2) Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
- (N3) A minimum clear space of 48” in front of all metering equipment is required.
  - 18” minimum to walkway.
  - 36” minimum to driveway.

| Service | 1Ø.3W or 3Ø.3W |
**[315] Three Outdoor Meters**

<table>
<thead>
<tr>
<th>Max. Volts</th>
<th>240</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

**Service Conductors:**
- Line Side of 3-Position Meter Enclosure — 1 set, Max. 350 kcmil
- Load Side of Each Meter Position — 1 set, Max. 2/0

**Customer Furnishes and Installs:**
1. Service entrance wiring - line side of meter enclosure, maximum 2½” conduit - see Note (N1).
2. Service entrance wiring from load side of each meter position (leave 18” minimum length to point of entry through wall and 24” of each conductor for connection inside meter enclosure).
3. See Notes (N1), (N2) and (N3).

**Company Furnishes and Installs:**
(A) 3-Position Meter Enclosure (Customer may install).
   - Horizontal 3-Gang 150A Meter Enclosure BGE Mech # 13-181 [17½” H x 28½” W x 4½”D]
   - Vertical 3-Gang 150A Meter Enclosure BGE Mech # 13-182 [37½”H x 16”W x 4-27/32”D]
(B) Watt-hour meters.

**Notes:**
1. Where conduit is used, 3-position meter enclosure shall be installed by Customer.
2. Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
3. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
### [316] Doubtful Permanency (Max. 2 years) Service Single Outdoor Meter

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 - One Set of Load Conductors</td>
</tr>
</tbody>
</table>

#### Service Conductors:
- Line and Load Side of Meter Enclosure - 1 set, Max. 4/0

#### Customer Furnishes and Installs:
1. 6" x 6" timber or three 2" x 6" boards spiked together (no splices), to be set in well-tamped earth at a minimum depth of 4' and to be located at a distance not exceeding 140' from Company pole. All lumber shall be sound.
   - **NOTE:** If you are using a pole, see table in Section 308 for specifications.
2. 2" x 4" wood braces (no splices). If the service drop exceeds 100', a ¼" steel wire back-guy is also required.
3. 2" x 4" x 36" wood stakes.
4. Disconnecting means.
5. Grounding electrode conductor.
7. See Notes (N1), (N2), (N3), (N4) and (N5).

#### Company Furnishes and Installs:
- (A) Meter Enclosure.
- (B) Watt-hour meter
- (C) Wireholder.
- (D) Service drop.

#### Notes:
- (N1) Service drop must run in angle between wood braces.
- (N2) Guy wire — two wraps around timber or thru-bolted to timber.
- (N3) Clamps or grips and guy anchor.
- (N4) Minimum of four 16-penny nails in each joint.
- (N5) A minimum clear space of 48" in front of all metering equipment is required. (18” minimum to walkway, 36” minimum to driveway).
[317] Multiple Indoor Meters
Customer’s Trough

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,3W; or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 Each Meter Enclosure - One Set of Load Conductors at Each Meter Enclosure</td>
</tr>
</tbody>
</table>

Consult Baltimore Gas and Electric Company.

![Diagram of service conductors and meter enclosures]

Service Conductors:
- Line Side of Meters (in trough) — Determined by Size of Main
- Load Side of Disconnecting Means Each Meter Enclosure — 1 set, Max. 4/0

Customer Furnishes and Installs:
1. Service entrance wiring.
2. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
3. Sealable wire trough, 14” x 14” minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. Consult Company for length of trough. Trough shall be installed below meter enclosures.
4. Grounding electrode conductor.
5. Conductors from load side of meters and connectors as required (leave 30” of each conductor for connection inside each meter enclosure).
6. Individual disconnecting means durably and legibly marked with paint as to area served. See Section 105-1.
7. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
8. Line conductors from trough to 200A meter enclosures. The customer is responsible for all wiring after landing block in trough.
9. See Notes (N1), (N2) and (N3).

Company Furnishes and Installs:
(A) Meter enclosures (Customer may install) and miscellaneous materials to make connections.
   BGE Mech # 13-013  [28¾”H x 13”W x 4-27/32”D]
(B) Watt-hour meters.

Notes:
(N1) 28” minimum, 60” maximum.
(N2) Maintain 3” clearance on all sides of meter enclosure and 12” clearance for service entrance.
(N3) A minimum clear space of 48” in front of all metering equipment is required.
Six or Fewer Indoor Meters - Eight or Fewer Indoor Meters
Company’s Horizontal; 2 or 3 Position Meter Enclosures

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø.3W or 3Ø.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Indoor Location - NON-STANDARD - See Section 105-3. Consult Baltimore Gas and Electric Company.

Service Conductors:
- Line Side of 3-Position Meter Enclosure - 1 set, Max. 350 kcmil
- Load Side of Each Meter Position - 1 set, Max. 2/0

Customer Furnishes and Installs:
1. Service entrance wiring.
2. Sealable wire trough, 14” x 14” x 48” minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. Trough shall not be installed above meter enclosures.
3. Grounding electrode conductor.
4. Load conductors in raceway or cable and connectors as required (leave 24” of each conductor for connection inside each meter enclosure).
5. Individual disconnecting means durably and legibly marked with paint as to area served. See Section 105-1. Shall not be installed above enclosure box.
6. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
7. Line conductors from trough to 200A meter enclosures. The customer is responsible for all wiring after landing block in trough.
8. See Note (N1).

Company Furnishes and Installs:
- (A) 2- or 3-Position meter enclosures (Customer may install) and miscellaneous materials to make connections.
  - Horizontal 2-Gang 150A Meter Enclosure BGE Mech # 13-165 [17½” H x 20-5/16” W x 4½”D]
  - Horizontal 3-Gang 150A Meter Enclosure BGE Mech # 13-181 [17½” H x 28½” W x 4½”D]
- (B) Watt-hour meters.

Notes:
- (N1) A minimum clear space of 48” in front of all metering equipment is required.
### [319] Multiple Indoor Meters

**Company’s Vertical 2 or 3 Position Meter Enclosures**

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W or 3Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>150 Each Meter Position - One Set of Load Conductors at Each Meter Position</td>
</tr>
</tbody>
</table>

Indoor Location - **NON-STANDARD** - See Section 105-3. Consult Baltimore Gas and Electric Company.

---

#### Service Conductors:
- Line Side of Meters (in trough) — Governed by Size of Main
- Load Side of Disconnecting Means Each Meter Enclosure — 1 set, Max. 2/0

#### Customer Furnishes and Installs:
1. Service entrance wiring.
2. When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
3. Sealable wire trough, 14” x 14” minimum size, with guide pin studs and handles. Conductors from load terminals of main disconnecting means shall extend the full length of the wire trough. **Consult Company for length of trough.** Trough shall be installed below meter enclosures.
4. Grounding electrode conductor.
5. Conductors from load side of each meter position and connectors as required (leave 24” of each conductor for connection inside each meter enclosure).
6. Individual disconnecting means durably and legislatively marked with paint as to area served. See Section 105-1.
7. Company-approved terminal blocks, when the total capacity of one or more main disconnecting means exceeds 1000 amps.
8. Line conductors from trough to 200A meter enclosures. The customer is responsible for all wiring after landing block in trough.
9. See Note (N1).

#### Company Furnishes and Installs:
- **(A)** 2- or 3-position meter enclosures (Customer may install) and miscellaneous materials to make connections.
  - Vertical 2-Gang 150A Meter Enclosure BGE Mech # 13-166  [27”H x 16”W x 4-27/32”D]
  - Vertical 3-Gang 150A Meter Enclosure BGE Mech # 13-182  [37½”H x 16”W x 4-27/32”D]
- **(B)** Watt-hour meters.

#### Notes:
- (N1) A minimum clear space of 48” in front of all metering equipment is required.
- (N2) Maintain 3” clearance on all sides of meter enclosure.
[320] Modular Meters Outdoor Indoor Customer’s Equipment

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200 Each Meter Position (400A/320A continuous up to 240V)</td>
</tr>
</tbody>
</table>

Not for use on Company’s 240/120 delta (power wire) system. See Section 101-2.

Indoor Location - **NON-STANDARD** - See Section 105-3.
Consult Baltimore Gas and Electric Company.

Customer Furnishes and Installs:
(1) When required by inspection authority having jurisdiction, main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
(2) Approved group metering equipment and is responsible for all maintenance. See Section 402 for listing of approved equipment.
(3) Grounding electrode conductor.
(4) Individual disconnecting device.
(5) Durable, legible labeling (with paint) denoting area/unit(s) served by each meter and disconnecting device.
Experience shows that failure to provide proper identification on multiple meter installations (area/unit(s) served: apartments, offices, or stores) often results in meters being installed that supply other than the area/unit(s) for which intended. Therefore, electric meters will not be installed on such installations until you have properly identified the area/unit(s) to be served; 1. meter enclosure and disconnecting device, 2. the sub-panel in the area/unit served. See Section 105-1.
(6) A lever type bypass for each meter which supplies other than a residential occupancy.
(7) The Company requires a fifth jaw, installed and wired at the 9 o’clock position, on each enclosure with 1Ø, 3W Network metering (120/208V).
(8) Service entrance wiring.
(9) See Notes (N1), and (N2).

Company Furnishes and Installs:
(A) Watt-hour meters.

Notes:
(N1) Outdoor installations may require enclosures for mechanical protection, consult Company. See Section 411.
(N2) A minimum clear space of 48” in front of mounting surface is required.
18” minimum to walkway, 36” minimum to driveway.

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>201 - 400</td>
</tr>
</tbody>
</table>

Indoor Location - NON-STANDARD - See Section 105-3. Consult Baltimore Gas and Electric Company. See Section 403 for CT Cabinet details.

Service Conductor:
Line and Load Side of C.T. Cabinet — Max. 1 set 500 kcmil

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 403 for details.
2. Service entrance wiring — trough, minimum 10” x 10”, to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. The trough may be located at either left or right as shown.
3. Minimum 10” x 10” trough secured and bonded to C.T. cabinet. Load wiring from C.T. cabinet may be out of top or bottom, near either end, but shall be on opposite end from supply wiring.
4. Load conductors - leave 36” of each conductor inside C.T. cabinet.
5. See Notes (N1), (N2), and (N3).

Company Furnishes and Installs:
A. Current transformer rated meter enclosure.
B. Watt-hour meter.
C. Current transformers (not shown).
D. Raceway between C.T. cabinet and meter enclosure (Not more than 3”. For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.)

Notes:
2. A minimum clear space of 48” in front of C.T. Cabinet is required.
3. Minimum clear space of 6” on both sides of CT cabinet is required. If meter is to be installed adjacent to the C.T. Cabinet, see (N1).

<table>
<thead>
<tr>
<th>Service</th>
<th>1Ø,3W; 3Ø,3W; or 3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>480Y/277</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>201 - 1600</td>
</tr>
</tbody>
</table>

Indoor Location - **NON-STANDARD** - See Section 105-3

See Section 404 for C.T. Cabinet details

Consult the Baltimore Gas and Electric Company.

Service Conduits:
- Line and Load Side of C.T. Cabinet - Max. 5 sets 500 kcmil
- Max. 4 sets 600 kcmil

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 404 for details.
2. Service entrance wiring — trough, minimum 12” x 12”, to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. The trough may be located at either left or right as shown.
3. Minimum 12” x 12” trough secured and bonded to C.T. cabinet. Load wiring from C.T. cabinet may be out of top or bottom, near either end, but shall be on opposite end from supply wiring.
4. Load conductors - leave 60” of each conductor inside C.T. cabinet.
5. See Notes (N1), (N2), and (N3).

Company Furnishes and Installs:
- A) Current transformer rated meter enclosure. (For alternate locations, consult Company).
- B) Watt-hour meter.
- C) Current transformers (not shown).
- D) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.

Notes:
- (N1) Space required for C.T. rated meter enclosure.
- (N2) A minimum clear space of 48” in front of C.T. Cabinet is required.
- (N3) Minimum clear space of 6” on both sides of CT cabinet is required. If meter is to be installed adjacent to the C.T. Cabinet, see (N1).

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**Gas & Electric Metering Manual**

*August 2018*

*Baltimore Gas and Electric Company*
Consult Baltimore Gas and Electric Company.
Indoor Location - NON-STANDARD - See Section 105-3
See Section 405 for C.T. Cabinet details

Service Conductors:
Line and Load Side of C.T. Cabinet - Max. 9 sets 500 kcmil
Max. 8 sets 600 kcmil

Customer Furnishes and Installs:
1. C.T. Cabinet. See Section 405 for details.
2. Service entrance wiring in trough — may enter back (maximum 4” above floor line) or bottom of trough.
3. Three-sided trough, with 1” flanges to be constructed of 14-gauge steel or 10-gauge aluminum to enclose service conductors. If installed on combustible surface, a sheet metal plate against the wall is required.
4. Minimum 12” x 12” trough secured and bonded to the top of the C.T. cabinet. Bus duct may be used in lieu of trough.
5. Load conductors - leave 48” of each conductor inside C.T. cabinet.
6. Disconnecting means.
7. See Notes (N1), (N2), (N3) and (N4).
8. Cut out top and bottom 10” x 34” to mate with trough.

Company Furnishes and Installs:
(A) Current transformer rated meter enclosure. (For alternate locations, consult Company).
(B) Watt-hour meter.
(C) Current transformers (not shown).
(D) Raceway between C.T. cabinet and meter enclosure (not more than 3”). For indoor locations greater than 3”, 1-1/4” rigid conduit is required. For alternate locations, greater than 50’, consult with Company.

Notes:
(N1) Installation may be inverted for top feed to cabinet.
(N2) Space required for C.T. rated meter enclosure.
(N3) A minimum clear space of 48” in front of C.T. Cabinet is required.
(N4) Minimum clear space of 6” on both sides of CT cabinet is required.

Consult Baltimore Gas and Electric Company.

Service Conductors:
  Line Side (Customer's Service Wiring) - Determined by size of service.

Customer Furnishes and Installs:
  1) Service entrance wiring, leave 36” of each conductor for connection to service loop.
  2) 1½” rigid conduit (outdoor/indoor) or Schedule 40 PVC (outdoor only) (with pull-wire if necessary), with service head and fittings to C.T. rated meter enclosure, not to exceed 50’.
  3) See Notes (N1), (N2), (N3), and (N4).

Company Furnishes and Installs:
  (A) Current transformer rated meter enclosure. (For alternate locations, consult Company).
  (B) Watt-hour meter.
  (C) Current transformer mounting plate (if necessary).
  (D) Current transformer.
  (E) Current transformer wiring between service loop and current transformer rated meter enclosure.
  (F) Necessary connectors to terminate Customer’s wiring to service loop and instrument transformer wiring.

Notes:
  (N1) Space required for C.T. rated meter enclosure.
  (N2) A minimum clear space of 48” in front of all metering equipment is required.
  (N3) See Section 302 for meter clearances.
  (N4) See Section 303 for loop clearances.
  (N5) Refer to 412-1 and 412-2 concerning protection of meter.

NON-STANDARD - Consult the Baltimore Gas and Electric Company.

Service Conductors:
Line Side (Customer’s Service Wiring) - Determined by size of service.

Customer Furnishes and Installs:
(1) Service entrance wiring, leave 48” of each conductor for connection to service loop.
(2) 1¾” rigid conduit (outdoor/indoor) or Schedule 40 PVC (outdoor only) (with pull-wire if necessary), with service head and fittings to C.T. rated meter enclosure, not to exceed 50’.
(3) See Notes (N1), (N2), (N3), (N4), and (N5).

Company Furnishes and Installs:
(A) Current transformer rated meter enclosure. (For alternate locations, consult Company).
(B) Watt-hour meter.
(C) Current transformer mounting plate.
(D) Current transformers.
(E) Current transformer wiring between service loop and current transformer rated meter enclosure.
(F) Necessary connectors to terminate Customer’s wiring to service loop and instrument transformer wiring.

Notes:
(N1) Space required for C.T. rated meter enclosure.
(N2) A minimum clear space of 48” in front of all metering equipment is required.
(N3) See Section 302 for meter clearances.
(N4) See Section 303 for loop clearances.
(N5) Consult Company for details of larger services than shown using a wall bus.
(N6) Refer to 412-1 and 412-2 concerning protection of meter.
Consult Baltimore Gas and Electric Company.

Service Conductors:
Line Side (Customer’s Service Wiring) - Determined by size of service.

Customer Furnishes and Installs:
1. Service entrance wiring, leave 60" of each conductor for connection to service loop.
2. 1½” rigid conduit (outdoor/indoor) or Schedule 40 PVC (outdoor only) (with pull-wire if necessary), with service head and fittings to C.T. rated meter enclosure, not to exceed 50’.
3. See Notes (N1), (N2), (N3), (N4), and (N5).

Company Furnishes and Installs:
(A) Current transformer rated meter enclosure. (For alternate locations, consult Company).
(B) Watt-hour meter.
(C) Current transformer mounting plate.
(D) Current transformers.
(E) Current transformer wiring between service loop and current transformer rated meter enclosure.
(F) Necessary connectors to terminate Customer’s wiring to service loop and instrument transformer wiring.

Notes:
(N1) Space required for C.T. rated meter enclosure.
(N2) A minimum clear space of 48” in front of all metering equipment is required.
(N3) See Section 302 for meter Clearances.
(N4) See Section 303 for loop clearances.
(N5) Consult Baltimore Gas and Electric Company for details of larger services than shown using a wall bus.
(N6) Refer to 412-1 and 412-2 concerning protection of meter.
327 Existing Town House Installations

Indoor Location - NON-STANDARD - See Section 105-3. Consult Baltimore Gas and Electric Company.

Town (row) house meter installations, particularly in Baltimore City, involving load increases, rehabs, renovations, etc. require unique wiring and meter enclosure configurations. The following diagram illustrates one of the more common situations and shows the Company’s preferred installation method. **This configuration is not for new buildings since as they will be fed by an underground service line (See Section 602 for additional details).**

![Diagram of Town House Meter Installation]

**Service Conductors:**

Line and Load Side of Meter Enclosure - Determined by size of service (typically 100 – 200 A)

**Customer Furnishes and Installs:**

1. Service entrance cable.
2. Main disconnecting means which shall be a sealable circuit breaker or a fused switch with sealable barriers which enclose all unmetered conductors/connections except the fuses.
3. Conduit (can be rigid, PVC or EMT) – diameter determined by size of service. Four (4) individual conductors are required – two hot, one neutral and one ground – between the disconnecting means and the meter enclosure.
4. Meter Enclosure (BGE furnishes).
5. See Note (N1).

**Company Furnishes and Installs:**

A. Meter Enclosure (Customer installs).
B. Watt-hour meter.

**Notes:**

(N1) A minimum clear space of 48” in front of all metering equipment is required.
### 401 Approved Pedestal Metering Equipment (Freestanding)

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Numbers</th>
<th>Service/Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwest Electric (507-345-2543)</td>
<td>M281C1P6H (single meter)</td>
<td>1Ø, 3 Wire</td>
</tr>
<tr>
<td></td>
<td>M282E1P6H (single meter)</td>
<td>120/240 V</td>
</tr>
<tr>
<td></td>
<td>M281C1B6H (dual meter)</td>
<td></td>
</tr>
<tr>
<td>Milbank (816-483-5314)</td>
<td>U5300-0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CP3B52115BMLBGE†</td>
<td></td>
</tr>
<tr>
<td>RV Park Hookups, Inc. (800-723-8009)</td>
<td>Powerhouse PH305020†</td>
<td></td>
</tr>
<tr>
<td>Millbank (816-483-5314)</td>
<td>U5136-O-**** (ringless; single meter)</td>
<td>3Ø, 4 Wire</td>
</tr>
<tr>
<td></td>
<td>CP3B52519BMLBGE†</td>
<td>120/208 V</td>
</tr>
<tr>
<td>Millbank (816-483-5314)</td>
<td>U5137-O-**** (ringless; dual meter)</td>
<td></td>
</tr>
<tr>
<td>Millbank (816-483-5314)</td>
<td>U6221-O-100² (ringless with lever bypass)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U6221-O-200² (ringless with lever bypass)</td>
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</tr>
<tr>
<td>Millbank (816-483-5314)</td>
<td>U6226-O-100 (ring type)</td>
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</tr>
<tr>
<td></td>
<td>U6226-O-200 (ring type)</td>
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</tr>
<tr>
<td>Milbank (816-483-5314)</td>
<td>CP3B52519BMLBGE†</td>
<td></td>
</tr>
</tbody>
</table>

* Mounts on customer installed concrete pad.

**Pedestals for applications such as mobile homes, public area lighting, traffic signs, and CATV amplifier installations.**

1. Meter protection required. See Section 412.
2. Pedestal shall be for electric use only.

Customer supplies, installs and maintains all materials (except underground lateral and meter).

1. Maximum capacity per meter position - 200 amps.
2. Stabilizer foot required for units installed in the ground.
3. For Powerhouse:
   - Meter socket shall be of ring type.
   - Provide hasp to seal bottom cover.

**Note(s):**
1. Height to C/L of meters - min. 36”, max. 42”
2. For Commericial and Maryland Department of Transportation (MDOT) use
# 402-1 Approved 200 Amp Modular Metering Equipment

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Numbers</th>
<th>1Ø, 3W</th>
<th>3Ø, 3W</th>
<th>3Ø, 4W</th>
</tr>
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<tbody>
<tr>
<td>General Electric</td>
<td></td>
<td>TMMTPP</td>
<td>TMP</td>
<td>TMPR</td>
</tr>
<tr>
<td>(800-431-7867)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siemens (ITE Electrical)</td>
<td></td>
<td>HM</td>
<td>PK</td>
<td>W3MM</td>
</tr>
<tr>
<td>(800-964-4114)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Square D (888-778-2733)</td>
<td></td>
<td>EZ</td>
<td>MP(3)</td>
<td></td>
</tr>
<tr>
<td>Eaton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutler/Hammer (800-888-0211)</td>
<td></td>
<td>1MP</td>
<td>1MM</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>35MM</td>
<td>3MM</td>
<td>37MM PRLC-WCMS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Additional Requirements:

1. Main disconnect devices shall comply with the Company’s sealing requirements. See Section 104-8.

2. Bypass Requirements (meter can be pulled without disrupting service):

   (a) Three-phase - manual (lever type) bypass is required on all three-phase meter sockets supplying industrial and commercial customers. Meter cover must be ringless.

   (b) Single phase commercial - one of the following bypass configurations is required for all single phase meter sockets supplying commercial customers:

   - lever bypass with ring-less cover (preferred)
   - horn bypass with ring-less cover (acceptable)
   - slide bypass with ring-type cover (acceptable)

3. Maximum capacity per meter position - 200 amps

4. Height to center line of meters - minimum 20” (lowest position), maximum 72” (highest position).

5. The Company requires a fifth jaw, installed and wired at the 9 o’clock position with 1Ø, 3W network metering (120/208V).

6. If an item is not on the list, or to make changes, notify the Company for approval.

7. Stud and lay-in connections are permissible.

### Notes:

(1) Not for use on 240/120V delta (power wire) systems (see Section 101-2). Not for use on jobs involving modifications (service relocation, heavy up, etc.) to 240V delta services.

(2) Square D stud kit for MP series is MMSK2. See note 7 above.

(3) For commercial installations which require bypass capability.

(4) Eaton, Cutler/Hammer studkit is MPSC2-TB.

(5) 6 position switchboard (this is switchboard metering)
### 402-2 Approved 400 Amp Modular Metering Equipment (320 Amp Continuous)

**Catalog Designations**

**Modular Metering Equipment**

**Class of Service at Meter**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>1Ø,3W</th>
<th>3Ø,4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Electric (800-431-7867)</td>
<td>120/240V</td>
<td>MPR</td>
</tr>
<tr>
<td>Siemens (ITE Electrical) (800-964-4114)</td>
<td>W1MM</td>
<td>W3MM</td>
</tr>
<tr>
<td>Square D (2) (888-778-2733)</td>
<td>EZM</td>
<td>EZML</td>
</tr>
<tr>
<td>Eaton (1)(3) Cutler/Hammer (800-888-0211)</td>
<td></td>
<td>37MM</td>
</tr>
</tbody>
</table>

**Model Numbers**

- 1Ø,3W: 120/240V
- 3Ø,4W: 120/208V

**Additional Requirements:**

1. Main disconnect devices shall comply with the Company’s sealing requirements. See Section 104-8.
2. Bypass Requirements (meter can be pulled without disrupting service): Manual (lever type) bypass is required on all meter sockets supplying industrial and commercial customers. Meter cover must be ringless.
3. Maximum capacity per meter position - 400 amps (320 amps continuous)
4. Height to center line of meters - minimum 20” (lowest position), maximum 72” (highest position).
5. If an item is not on the list, or to make changes, contact the Company for approval.
6. Stud and lay-in connections are permissible.

**Notes:**

- (1) Eaton, Cutler/Hammer studkit is MPSC2-TB.
- (2) Square D Stud Kit for MP Series is MMSK2.
- (3) Only available in Two-breaker model.
403 Approved Current Transformer Cabinet; 1Ø, 3W; 201-400 Amps

Company-approved, Customer-supplied cabinet to house Company metering current transformers.

The following criteria must be used:
1. Customer supplied current transformer cabinet may be purchased from local suppliers that handle this C.T. cabinet. The Company has pre-approved specifications for this cabinet. The cabinet must comply with NEMA Type 3R standards.
2. Main disconnecting device, when ahead of the instrument transformers, shall comply with the Company’s sealing requirements. See Section 104-8
3. Company shall furnish and install an approved terminal board in the C.T. cabinet to provide for stud type/compression terminals provided and installed by the Company.
4. Customer shall install a 1¼” rigid conduit from the C.T. cabinet to the meter up to a maximum of 50’ to facilitate a remote meter. The Company will install the #10 meter wiring. For distances greater than 50’, consult the Company.

Note: Height to C/L of meter - min. 42”, max. 60”.
Consult the Company.

See Sections 220 for underground or 322 for overhead installation clearances.
404 Approved Current Transformer Cabinet; 1Ø, 3W; 3Ø, 4W; 201-1,600 Amps

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Sheet Metal</td>
<td>ATL 1600</td>
</tr>
<tr>
<td>J. M. Gillin Corp.</td>
<td>G-364214-U.C.T.</td>
</tr>
<tr>
<td>Meter Devices Co.</td>
<td>507U6521</td>
</tr>
<tr>
<td>S.A.R. Metal Products</td>
<td>SAR001A</td>
</tr>
<tr>
<td>Hoffman Enclosures</td>
<td>A364214BGECT</td>
</tr>
</tbody>
</table>

Dimensions (36”H x 42”W x 14”D)

Catalog Designations
1Ø, 3W, 3Ø, 4W  201-1600 Amps Current Transformer Cabinet

Company-approved, Customer-supplied cabinet to house Company metering current transformers.

The following criteria must be used:
1. Customer supplied current transformer cabinet may be purchased from local suppliers that handle this C.T. cabinet. The Company has pre-approved specifications for this cabinet. The cabinet must comply with NEMA Type 3R standards.
2. Main disconnecting device, when ahead of the instrument transformers, shall comply with the Company’s sealing requirements. See Section 104-8
3. Company shall furnish and install an approved terminal board in the C.T. cabinet to provide for stud type/compression terminals provided and installed by the Company.
4. Customer shall install a 1¼” rigid conduit from the C.T. cabinet to the meter up to a maximum of 50’ to facilitate a remote meter. The Company will install the #10 meter wiring. For distances greater than 50’, consult the Company.

Note: Height to C/L of meter - max. 60”.
Consult the Company.

See Sections 221 for underground or 323 for overhead installation clearances.
405 Approved Current Transformer Cabinet; 3Ø, 4W; 201-3,000 Amps

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Catalog Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(42”H x 36”W x 14”D)</td>
<td>3Ø, 4W 201-3000 Amps Current Transformer Cabinet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Sheet Metal (410-391-8066)</td>
<td>ATL 3000</td>
</tr>
<tr>
<td>J. M. Gillin Corp. (410-728-8700)</td>
<td>G-423614-U.C.T.</td>
</tr>
<tr>
<td>Meter Devices Co. (888-367-6383)</td>
<td>507U6532</td>
</tr>
<tr>
<td>S.A.R. Metal Products (410-780-5434)</td>
<td>SAR002A</td>
</tr>
<tr>
<td>Hoffman Enclosures (763-422-2181)</td>
<td>A423614BGECT</td>
</tr>
</tbody>
</table>

Company-approved, Customer-supplied cabinet to house Company metering current transformers.

The following criteria must be used:

1. Customer supplied current transformer cabinet may be purchased from local suppliers that handle this C.T. cabinet. The Company has pre-approved specifications for this cabinet. The cabinet must comply with NEMA Type 3R standards.
2. Main disconnecting device, when ahead of the instrument transformers, shall comply with the Company’s sealing requirements. See Section 104-8
3. Company shall furnish and install an approved terminal board in the C.T. cabinet to provide for stud type/compression terminals provided and installed by the Company.
4. Customer shall install a 1¼” rigid conduit from the C.T. cabinet to the meter up to a maximum of 50’ to facilitate a remote meter. The Company will install the #10 meter wiring. For distances greater than 50’, consult the Company.

**Note:** Height to C/L of meter - min. 42”, max. 60”. Consult the Company.

See Sections 222 for underground or 324 for overhead installation clearances.
406 Approved Service Entrance Compartment; 3Ø, 4W; Up to 6,000 Amps

Service Supplied by Underground Cable
Drawing No. 14061-C (next page)

Company-approved manufacturers of compartments in switchgear to house Company metering instrument transformers or cable termination facilities.

<table>
<thead>
<tr>
<th>Name of Manufacturer</th>
<th>Drawing No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutler-Hammer</td>
<td>8451C89</td>
</tr>
<tr>
<td>General Electric</td>
<td>75C323034A</td>
</tr>
<tr>
<td>Siemens Electric</td>
<td>DJN14061-C</td>
</tr>
<tr>
<td>Square D Company</td>
<td>B43-0036-175</td>
</tr>
</tbody>
</table>

The following criteria must be used:
1. Prior to manufacture of the switchgear, the Customer shall submit at least three sets of the switchgear drawings (the Company will retain two sets) for Company approval to the responsible Gas and Electric New Business Department, I&C Customer Representative. Drawing should include the front elevation, one line diagram, and details of the metering/termination compartment.
2. The instrument transformer compartment shall have two doors that are latched with a sealable handle. Handle must not contain a key.
3. Customer shall install a 1¼” rigid conduit from the compartment to the meter up to a maximum of 50’ to facilitate a remote meter. The Company will install the #10 meter wiring. For distances greater than 50’, consult the Company.
4. Meter socket may be installed on side of the compartment with 1-1/2” x 1-1/2” Kindorf (galvanized).

Note: Height to C/L of meter - min. 42”, max. 60”. Meter may be adjacent to the instrument transformer compartment, or remote from the switchgear equipment. Consult the Company.

See Drawing No. 14061-C (next page) for details of typical arrangement for current transformer compartment constructed in customer’s switchgear when supplied by underground cable. Invert drawing for top entry.

Note: A pit is required for the installation of Company Underground wiring. This pit shall be beneath the underground section of the C.T. compartment in the switchgear. This pit shall be two (2) feet deep and measure one (1) inch less than the width and depth of the compartment to facilitate shaping of the underground cables. The walls of the pit shall be of solid material (concrete or fiberglass). Duct to enter bottom of pit in a vertical position and extend to 4” into pit. Consult the Company. If a pit cannot be installed, the Customer shall consult with the Metering Inspector for a suitable arrangement.
407 Approved Switchgear Current Transformer Compartment; 3Ø, 4W; Up to 6,000 Amps

Drawing No. 14060-C (next page)

Company-approved compartments in switchgear to house Company metering instrument transformers or unmetered service equipment.

The following criteria must be used:
1. Prior to manufacture of the switchgear, the Customer shall submit at least three sets of the switchgear drawings (the Company will retain two sets) for Company approval to the responsible Gas and Electric New Business Department, I&C Customer Representative.
2. Main disconnecting device, when ahead of the instrument transformers, shall comply with the Company’s sealing requirements. See Section 104-8
3. The instrument transformer compartment shall have two doors that are latched with a sealable handle. Handle must not contain a key.
4. Customer shall install a 1¼” rigid conduit from the C.T. compartment to the meter up to a maximum of 50’ to facilitate a remote meter. The Company will install the #10 meter wiring. For distances greater than 50’, consult the Company.
5. Meter socket may be installed on side of the C.T. compartment with 1-1/2” x 1-1/2” Kindorf (galvanized).

**Note:** Height to C/L of meter - min. 42”, max. 60”. Meter may be adjacent to the instrument transformer compartment, or remote from the switchgear equipment. Consult the Company.

**See Drawing No. 14060-C** (next page) for details of typical arrangement for current transformer compartment constructed in customer’s switchgear.
[408-1] Communication Service on Company or Joint-Owned Pole

Service Conductors:
- Line Side of Meter Socket — 1 set, Max. #2
- Load Side of Meter Socket — 1 set, Max. #8

Customer Furnishes and Installs:
- Communication Company furnishes and installs all material and equipment (except meter socket and meter).

Communication Company installs the Company furnished meter socket.

1. Service entrance wiring - line side of meter. Must be 3-wire.  
   **Note:** Service head shall be nine (9) inches below the lowest wire of the secondary bus, 1Ø or 3Ø.

2. Service entrance wiring from load side of meter socket.

3. Main disconnect shall be three (3) wire, to permit the installation of a three-wire meter.

4. Grounding electrode conductor.

5. Metal bracket made in one piece, fastened to the pole with a thru-bolt at the top and bottom of bracket. All equipment shall be fastened to this bracket. This design is to facilitate the transfer of equipment. Thru-bolts are to be cut off flush with the nut.

6. All cables run vertically on the pole, shall be covered with conduit, PVC-EPC 40, for cable protection. PVC conduits are to be fastened with two-(2)-hole bands.

7. See Notes (N1) and (N2).

Company Furnishes and Installs:
(A) Meter Socket 100A (Communication Company shall install).
(B) Watt-hour meter.
(C) Makes connection to secondary bus.

Notes:
(N1) Meter and other equipment to be installed on field side of pole.
(N2) A minimum clear space of 48” in front of all metering equipment is required.
18” minimum to walkway.
36” minimum to driveway.

**Note:** For an underground installation, see Section 408-2.
NOTE: There are two approved configurations for metering CATV amplifiers fed from underground service laterals. See following page for alternate configuration.

**Service Conductors:**
- Line and Load Side of Meter Socket — 1 set, Max. 4/0

**Customer Furnishes and Installs:**
- CATV Company furnishes and installs all material and equipment, including meter socket (except meter).
  1. Cabinet with amplifier and power supply. Cabinet to be mounted on a concrete (or other suitable material) base.
  2. Company-approved freestanding meter pedestal (See Section 401 for requirements).
  3. Service entrance wiring from load side of meter pedestal. Must be installed in flexible conduit.
  4. Main disconnect shall be three (3) wire, to permit the installation of a three-wire meter.
  5. Grounding electrode conductor.
  6. See Notes (N1) and (N2).

**Company Furnishes and Installs:**
- (A) Watt-hour meter.
- (B) Makes connections in meter pedestal.
- (C) Underground lateral.

**Notes:**
- (N1) Meter equipment to be installed on field side of CATV unit.
- (N2) A minimum clear space of 48" in front of all metering equipment is required.
  - 18" minimum to walkway.
  - 36" minimum to driveway.
NOTE: There are two approved configurations for metering CATV amplifiers fed from underground service laterals. See preceding page for alternate configuration.

Service Conductors:
Line and Load Side of Meter Socket — 1 set, Max. 4/0

Customer Furnishes and Installs:
CATV Company furnishes and installs all material and equipment, including meter socket (except meter).

(1) Cabinet with amplifier and power supply. Cabinet to be mounted on a concrete (or other suitable material) base.
(2) Two 2" hot dip galvanized conduit standards and install meter socket.
(3) Service entrance wiring from load side of meter socket. Must be installed in flexible conduit.
(4) PVC conduit raceways (EPC 40) for line wiring. Ell should be a minimum of 36" radius. See Sections 201-4 and 201-5 for details.
(5) Main disconnect shall be three (3) wire, to permit the installation of a three-wire meter.
(6) Grounding electrode conductor.
(7) See Notes (N1) and (N2).

Company Furnishes and Installs:
(A) Watt-hour meter.
(B) 200 Amp meter socket box (Customer shall install).
(C) Makes connections in socket box.
(D) Underground lateral.

Notes:
(N1) Meter equipment to be installed on field side of CATV unit.
(N2) A minimum clear space of 48" in front of all metering equipment is required. 18” minimum to walkway.
36” minimum to driveway.
409 Typical Wiring Method for a Single Meter Socket

UNDERGROUND FED METER SOCKET

OVERHEAD FED METER SOCKET
410 Fire Pump Installations

NOTE: All fire pump installations must be in a C.T. cabinet.

The attached table provides the related sizing of fire pump services and their associated metering needs. Use of this table will help ensure consistent application of service cable and metering equipment for these installations.

Fire Pump Cabinet and Conductor Sizing

<table>
<thead>
<tr>
<th>Fire Pump Horsepower Rating by Voltage Class</th>
<th>Motor FLA Amperes</th>
<th>Motor Starting Amperes</th>
<th>KVA Load From 2005 NEC Table 430.250 FLA x 125%</th>
<th>Locked Rotor Amperes From 2017 NEC Table 430.251(B)</th>
<th>Locked Rotor KVA</th>
<th>Type of Installation</th>
<th>CT Size</th>
<th>Service Conductors</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/208V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td>24</td>
<td>30</td>
<td>9</td>
<td>140</td>
<td>50</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
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<tr>
<td>10</td>
<td>31</td>
<td>39</td>
<td>11</td>
<td>179</td>
<td>64</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
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<tr>
<td>15</td>
<td>46</td>
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<td>17</td>
<td>257</td>
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<td>40</td>
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<td>200/5</td>
<td>4/0</td>
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<td>50</td>
<td>143</td>
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<td>52</td>
<td>802</td>
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<td>60</td>
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<td>347</td>
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<td>200/5</td>
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<td>1200</td>
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<td>CT-Rated</td>
<td>500/5</td>
<td>2 sets 500 kcmil</td>
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<td>125</td>
<td>343</td>
<td>429</td>
<td>124</td>
<td>2007</td>
<td>723</td>
<td>CT-Rated</td>
<td>500/5</td>
<td>2 sets 500 kcmil</td>
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<td>150</td>
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<td>143</td>
<td>2400</td>
<td>865</td>
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<td>200</td>
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<td>3207</td>
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<td>3 sets 500 kcmil</td>
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<td>7.5</td>
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<td>63.5</td>
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<td>4/0</td>
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<td>14</td>
<td>18</td>
<td>12</td>
<td>81</td>
<td>67</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>15</td>
<td>21</td>
<td>26</td>
<td>17</td>
<td>116</td>
<td>96</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>20</td>
<td>27</td>
<td>34</td>
<td>22</td>
<td>145</td>
<td>121</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>25</td>
<td>34</td>
<td>43</td>
<td>28</td>
<td>183</td>
<td>152</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>30</td>
<td>40</td>
<td>50</td>
<td>33</td>
<td>218</td>
<td>181</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>40</td>
<td>52</td>
<td>65</td>
<td>43</td>
<td>290</td>
<td>241</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>50</td>
<td>65</td>
<td>81</td>
<td>54</td>
<td>363</td>
<td>302</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>60</td>
<td>77</td>
<td>96</td>
<td>64</td>
<td>435</td>
<td>362</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>75</td>
<td>96</td>
<td>120</td>
<td>80</td>
<td>543</td>
<td>451</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>100</td>
<td>124</td>
<td>155</td>
<td>103</td>
<td>725</td>
<td>603</td>
<td>CT-Rated</td>
<td>200/5</td>
<td>4/0</td>
</tr>
<tr>
<td>125</td>
<td>156</td>
<td>195</td>
<td>130</td>
<td>908</td>
<td>755</td>
<td>CT-Rated</td>
<td>500/5</td>
<td>1 set 500 kcmil</td>
</tr>
<tr>
<td>150</td>
<td>180</td>
<td>225</td>
<td>150</td>
<td>1085</td>
<td>902</td>
<td>CT-Rated</td>
<td>500/5</td>
<td>1 set 500 kcmil</td>
</tr>
<tr>
<td>200</td>
<td>240</td>
<td>300</td>
<td>200</td>
<td>1450</td>
<td>1205</td>
<td>CT-Rated</td>
<td>500/5</td>
<td>2 sets 500 kcmil</td>
</tr>
</tbody>
</table>

Reference NEC Article 695 - Fire Pumps
411 Approved Outdoor C.T./Service Termination Cabinet
3Ø, 4W 4000 Amps

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Catalog Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(72”W x 54”H x 43”D)</td>
<td>1Ø, 3W, 3Ø, 4W  4000 Amps Service Termination Cabinet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. M. Gillin Corp.</td>
<td>G-544372-STC</td>
</tr>
<tr>
<td>(410-728-8700)</td>
<td></td>
</tr>
</tbody>
</table>

Company-approved, Customer supplied free-standing service termination cabinet to house Company metering current transformers. Use of this cabinet is detailed in Section 227. This cabinet contains two (2) separate compartments, one for the Company and the other for the Customer. The Company side will provide a termination area for cables running underground from the secondary side of the Company transformer. It will also house the current transformers. The Customer side will provide a termination area for load cables. The watthour meter socket will be attached to the exterior of the cabinet on the Company’s side using 1-1/2” x 1-1/2” Kindorf (galvanized).

The following criteria must be used:
1. Customer supplied service termination transformer cabinet may be purchased from one of the pre-approved local suppliers listed above. The cabinet comes supplied with copper bus bars that are attached to copper termination strips. It must comply with NEMA Type 3R standards.
2. Customer shall furnish and install a 1-1/4” raceway that runs from the bottom of the meter socket through the side of the cabinet into the Company compartment.
3. Customer shall furnish and install a 4” thick concrete pad. If 8 or more ducts are required between the transformer and the cabinet, a 24” pit will be required on the Company end of the pad. See Section 226 for further details.
4. Customer shall furnish and install eight (8) foot ground rod with #4 bare copper wire tied to ground lug on customer side of cabinet.
412 Approved Indoor Service Termination Cabinet; 3Ø, 4W; 1,600-3,000 Amps

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Dimensions</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. M. Gillin Corp. (410-728-8700)</td>
<td>(72”H x 60”W x 14”D)</td>
<td>G-726014-STC</td>
</tr>
</tbody>
</table>

Company-approved, Customer-supplied cabinet to house Service Terminations of underground line and load cables.

The following criteria must be used:
1. Customer supplied service termination cabinet may be purchased from local suppliers. The Company has pre-approved specifications for this cabinet.
2. Termination Cabinet shall comply with the Company’s sealing requirements. See Section 104-8
3. Company shall furnish and install an approved terminal board.
4. Service cables can only enter from the bottom of the cabinet.

**Note:** For this type of installation, consult the Company.

See Section 222 for underground installation clearances.
413 Approved Indoor Service Termination Cabinet; 3Ø, 4W; Above 3,000 Amp

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Dimensions</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.A.R. Metal Products</td>
<td>(84”H x 60”W x 48”D)</td>
<td>Custom made</td>
</tr>
<tr>
<td>(410-780-5434)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J.M. Gillen Corp</td>
<td>(84”H x 60”W x 48”D)</td>
<td>Custom made</td>
</tr>
</tbody>
</table>

**Note:** For this type of installation, consult the Company; termination bars must be rated to 3000A Company-approved, Customer-supplied cabinet to house Service Terminations of underground line and load cables. This cabinet is not design to house BGE metering equipment.

The following criteria must be used:

1. Customer supplied service termination cabinet may be purchased from local suppliers. The Company has pre-approved specifications for this cabinet. Note that bars and cabinet must be UL approved.
   - Copper bars are 3’9”L x 6”W.
   - Connector holes are 2” on center and 9/16” in diameter.
   - Bracket bolts are 1” off end of bar and center bracket is 22” from end.
2. Termination Cabinet shall comply with the Company’s sealing requirements. See Section 104-8
3. Service cables can only enter from the bottom of the cabinet.

See Section 222 for underground installation clearances.
414 Service Entrance Trough Requirements

BGE has implemented new service entrance trough requirements to protect utility and contract personnel from electrical injury. These requirements focus on protecting, supporting and training service entrance cables. They also include new requirements for trough support and trough covers. New trough access procedures are also detailed below.

The company has pre-approved specifications for service entrance troughs with the vendors listed below.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.M. Gillin Corp.</td>
<td>410-728-8700</td>
</tr>
<tr>
<td>S.A.R Metal Products</td>
<td>410-780-5434</td>
</tr>
<tr>
<td>Atlantic Sheet Metals</td>
<td>410-391-8066</td>
</tr>
</tbody>
</table>

See drawing (following page) for details of service entrance trough requirements.

**Customer Furnishes and Installs**

1. 14” (W) x 14” (H) service entrance trough (various lengths) to be constructed of 14-gauge steel or 10-gauge aluminum.
2. Trough cover(s) – maximum 48” in length. Two handles per cover (see drawing).
3. Trough support brackets – affixed to wall every 48”. A minimum 6” clearance is required below trough support brackets.
4. See Notes (N1), (N2), (N3), and (N4).

**Company Furnishes and Installs:**

1. Terminal Blocks (Not Shown)

**Notes:**

1. Enclosed channel to prevent screw penetration into trough as shown in drawing. Use blunt point sheet metal screws or machine screws no longer than 3/4”. Design may vary by manufacturer. Any variations from drawing must be approved by BGE.
2. Wire tie channel with 1/4” inch slot inside trough every 24” for cable training and support.
3. Guide pins or tabs to align and support trough cover. Two guide pins or tabs minimum per trough cover. They should also provide provisions for sealing trough.


**Trough Access Procedure (effective April 2009)**

1. Master or Licensed Electrician calls BGE (G&E New Business Line: 410-637-8713/800-233-1854) to inform us of planned work involving an electrical trough.
2. Call is routed to appropriate M&I Meter Inspector based on geographic responsibility.
3. Meter Inspector discusses job with electrician to obtain necessary information (e.g. WMS# (if available), address, customer, reason for access, electrician’s name, expected date of completion, etc.)
4. Meter Inspector notes request in WMS (if job exists at this location) or meter inspection reports (if job does not exist in WMS) maintained by M&I.
5. If necessary, Meter Inspector travels to job site for pre-work inspection and contacts with electrician.
6. Master or Licensed Electrician performs work on the trough and calls Meter Inspector to indicate work is complete.
7. If BGE follow up work remains, field crew will reseal trough. If follow up BGE work is not required, Meter Inspector reseals trough. If Meter Inspector has not heard from electrician within a week or so after expected completion date, he contacts electrician to follow-up on job status.
414 Service Entrance Trough Requirements (cont)
[415] Meter Pedestals for Traffic Control Signals with Lever Bypass

<table>
<thead>
<tr>
<th>Service</th>
<th>10.3W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Volts</td>
<td>240</td>
</tr>
<tr>
<td>Max. Amps</td>
<td>200</td>
</tr>
</tbody>
</table>

Customer Furnishes and Installs:

1. **Meter Pedestal with a Lever Bypass**
   - Customer shall install one of the following meter pedestals, depending on loading:
     - For 100A: Milbank, U6221-O-100 [80”H x 9-11/16”W x 4-3/4”D]
     - For 200A: Milbank, U6221-O-200 [80”H x 9-11/16”W x 4-3/4”D]

2. See Notes (N1) and (N2)

Company Furnishes and Installs:

A. Watt-hour meter.
B. Underground lateral.

Notes:

1. 36” minimum clear work space.
2. A minimum clear space of 48” in front of all metering equipment is required.
   - 18” minimum to walkway.
   - 36” minimum to driveway.
501 Metering Calculations

501-1 Table I - Formulas for Determining Amps, HP, KW, and kVA

\[
\begin{align*}
E &= \text{Voltage} \quad \text{eff} = \text{Efficiency} \quad \text{hp} = \text{Horsepower} \\
I &= \text{Current} \quad pf = \text{Power Factor}
\end{align*}
\]

<table>
<thead>
<tr>
<th>TO FIND</th>
<th>SINGLE-PHASE (AC)</th>
<th>THREE-PHASE (AC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amps when horsepower is known</td>
<td>(\frac{hp \times 746}{E \times \text{eff} \times pf})</td>
<td>(\frac{hp \times 746}{1.73 \times E \times \text{eff} \times pf})</td>
</tr>
<tr>
<td>Amps when kilowatts is known</td>
<td>(\frac{kW \times 1000}{E \times pf})</td>
<td>(\frac{kW \times 1000}{1.73 \times E \times pf})</td>
</tr>
<tr>
<td>Amps when kVA is known</td>
<td>(\frac{kVA \times 1000}{E})</td>
<td>(\frac{kVA \times 1000}{1.73 \times E})</td>
</tr>
<tr>
<td>Kilowatts</td>
<td>(\frac{I \times E \times pf}{1000})</td>
<td>(\frac{I \times E \times 1.73 \times pf}{1000})</td>
</tr>
<tr>
<td>kVA</td>
<td>(\frac{I \times E}{1000})</td>
<td>(\frac{I \times E \times 1.73}{1000})</td>
</tr>
<tr>
<td>Horsepower (output)</td>
<td>(\frac{I \times E \times \text{eff} \times pf}{746})</td>
<td>(\frac{I \times E \times 1.73 \times \text{eff} \times pf}{746})</td>
</tr>
</tbody>
</table>

501-2 Table II - Full-Load Currents in Amps for Single-Phase Circuits

\[\text{Full – Load Current (Amps)} = \frac{kVA \times 1000}{\text{Line – Line voltage}}\]

<table>
<thead>
<tr>
<th>Voltage</th>
<th>kVA</th>
<th>120V</th>
<th>240V</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>25.0</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>41.7</td>
<td>20.8</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>83.3</td>
<td>41.7</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>125.0</td>
<td>62.5</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>208.0</td>
<td>104.0</td>
<td></td>
</tr>
<tr>
<td>37.5</td>
<td>313.0</td>
<td>156.0</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>417.0</td>
<td>208.0</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>625.0</td>
<td>313.0</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>833.0</td>
<td>417.0</td>
<td></td>
</tr>
<tr>
<td>167</td>
<td>1392.0</td>
<td>696.0</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>2083.0</td>
<td>1042.0</td>
<td></td>
</tr>
<tr>
<td>333</td>
<td>2775.0</td>
<td>1388.0</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>4167.0</td>
<td>2083.0</td>
<td></td>
</tr>
</tbody>
</table>
501-3 Table III - Full-Load Currents in Amps for Three-Phase Circuits

\[ \text{Full - Load Current (Amps)} = \frac{kVA \times 1000}{1.73 \times \text{Line - Line Voltage}} \]

<table>
<thead>
<tr>
<th>kVA</th>
<th>208V</th>
<th>240V</th>
<th>480V</th>
<th>4160V</th>
<th>7200V</th>
<th>13200V</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>25.0</td>
<td>21.7</td>
<td>10.8</td>
<td>1.25</td>
<td>.72</td>
<td>.39</td>
</tr>
<tr>
<td>15</td>
<td>41.6</td>
<td>36.1</td>
<td>18.0</td>
<td>2.08</td>
<td>1.20</td>
<td>.66</td>
</tr>
<tr>
<td>30</td>
<td>83.3</td>
<td>72.2</td>
<td>36.1</td>
<td>4.17</td>
<td>2.41</td>
<td>1.31</td>
</tr>
<tr>
<td>45</td>
<td>125.0</td>
<td>108.0</td>
<td>54.1</td>
<td>6.25</td>
<td>3.61</td>
<td>1.97</td>
</tr>
<tr>
<td>75</td>
<td>208.0</td>
<td>180.0</td>
<td>90.2</td>
<td>10.40</td>
<td>6.01</td>
<td>3.28</td>
</tr>
<tr>
<td>112.5</td>
<td>312.0</td>
<td>271.0</td>
<td>135.0</td>
<td>15.60</td>
<td>9.02</td>
<td>4.92</td>
</tr>
<tr>
<td>150</td>
<td>416.0</td>
<td>361.0</td>
<td>180.0</td>
<td>20.80</td>
<td>12.00</td>
<td>6.56</td>
</tr>
<tr>
<td>225</td>
<td>625.0</td>
<td>541.0</td>
<td>271.0</td>
<td>31.30</td>
<td>18.00</td>
<td>9.84</td>
</tr>
<tr>
<td>300</td>
<td>833.0</td>
<td>722.0</td>
<td>361.0</td>
<td>41.70</td>
<td>24.10</td>
<td>13.10</td>
</tr>
<tr>
<td>500</td>
<td>1388.0</td>
<td>1203.0</td>
<td>601.0</td>
<td>69.40</td>
<td>40.10</td>
<td>21.90</td>
</tr>
<tr>
<td>750</td>
<td>2082.0</td>
<td>1804.0</td>
<td>902.0</td>
<td>104.00</td>
<td>60.10</td>
<td>32.80</td>
</tr>
<tr>
<td>1000</td>
<td>2776.0</td>
<td>2406.0</td>
<td>1203.0</td>
<td>139.00</td>
<td>80.20</td>
<td>43.70</td>
</tr>
<tr>
<td>1500</td>
<td>4164.0</td>
<td>3608.0</td>
<td>1804.0</td>
<td>208.00</td>
<td>120.30</td>
<td>65.60</td>
</tr>
<tr>
<td>2000</td>
<td>5552.0</td>
<td>4811.0</td>
<td>2406.0</td>
<td>278.00</td>
<td>160.40</td>
<td>87.40</td>
</tr>
</tbody>
</table>
502 Electric Service Diagrams

**Single Phase, 2-Wire, 120 Volt Service**

```
LINE
120V
NEUTRAL
```

**Single Phase, 3-Wire, 120/240 Volt Service**

```
LINE
120V
NEUTRAL
120V 240V
LINE
```

**Single Phase, 3-Wire, 120/208 Volt "Network" Service**

```
LINE
120V
NEUTRAL
120V 208V
LINE
```

**Three Phase, 3-Wire, 240 Volt Service**

```
AØ
240V
BØ
240V 240V
CØ
```
Three Phase, 3-Wire, 480 Volt Service

AØ

BØ

CØ

480V

480V

480V

Three Phase, 4-Wire Wye, 120/208 Volt Service

AØ

BØ

CØ

208V

208V

208V

120V 120V 120V

NEUTRAL

Three Phase, 4-Wire Wye, 277/480 Volt Service

AØ

BØ

CØ

480V

480V

480V

277V 277V 277V

NEUTRAL

Three Phase, 4-Wire Delta, 120/208/240 Volt Service

AØ

BØ

CØ

240V

240V

240V

120V 208V 120V

NEUTRAL
TYPICAL ELECTRIC METERING INSTALLATION FOR FLEX SPACE BUILDING
WITH ADEQUATE SPACE FOR FUTURE EXPANSION

WHEN REQUIRED BY INSPECTION AUTHORITY HAVING JURISDICTION, MAIN DISCONNECTING MEANS SHALL BE A SCALABLE CIRCUIT BREAKER OR A FUSED SWITCH WITH SECABLE BARRIERS WHICH ENCLOSE ALL UNMETERED CONDUCTORS/CONNECTIONS EXCEPT THE FUSES. REFER TO SECTION 218-219 FOR MORE DETAILS.

CUSTOMER MUST PROVIDE A MEANS TO LOCK OFF ALL THE LINE SIDE SWITCHES AHEAD OF THE CT CABINETS.

LOAD CONDUCTORS MAY BE FED EITHER UNDERGROUND OR OVERHEAD.

REFER TO SECTION 503-3 FOR MORE DETAILS.
TYPICAL METERING INSTALLATION FOR FLEX SPACE BUILDING
WITH ADEQUATE SPACE FOR FUTURE EXPANSION

WHEN REQUIRED BY INSPECTION AUTHORITY HAVING JURISDICTION,
MAIN DISCONNECTING MEANS SHALL BE A SEALABLE CIRCUIT
BREAKER OR A FUSED SWITCH WITH SEALABLE BARRIERS WHICH
ENCLOSE ALL UNMETERED CONDUCTORS/CONNECTIONS EXCEPT THE
FUSES. REFER TO SECTION 21S FOR MORE DETAILS.

SPACE RESERVED FOR FUTURE METERING INSTALLATION

MAIN DISCONNECT
EASY STACK

TRough 14"X14"

M1

CONCRETE PAD (4")
REQUIRED FOR OUTDOOR INSTALLATION

SERVICE RACEWAY
SEE SECTIONS 222 AND 405
FOR INSTALLATION DETAILS

FINISHED FLOOR LINE

CUSTOMER MUST PROVIDE A MEANS TO LOCK OFF ALL
THE LINE SIDE SWITCHES AHEAD OF THE CT CABINETS.

REFER TO SECTION 503-3 FOR MORE DETAILS.

MINIMUM SPACE REQUIRED
FOR METER SOCKET
PLEASE REFER TO SECTION
503-3 FOR MORE DETAILS

LOAD SIDE TO
TELENT SPACE

SPACE RESERVED FOR FUTURE METERING INSTALLATION

FINISHED FLOOR LINE
503-2 Typical Outdoor Metering Installation for a Flexible Space Building
# Minimum Space Requirements for Electric Metering Equipment

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Meter Stack</th>
<th>Self-Contained Meter Socket</th>
<th>CT-Rated Meter Socket</th>
<th>1Ø CT Cabinet</th>
<th>3Ø CT Cabinet</th>
<th>Service Termination Cabinet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical Dimensions (H x W x D)</strong></td>
<td>44&quot; x 36&quot; x 7 1/2&quot; (with Termination Cabinet)</td>
<td>17&quot; x 11&quot; x 7 1/2&quot; (up to 200A 1Ø Service)</td>
<td>20&quot; x 12&quot; x 4 3/16&quot;</td>
<td>20&quot; x 30&quot; x 12&quot;</td>
<td>36&quot; x 42&quot; x 14&quot; (up to 1600A)</td>
<td>72&quot; x 60&quot; x 14&quot; (up to 3000A)</td>
</tr>
<tr>
<td></td>
<td>44&quot; x 42 1/2&quot; x 7 1/2&quot; (Expansion Stack)</td>
<td>19&quot; x 13&quot; x 4 27/32&quot; (up to 200A 3Ø Service)</td>
<td>22&quot; x 13&quot; x 4 27/32&quot;</td>
<td></td>
<td>42&quot; x 36&quot; x 14&quot; (up to 3000A)</td>
<td>94&quot; x 60&quot; x 40&quot; (above 3000A)</td>
</tr>
</tbody>
</table>

**Minimum Space Required for Meter Socket (H x W):**
- Note 3: 24" x 18" (200A)
- 20" x 14"
- N/A
- N/A
- N/A

**Minimum Clear Work Space (W x D):**
- Note 1: 36" x 48" (Note 1)
- 36" x 48" (Note 1)
- Notes 1 and 2
- Notes 1 and 2
- Notes 1 and 2

**Meter Height from Finished Floor Line:**
- 28" to 72"
- 42" to 60"
- 42" x 60"
- N/A
- N/A
- N/A

**Notes:**
1. A minimum safe space 36" wide (or width of equipment, whichever is greater) and 48" in front of all metering equipment are required. Do not install a metering cabinet or any related equipment that will violate the stated work space requirements. Equipment doors/covers must swing open unobstructed.
2. A minimum clear space of 6" on both sides of CT cabinet is required.
3. For meter stack, refer to sections 321 and 402.
4. For services above 200A, consider the dimensions of CT cabinets stated above. CT-rated metering shall be applied to all commercial services rated above 200A.
5. For 3000A service, refer to Section 405.
6. A minimum headroom of 75" inside the metering room shall be maintained. However, if gas meters will be installed in the same room, a minimum headroom of 8' shall be applied.
7. All space requirements stated above shall be considered by the customer when designing the metering room. All future metering needs should be considered.
8. BGE shall install the metering equipment based on the existing approved load conditions. In the event that the customer applies for an upgrade of service (above 200A), the customer shall provide adequate space for all metering equipment upon recommendation and approval by BGE and local jurisdiction having authority.
9. Consult the company for these installations.
10. Load balancing required. Refer to section 103-4.

Refer to Sections 200, 300, 400, 500 and 600 for more details.
504 Backup Generators and Transfer Switches

During power outages some customers utilize backup (portable or permanently installed) electric generators to provide emergency power to their business or residence. To ensure the safety of field personnel, BGE requires that these generators do not back feed our electric distribution system. Back feed conditions can be prevented with the installation of a transfer switch after the BGE metering device. A properly installed transfer switch isolates generator supplied power from the BGE service conductors. Installation of a transfer switch should be made by a qualified electrician and must comply with all applicable laws, the National Electrical Code (NEC) and be inspected by the local authority having jurisdiction.

NOTE: Currently, socket-based transfer switches that install between the meter and meter socket are not approved for use on BGE’s electrical distribution system.

Isolation between the generator and service conductors is required because BGE utilizes transformers to reduce or “step down” voltage on our service conductors before providing power to the customer’s premise. These transformers can also work in reverse and “step up” voltage if fed in the opposite direction from a generator that is not isolated from BGE wiring. An electrical back feed can cause equipment and property damage, and may result in severe injury to utility personnel.

In addition to protecting BGE employees and equipment, a properly installed transfer switch also protects the customer’s electrical system. Improperly connecting a generator output directly into a panel box or an electrical outlet can be dangerous. This could cause damage to existing premise wiring and also result in significant damage to the generator once BGE power is restored.

Shown below is a typical residential transfer switch installation:
505 Small Generator Interconnection

Small generator interconnection is a general name for the process of registering and connecting small scale power generation equipment to BGE’s electric utility distribution system. Therefore, the customer may back feed BGE’s distribution system. In addition, special metering, often referred to as “net metering”, may be required to comply with tariff requirements associated with some of these installations.

Small generator interconnection equipment may include:

- Wind turbines
- Photovoltaics (PV) or solar panels
- Micro-turbines
- Small gas-turbine generator
- Fuel cells
- Small internal combustion-engine generator (ICE)
- Small steam turbine units (cogeneration)

Refer to www.bge.com, Choosing a Supplier/Your Energy Supply Options/Customer-Generated Power under My Account for more information. This website provides detailed information regarding the application process and specific technical requirements.

Notes (disconnect requirements for small generator interconnections):
1. Outdoor disconnecting means shall be accessible to BGE personnel and capable of being locked in the open position. Its status (open or closed), must be clearly indicated.
2. Disconnecting means should be located within ten (10) feet of the meter socket.
3. Indoor meter: Consult BGE for appropriate disconnect location.

A typical small generator interconnection installation (solar panel in this example) is shown below.
506 Meter Requirements Review - Small Generator Interconnection

- If standard metering requirements have been modified, determine if BGE/Exelon Commitment verification is required to be completed. If it needs to be completed, follow instructions below.
- Otherwise, follow schedule below.

THE EXELON REPORTING COMMITMENT
Applicable to Smart Metering & Technology (SMT), a verification shall be performed to determine if there has been changes to BGE’s standards that would require additional metering equipment or monitoring equipment for customers with behind the meter storage. This verification shall be performed on a three-year period.

INSTRUCTIONS FOR VERIFICATION

Click here for the location of the form.
601 Combined Gas and Electric Metering

601-1 Combined Metering – General

Meter Protection

FOR METER PROTECTION STANDARDS, REFER TO THE METER PROTECTION SECTION IN THE BEGINNING OF THE MANUAL.

General Information
The purpose of this section is to address the location and installation of combined metering equipment for town houses and single-family homes.

This combined metering equipment is for conditions which have loads up to, but not larger than:

- Electric Service: 120/240 volts at 200 amps
  AND / OR
- Natural Gas Service: 295 CFH at standard delivery or 330 CFH at 2 PSIG delivery

However, this section is to be used in conjunction with the other sections in this manual. Please be familiar with the other sections as well. If the loads are larger than those listed above, then follow the information in the other sections of this manual.

601-2 BGE Outdoor Metering Location Standard

In conjunction with the BGE Electric and Gas Service Tariffs, BGE has developed a "BGE Outdoor Metering Location Standard". All meters are to be installed on the outside of buildings, except as provided for in the Exceptions to the BGE Outdoor Metering Location Standard section below. All meter locations are agreed upon by the Customer and the Company in advance of construction and are subject to final approval by the Company. Contact your BGE representative before any construction begins.

Failure to comply with the BGE Outdoor Metering Location Standard will prevent BGE from providing electric/natural gas to the requested service location.

Note: An acceptable meter location shall be free of any conditions detrimental to the metering equipment, and such location shall not create a hazard or inconvenience. The customer shall maintain at least three (3) feet of unobstructed space in front of the meter, and such space shall be free of any source of ignition or heat which may damage the meter or related equipment. The sole exception to the three (3) feet of unobstructed space in front of the meter is the use of bollards for protection from vehicular traffic where required; see Meter Protection Section of this manual.

The space provided for meters, regulators and service risers shall be clear of all obstructions, such as shutters, doors, and rainspouts, and the placement of obstructions such as concrete equipment pads, shrubbery, porches, patios, decks and gardens shall not interfere with the installation and servicing of the metering equipment or reading of the meter. Meters shall not normally be located over porches or patios.
The following excerpt is the “Location of Service Equipment” from the BGE Gas Service Tariff; Part 2, Section 6. This is provided for reference in outlining the BGE Metering Location Standard.

**BGE Gas Service Tariff; Section 6  
6. Location of Service Equipment**

**6.1 General:** Under normal conditions an outdoor location is required. Meter locations are agreed upon by the Customer and the Company, subject to final approval by the Company.

An acceptable meter location shall be free of any conditions detrimental to the metering equipment, and such location shall not create a hazard or inconvenience. The Customer shall maintain at least three (3) feet of unobstructed space in front of the meter, and such space shall be free of any source of ignition or heat which may damage the meter or related equipment. The Company may require the Customer to provide, at the Customer's expense, suitable protective equipment for the meter or exposed service riser.

Where more than one Customer is to be supplied, each meter shall be readily accessible to the Customer served by it and to the Company. The fuel lines shall be so installed that the meters may be grouped at one location.

In the event it becomes necessary to change an existing service entrance or meter installation the location shall conform to these rules except that existing indoor meters may remain indoors.

**6.11 Outdoor Location:** An outdoor location is generally required for meter installations not exceeding six (6) meters.

Space shall be provided for meters, regulators and service risers clear of all obstructions such as shutters, doors and rainspouts, and so that the placement of shrubbery, flower beds and gardens will not interfere with meter installation, servicing, or reading. In no event shall meter equipment extend beyond the Customer's property line.

**Exceptions to the BGE Outdoor Metering Location Standard**

The BGE Gas Service Tariff and the BGE Electric Service Tariff allow for certain indoor locations:

Meter rooms with greater than 6 meters from a single service point are allowed.

**Exception Approval Requirements**

Any other request for indoor locations requires the BGE representative to obtain formal written approval from the COO, VP of Gas Operations and the VP of Electric Operations prior to construction.
**601-3 Town House Combined Meter Locations Requirements**

Combined outside metering is BGE’s required construction standard. All efforts should be made to utilize outside locations. When locating gas and electric meters outside, there are specific requirements that should be followed. Typically, the meters are set at the location where the service terminates at the building being served. See Figure 601-3.

Outside metering location must be used if one of the following conditions exists:

- Clear wall space is available: 24” W x 57” H (stacked meter configuration – wall mount electric meter socket). See Section 601-5.

OR

- Clear wall space is available: 36” W x 47” H (side by side meter configuration – pedestal electric meter socket). See Section 601-6.

OR

- There is adequate clear wall space to split the meters and install them separate from each other. The gas meter requires 15” W x 36” H and the electric meter requires 17” W x 57” H (200 Amp wall mount box) or 16” W x 47” H (200 Amp pedestal box) of clear wall space. See Section 601-7.
Standard service line extension to a residence shall extend not more than 75 feet for a single-family home and 30 feet for a town house from the property line where the service enters the property to be served to the nearest corner of the building. Distances greater than these are non-standard, and all additional costs will be borne by the customer/builder. For additional information, please consult with your BGE Representative. (Reference: BGE Electric Service Tariff, Section 8.23)

A. The outdoor residential customer meters shall be placed as close to the exterior building wall as possible for both new service lines and service lines that are replaced. 
(Reference: COMAR 20.55.09.07.D.)

B. The residential gas metering assembly installed outside shall be located on a building either one (1) foot inward from the building edge along the "front", or no more than five (5) feet deep on the building side(s). See Figure 601-4.

Note: The "front of the building" is defined by the portion of the building facing the utilities, which typically run along the street.
602 Outdoor Metering Installation Options

602-1 Stacked Gas & Electric Installation

The following are general requirements for combined meters in a stacked installation. See Figure 602-2, for specific installation requirements, reference the electric and/or the gas metering sections of this manual.

- This installation is for mounting on a "rigid" wall surface such as concrete, brick, or stone. The installation may also be allowed on a "flexible" wall surface such as siding only if a backer board is applied. Please contact your BGE representative for details if a backer board is used.

- The above final grade minimum clear space requirements are 24" W x 57" H x 58" out from the finished wall.

- The below final grade minimum clear space requirements are 24" W x 40" H x 58" out from the finished wall.

- A minimum of a 12" radial separation between the gas line and the electric, CATV, communication...lines is required.

- Finishing wall products such as siding, brick, stone or other materials shall protrude no more than one (1) inch from the vertical face of the foundation. This will provide adequate clearance between the BGE gas meter bracket / electric riser and the foundation wall.

Note: See Section 602 for Proposed Penetration zones to bring the house lines to the BGE metering equipment.
Figure 602-1: Stacked Installation
602-2 Side-by-Side Installation

The following are general requirements for combined meters in a Side-by-Side installation. BGE offers two versions for Side-by-Side installations. See Figures 602-1A and 602-1B on the following page. For specific installation requirements, reference the electric and/or the gas metering sections of this manual.

- Use this installation standard when 24” W x 57” H of clear, rigid wall space above the final grade is not available. A typical example of this is a masonry foundation that transitions to vinyl, aluminum, or wood siding within 3-4’ of grade. Note that the bracket for the meters is mounted to the "rigid" building foundation.

- The above final grade minimum clear space required is 36’ W x 47” H x 58” out from the finished wall.

- The below final grade minimum clear space requirements are 36” W x 40” H x 58” out from the finished wall.

- A minimum of a 12” radial separation between the gas line and the electric, CATV, communication...lines is required. (Reference: National Electric Safety Code - 2017 Edition, Section 354.A.2)

- Finishing wall products such as siding, brick, stone or other materials shall protrude no more than one (1) inch from the vertical face of the foundation. This will provide adequate clearance between the BGE gas meter bracket / electrical pedestal box and the foundation wall.

Note: See Section 602 for proposed penetration zones to bring the house lines (gas and electric) to the BGE metering equipment.
A. Electric Meter on the Left Option:

![Figure 602-2A](image)

B. Electric Meter on the Right Option:

![Figure 602-2B](image)
602-3 Separated Installation

The following are general requirements for meters installed separately (not in combination) from each other. See Figures 602-3, plus 602-3A and 602-3B on the following pages.

Figure 602-3 shows a typical town house design which does not allow enough clear wall space for either the stacked or the side-by-side “combined” meter installations. For more specific installation requirements in addition to this section, reference the gas and electric metering sections of this manual.

![Figure 602-3]
A. General Guidelines of a Separated Installation – gas meter & electric wall mounted socket box.

- The electric wall mounted box installation is for mounting on a "rigid" wall surface such as concrete, brick, or stone. The installation may also be allowed on a "flexible" wall surface such as siding only if a backer board is applied. Please contact your BGE representative for details if a backer board is used.

- The above final grade MINIMUM clear space requirements for the gas meter assembly are 15" W x 36" H x 56" out from the finished wall and for the electric wall mounted box are 17" wide x 57" H x 56" out from the finished wall.

- The below final grade MINIMUM clear space requirements for the gas meter assembly are 15" wide x 40" H x 56" out from the finished wall and for the electric wall mounted box are 17" wide x 40" H x 56" out from the finished wall.


- Finishing wall products such as siding, brick, stone or other materials shall protrude no more than one (1) inch from the vertical face of the foundation. This will provide adequate clearance between the BGE gas meter bracket / electric riser and the foundation wall.

Note: See Section 602 for Proposed Penetration zones to bring the house lines to the BGE metering equipment.

Figure 602-3A
B. General Guidelines for a Separated Installation – gas meter & electric pedestal box

- Use this installation standard when 24" W x 57" H of clear, rigid wall space above the final grade is not available. A typical example of this is a masonry foundation that transitions to vinyl, aluminum, or wood siding within 3’ to 4’ of finished grade. Note that the brackets for the meter pedestal are mounted to the "rigid" building foundation.

- The above final grade MINIMUM clear space required for the gas meter assembly are 15” W x 36” H x 56” out from the finished wall and for the electric pedestal are 16” W x 47” H x 56” out from the finished wall.

- The below final grade MINIMUM clear space requirements for the gas meter assembly are 15” W x 40” H x 56” out from the finished wall and for the electric pedestal are 16” W x 40” H x 56” out from the finished wall.

- A minimum of a 12” radial separation between the gas line and the electric, CATV, communication...lines is required. (Reference: National Electric Safety Code - 2017 Edition, Section 354.A.2)

- Finishing wall products such as siding, brick, stone or other materials shall protrude no more than one (1) inches from the vertical face of the foundation. This will provide adequate clearance between the BGE gas meter bracket / electric pedestal box and the foundation wall.

Note: See Section 602 for proposed penetration zones to bring the house lines (gas and electric) to the BGE metering equipment.

Figure 602-3B
602-4 Minimum Building Clearance Requirements for Combined Metering

When the gas and the electric meter are installed in combination on an outside wall, specific space requirements and clearances must be met. BGE offers three (3) meter options for these installations: Stacked, Side-by-Side and Separated. The following (Figure 602-4) illustrates the various space requirements and clearances for each option.

The Figure and Table 602-4 shows locations on the building(s) that has a dimension “H” and "W". Depending on which option is selected, the following minimum space is required. Note that only one combined meter installation area is required for each residence.

<table>
<thead>
<tr>
<th>Installation Options (both meters outdoors)</th>
<th>Minimum Width Required (W)</th>
<th>Minimum Height Required (H)</th>
<th>Minimum Clear Space Required in Front of Meter(s) (from wall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacked</td>
<td>24”</td>
<td>57”</td>
<td>56”</td>
</tr>
<tr>
<td>Side-by-Side</td>
<td>36”</td>
<td>47”</td>
<td>56”</td>
</tr>
<tr>
<td>Separated gas with electric socket box</td>
<td>Gas = 15”</td>
<td>Gas = 36”</td>
<td>56”</td>
</tr>
<tr>
<td></td>
<td>Electric = 17”</td>
<td>Electric = 57”</td>
<td></td>
</tr>
<tr>
<td>Separated gas with electric pedestal</td>
<td>Gas = 15”</td>
<td>Gas = 36”</td>
<td>56”</td>
</tr>
<tr>
<td></td>
<td>Electric = 16”</td>
<td>Electric = 47”</td>
<td></td>
</tr>
</tbody>
</table>

Figure 602-4
602-5 Proposed Penetration Zones

To aid in the installation of stacked or side-by-side gas and electric meters, proposed penetration zones are provided as a reference for service contractors. These zones detail areas in which electricians and plumbers should bring electric load cables (service entrance on load side of meter) and gas fuel lines through exterior walls so that they interface easily with combined BGE metering equipment. See Figures 602-5-A, 602-5-B, and 602-5-C on the following pages.

The following are general requirements for the penetration zones:

1. Electric load cables should be in the electric zone and the gas fuel line should be in the gas zone. Neither the electric load cable nor the gas fuel line shall be in the same zone.

2. Side-by-Side installation:
   a. If the electric pedestal box is mounted to the right of the gas meter, the electric load cables must exit on the right side of the pedestal. See Figure 602-5-B.
   b. If the electric pedestal box is mounted to the left of the gas meter, the electric load cables can exit either side of the pedestal. See Figure 602-5-C.

3. Gas fuel line:
   a. If rigid piping is used, the line should not extend more than 4” horizontally from the finished wall surface. This distance will provide adequate clearance for the addition of elbows and fittings to reach the Customer’s Main Gas Valve (point of service connection).
   b. If flexible piping is used, it should be of adequate length to prevent kinking when connected to the Customer’s Main Gas valve (point of service connection). Plumbers should be fully aware of, and follow, the installation requirements associated with the flexible piping they are installing.

4. For the electric load cable, electricians should provide adequate length to extend from the finished wall surface to allow a minimum bending radius of 4” to be achieved when it is installed inside of the meter box.

5. Follow the appropriate codes such as the National Fuel Gas Code (NFPA 54), the National Electrical Code (NEC), and the codes of the local jurisdiction when placing electrical load and/or gas fuel lines through the building walls.

The rules of BGE for the customer’s installation are in addition to and in no way a waiver of the rules of the inspection authority having jurisdiction. (Reference: Electric & Gas Tariff Sections 4.3)
A. Proposed "Penetration Zones" for a Stacked Installation or Separated Installation (Electric Socket Box)

Figure 602-5-A
B. Proposed "Penetration Zones" for a Side-by-Side Installations or Separated Installation (Electric Pedestal)

Figure 602-5-B

Figure 602-5-C
603 Metering Configuration for Town House (Only)

603-1 General

This section is a summary of BGE’s construction practices for gas and electric meter installations for town houses.

Please contact your BGE Representative before construction.

603-2 Standard Construction: Both Gas and Electric Meters Installed Outdoors

This is BGE’s required configuration. All construction efforts should be made to use this configuration.

Meters will be installed on the front of the building (side facing service lateral), or within five feet of the front corners.

Configuration A will be used if one of the following conditions exists:

- Clear wall space is available: 24” W x 57” H (stacked meter configuration – wall mount electric meter socket). See Section 602-1.
- Clear wall space is available: 36” W x 47” H (side by side meter configuration – pedestal electric meter socket). See Section 602-2.
- There is adequate clear wall space to split the meters and install them separate from each other. The gas meter requires 15” W x 36” H and the electric meter requires 17” W x 57” H (200 Amp wall mount box) or 16” W x 47” H (200 Amp pedestal box) of clear wall space. See Section 602-3.
604 Improper Installations

The following pictures are examples of improper combined meter installations.

A. In the picture below, there are several improper installation practices shown. The cause was the back-fill or final grade was placed higher than the local jurisdictional requirement.
   - Riser valve is buried
   - Regulator vent has less than 12” clearance to final grade
   - Gas meter is buried
   - Electric meter box cover opening is buried
   - Due to incorrect meter placement to grading, the downspout can cause freezing issues
B. The following example shows two gas meters with improper frontal clearances.

- The clearance in front of the meter on the left is inadequate. The fence impedes the 3’ space requirement.
- The clearance in front of the meter on the right is also inadequate. A clear space of 3’ between mature shrubbery and the meter is required. By the time the shrubbery matures, it is likely to cover the meter.
C. In the following picture, a meter is shown that was mounted improperly.

- The meter is located on the neighbor's wall. Metering equipment from one customer may not be attached to or located on another's property.
D. The following pictures show an improper stacked meter installation.

- Due to the penetration location of the load cable, the meter socket had to be installed higher than normal. Because of this, the customer cannot access the light fixture to install a light bulb.
701 Gas General

701-1 Gas General

BGE supplies natural gas service to customers throughout Central Maryland. Service is provided to residential, commercial, and industrial customers. Each customer is supplied gas service through a service line, which terminates at a gas metering assembly. It is BGE's policy to locate meters outside and as close to the service side of the building (generally the front) as practical.

BGE owns and maintains all service piping and facilities (including the gas metering assembly) up to the “Point of Service”. This maintenance includes, but is not limited to, leak survey, corrosion monitoring, painting, and relocation of the piping to accommodate building renovations. This is applicable whether the gas metering assembly is located outside or inside the building being served.

Note: The customer may repaint the exposed piping and meter for aesthetic reasons but must take care not to paint over any dials, reading devices, or vent line openings. If you have questions, please call our Customer Care Center at 1-800-685-0123.

BGE only uses new materials in the installation of gas metering assemblies. The reuse of materials and components is prohibited except where reconditioned for use under the direction of Meter Engineering & Standards.

BGE gas metering assemblies always consist of uniform steel pipe and steel or malleable fittings. Plastic, cast iron, lead or copper pipe/tubing are not used for gas metering assemblies. Please check with the applicable county/city codes as to allowable materials for customer piping.

Prior to beginning construction please review the Meter Protection section in the beginning of this manual.
701-2 Location of Underground Facilities

Call at least 48 hours before you dig, plant, drill, blast, or grade. A utility representative will mark underground facilities at your site free of charge.

Call Miss Utility at 811 or 1-800-257-7777 (7:00 AM - 5:00 PM) 24 hr. service in case of emergency.

Color codes appearing on wire flags or as spray painted stripes on the grass, sidewalk or street mark underground utility lines. Whether you’re planning a large construction project or minor landscaping, call Miss Utility at 811 or 1-800-257-7777 before you dig and exercise caution where you see these codes:

![Color Codes Chart]

701-3 Properties of Natural Gas

- Natural Gas contains no toxic material before being burned; however, it will not support life.
- BGE's natural gas is rated at 1040 BTU per cubic foot; vapor density 0.6 (air is 1.0).
- Natural gas requires a temperature of 1200°F to ignite.
- The flammability range of natural gas is between 5 and 15 percent in air.
- Natural gas requires 10 times as much air as gasoline to burn properly.
- The products of combustion of natural gas will contain carbon dioxide, nitrogen, and water vapor. All are harmless.
- Any hydrocarbons that lack air while burning will produce carbon monoxide.
- Carbon monoxide is colorless, odorless, tasteless, and very deadly.
701-4 Meter & Installation Unit - Natural Gas Responsibilities

The following is a list of contacts with groups involved

Gas Meter & Installation Unit Supervisor:
Mike Simmons, 410-470-7095, Michael.Simmons@constellation.com

Measurement Specialist for (North) grids 1 & 2:
Bill Veaux, 410-470-6783, William.T.Veaux@bge.com

Measurement Specialist for (South) grids 3 & 4:
Kevin Kline, 410-470-9021, Kevin.Kline@bge.com

Supervisor, Field Meter Test – Gas:
John Shrader, 410-470-0430, John.Shrader@bge.com

Measurement Specialist for grids 1, 2, 3, & 4:
Al Brazil, Albert.W.Brazil@bge.com

Zone 1&2 and 3&4 are divided
- North and South by Baltimore Street
- East and West by Charles Street
### 701-5 Other BGE Contacts

<table>
<thead>
<tr>
<th>For inquiries, arrangements or Information pertaining to:</th>
<th>Residential, Commercial, &amp; Industrial</th>
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<tr>
<td>New services - Gas or Electric</td>
<td>New Business and Customer Contact</td>
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<tr>
<td>Pending jobs or construction</td>
<td>410-637-8713 (7:00 AM - 4:30 PM)</td>
</tr>
<tr>
<td>Relocation of Company equipment</td>
<td>800-233-1854 (7:00 AM - 4:30 PM)</td>
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<tr>
<td>Removal of Company equipment</td>
<td>Fax 410-712-9323</td>
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<tr>
<td>Meter Locations</td>
<td>Baltimore Gas &amp; Electric Company</td>
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<td>New Construction Services</td>
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<td>General Conservation Information</td>
<td>410-265-4100</td>
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<td>Efficient utilization of energy</td>
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</table>
702 Gas Supply Conditions

702-1 Characteristics of Supply

BGE has a contract with the State of Maryland to supply natural gas to customers in our service territory. This contract is in a form of a tariff. The following excerpt from the BGE Gas Service Tariff, Part 2, Section 1 describes the characteristics of this supply.

---

**BGE Gas Service Tariff; Section 1**

**1. Characteristics of Supply**

1.1 **General:** The Customer should consult the Company as to the availability of the Company's service at a particular location before proceeding with plans for any installation whether new, additional, replacement, or a transfer from one location within the territory to another.

1.2 **Standard Service:** The heating value of the gas supplied will vary from time to time due to changes in the composition of the Company’s sendout. The composition of the gas sendout will consist of natural gas, liquefied natural gas, propane-air gas, and synthetic gas in varying proportions depending upon the gas supply situation at any given time. The normal range of heating value will be from 1000 to 1200 Btu per cubic foot (cu. ft.) of gas.

   Standard delivery to the Customer is at low pressure. Where, at the discretion of the Company, gas is supplied at higher than standard delivery pressure, the meter reading is corrected from the absolute delivery pressure (14.7 atmospheric pressure) in pounds per square inch absolute to a pressure base of 14.85 pounds per square inch absolute. This correction is accomplished by applying a fixed pressure correction factor to the meter reading or by a base pressure corrector attached directly to the meter.

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BGE has six pressure systems to deliver natural gas which are detailed later in this section. The Low Pressure system requires no regulator. Meter sizing capacity must meet or exceed customer’s gas demand with 0.5” w.c. allowable pressure drop across the meter assembly. Other pressure systems require regulator(s) to control delivery pressure at prescribed level for all flow rates up to maximum demand.
702-2 Delivery Pressure

The gas pressure which BGE provides to the customer and upon which the customer’s piping must be sized is called the “Delivery Pressure”. For a summary of the BGE pressure deliveries, see Table 702-2 below. The following text provides more detailed information.

Table 702-2

<table>
<thead>
<tr>
<th>BGE Pressure Systems</th>
<th>BGE Standard Delivery Pressure (3” w.c. guarantee)</th>
<th>Higher than Standard Delivery Pressure* - Non-Fixed Factored Billing</th>
<th>Higher than Standard Delivery Pressure - Fixed Factored Billing</th>
<th>Higher than Standard Delivery Pressure** - Line Pressure Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>MP</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>14” w.c., 1,000 to 23,000cfh</td>
<td>Not available</td>
<td>1.46 psig to 10 psig (1.46 psig minimum)</td>
</tr>
<tr>
<td>HP</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>14” w.c. to 15 psig</td>
<td>2 psig, 0 to 12,375cfh or 5 psig, 0 to 14,600 cfh</td>
<td>20 to 99 psig (20 psig minimum)</td>
</tr>
<tr>
<td>OHP</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>14” w.c. to 100 psig</td>
<td>2 psig, 0 to 12,375cfh or 5 psig, 0 to 14,600 cfh</td>
<td>120 to 300 psig (120 psig minimum)</td>
</tr>
<tr>
<td>436</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>14” w.c. to 300 psig</td>
<td>2 psig, 0 to 12,375cfh or 5 psig, 0 to 14,600 cfh</td>
<td>345 to 436 psig (345 psig minimum)</td>
</tr>
<tr>
<td>720</td>
<td>3” w.c. - 10” w.c. (max)</td>
<td>14” w.c. to 300 psig</td>
<td>2 psig, 0 to 12,375cfh or 5 psig, 0 to 14,600 cfh</td>
<td>345 to 720 psig (345 psig. minimum)</td>
</tr>
</tbody>
</table>

* Higher than Standard Delivery Pressure may be requested if the load is 1,000 cfh or greater

** BGE does not provide any pressure regulation on Line Pressure Delivery

Note: 27.7” water column (w.c.) = 1 PSIG (Pounds Per Square Inch Gauge)

A. Standard Delivery Pressure - for design purposes Standard Delivery Pressure has been established as 3” w.c. minimum at the outlet of the gas metering assembly when service is provided off of the Low Pressure System. When gas is supplied to the customer from other than the Low Pressure System a regulator(s) must be used by BGE to control the delivery pressure at a minimum of 3” w.c. at the Customer’s Main Gas Valve (point of service connection). Common settings are 6” w.c. for residential customers and 7” w.c. for commercial and industrial customers. For all pressure systems, Standard Delivery Pressure shall not exceed 10” w.c. at the outlet of the meter. Standard Delivery Pressure assemblies up to 23,000 CFH demand are shown in this manual and are subject to “Standard Designs”. Capacities in excess of 23,000 CFH require individual designs by BGE.


B. Above Standard Delivery Pressure - For loads of 1,000 cfh and greater, BGE may supply gas to a customer at higher than Standard Delivery Pressure (greater than 10” w.c.) from other than the Low Pressure Gas Distribution System.

- From the Medium Pressure System, delivery pressure may be 14” w.c. (0.5 PSIG) for capacities from 1,000 to 23,000 cfh or available main pressure. For capacities requirements greater than 23,000 cfh the Customer must take available line pressure.
- From the High Pressure and Over High Pressure System, delivery pressure can be up to the service terminal pressure. Certain guidelines apply to availability; please refer to your BGE representative for current criteria.
Capacities of meters and regulators operating at Above Standard Delivery Pressure will incorporate the use of fixed factor billing with regulators approved by BGE Meter Engineering & Standards (MES) for this purpose. Where a MES approved regulator is not available, meters must be equipped with a pressure-compensating instrument. All instrumentation must be of a type approved by MES and designed to compensate to a pressure base of 14.85 PSIA.

C. Two and Five PSIG Delivery Pressure - The Company shall provide 2 and 5 PSIG delivery pressure to customers without the design limitations that restrict the availability of other elevated delivery pressures. As stated, 2 and 5 PSIG delivery pressure can be obtained from the High Pressure and Over High Pressure gas distribution systems. In order to provide 2 and 5 PSIG delivery pressure the customer’s interior piping system requires approval from the local authority having jurisdiction. Delivery Pressures of 2 and 5 PSIG assemblies up to 25,875 CFH demand are shown in this manual and are subject to “Standard Designs”. Capacities in excess of 25,875 CFH require individual designs by BGE. These pressure systems are not available in all areas, please check with your BGE Representative.

702-3 Capacity Design

The capacity design of a gas metering assembly is predicted on the ability to meet two conditions:

A. To provide adequate flow at sufficient delivery pressure to meet the customer’s expected gas load under BGE’s minimum service terminal pressures. See Table 702-3.

B. To provide safe emergency levels of customer house-line pressure under the worst conditions, namely, BGE’s maximum main/service terminal pressure, and complete regulator failure. Protection may be afforded by pressure relief or monitor control. Maximum main/service terminal pressure is taken to be maximum allowable operating pressure of the main.

<table>
<thead>
<tr>
<th>BGE Pressure System</th>
<th>BGE Minimum Main Pressure</th>
<th>BGE Maximum Main Pressure</th>
<th>BGE Minimum Service Terminal Pressure</th>
<th>Allowable Pressure Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP</td>
<td>4.0” w.c.</td>
<td>10” w.c.</td>
<td>3.5” w.c. (0.13 psig)</td>
<td>0.5” w.c.</td>
</tr>
<tr>
<td>MP</td>
<td>2 psig</td>
<td>10 psig</td>
<td>1.46 psig</td>
<td>0.54 psig</td>
</tr>
<tr>
<td>HP</td>
<td>25 psig</td>
<td>99 psig</td>
<td>20 psig</td>
<td>5 psig</td>
</tr>
<tr>
<td>OHP</td>
<td>125 psig</td>
<td>300 psig (varies)</td>
<td>120 psig</td>
<td>5 psig</td>
</tr>
<tr>
<td>436</td>
<td>350 psig</td>
<td>436 psig</td>
<td>345 psig</td>
<td>5 psig</td>
</tr>
<tr>
<td>720</td>
<td>350 psig</td>
<td>720 psig</td>
<td>345 psig</td>
<td>5 psig</td>
</tr>
</tbody>
</table>
702-4 Conditions of Supply

BGE provides gas service to customers based upon the conditions set forth in the Maryland Public Service Commission - BGE Gas Service Tariff. The following excerpt is the “Conditions of Supply” of the BGE Gas Service Tariff; Part 2, Section 2. This is provided for Reference in outlining our general conditions of service.

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**BGE Gas Service Tariff; Section 2**

2. **Conditions of Supply**

2.1 **Limitations on Extensions:** Service is supplied only where, in the opinion of the Company, adequate service is available or can be made available under the provisions of these rules.

   The Company’s obligation to extend its facilities is limited to the assumption of new investment to the extent warranted by the revenue anticipated from the business to be supplied.

   Where the business in prospect does not warrant the expenditure required to serve it, the Company determines from the circumstances of each case, what financing shall be required of the Customer, subject to the approval of the Commission.

2.2 **Supply Points:** It is the standard practice of the Company to provide (subject to the provisions of Sec. 8 Extensions):

   (a) One service
   1. for all requirements of the Customer on a single property; where the supply is for his use in group of buildings, the supply point is located, wherever practicable, at a location central to the group;
   2. for each building on the Customer’s property, upon request, provided the service to any building is in each instance for the major requirements of that building;
   3. for any building occupied by two or more Customers;

   (b) One meter (or metering unit) - for each Customer at each supply point; where two or more Customers are supplied from one service, a centralized meter location is required wherever practicable. Each meter shall have a separate application of the schedule.

   Where, in the Company’s judgment and under conditions specified by it, more than one service is required for a building or pair of adjoining buildings, the Company provides such additional service upon request and upon payment by the Customer to the Company of the charges stated in Sec 8.32. Each meter shall have a separate application of the rate schedule.

   A group of buildings with interconnected passageways is considered as one building.

   Where, under unusual conditions, more than one service (supply point) is necessary to supply the Customer’s requirements for large connected loads on property comprising single or contiguous land parcels, the Company provides such service upon request under standard extension provisions. Whenever the Customer requests and the Company in its judgment finds it practicable to provide more than one service on his property, the service use is metered at each supply point. The registrations of these meters are combined and the Customer is billed for the total use, computed as if all service had been furnished through one service on a single application of Schedule C, provided one of the supply points requires metering capacity of not less than 150 therms per hour and each additional supply point requires metering capacity of not less than 50 therms per hour. In determining contiguity hereunder of parcels abutting opposite sides of public or private roads or other ways, the boundaries of such parcels shall be considered as extending to the center of such roads or ways.
2.3 **Curtailment of Supply:** The supply of gas is subject to any orders of Federal or State authorities establishing any priority of or limitations to service. In the event a curtailment is required, the Company will implement limitations to supply in accordance with the Natural Gas Curtailment Plan in Appendix A.

2.4 **Refusal or Discontinuance of Supply Cause:** The Company may refuse or discontinue service and remove its property without being liable to the Customer, or to tenants or occupants of the premises served, for any loss, cost, damage or expense occasioned by such refusal, discontinuance or removal, for any of the following reasons.

(a) Customer’s failure to comply with any of the provisions of the contract, or any applicable regulations of the Commission, or any of the Company’s applicable rules or practices currently in effect.

(b) Customer’s nonpayment of bill within the net-payment period, and then after reasonable attempt to effect collection of the bill plus the applicable Late Payment Charge, including written notice of at least 3 days exclusive of Sundays and holidays.

(c) Customer’s failure to provide a deposit to insure payment of bills, when requested by the Company under the provisions of Sec. 7.7.

(d) Customer’s failure to pay any of the regular monthly installments under payment plans for extensions. (The unpaid deferred charges shall thereupon become due and payable.)

(e) Customer’s failure to maintain his equipment in safe condition, in the judgment of the Company.

(f) Customer’s failure to permit Company or its agents reasonable access to its equipment located on or in the customer’s premises.

(g) Withdrawal or termination of the proper permits, certificates or rights-of-way.

(h) Removal of the Customer.

(i) Evidence of fraud, by any method, including the diversion of gas around the meter.

(j) Unauthorized adjustment of or tampering with Company’s equipment.

(k) Use of gas for prohibited purposes (outdoor lighting) under Sec. 402 of the Powerplant and Industrial Fuel Use Act of 1978.

(l) Customer’s use of his equipment in a manner judged by the Company to adversely affect its equipment or its service to others.

The Company may discontinue service without notice for reasons (e), (i), (j), and (l) above.

2.4.1 **Reconnection Charge:** Where the Company has discontinued service for nonpayment of bill or for other reasons listed in Sec. 2.4, the Customer is subject to the following charge, payable at a Company business office, as a condition of resuming service at the same location or at a different location:

(a) Where the disconnection was made at the meter location without the necessity of legal action-

$20.00 where the reconnection can be made under routine scheduled working conditions, or
$30.00 where the Customer requires reconnection on the same day on which, before 1 p.m., cause for discontinuance is removed, except on Saturday and on the day before a Company holiday,

(b) where the Company was unable to obtain access to the meter and the disconnection was made at other than the meter location or at the meter location as a result of legal action, $70.00 without regard to the conditions of reconnection but, other than on Saturday and the day before a Company holiday, cause for discontinuance must be removed before 1 p.m. to have service reconnected on the same day.

2.42 Field Collection Fee: Where the Customer makes a payment to a Company Representative at the Customer’s premises to avoid discontinuance of service, the Customer is subject to a $15.00 fee per occurrence.

2.5 Loss or Damage From Failure to Supply: The Company is not liable for any loss, cost, damage or expense to any Customer occasioned by any failure to supply gas according to the terms of the contract or by any interruption of the supply of gas, if such failure or interruption is due to storm, lightning, fire, flood, drought, strike, or any cause beyond the control of the Company, or any cause except willful default or neglect on its part.

702-5 Dual Services
BGE provides more than one supply point where, in BGE’s judgment and under conditions specified by BGE, more than one service is required. During new construction or renovation, BGE will not provide dual services. Upon installation of the new service, the original service must be disconnected. For large industrial and commercial installations, the BGE Meter Inspector may waive this policy and provide up to 10 days of dual services before the original service must be disconnected.
703 Ownership Responsibilities

703-1 Ownership Responsibilities

The Maryland Public Service Commission provides the regulations which govern the conditions of service supplied by Gas Companies. (Ref. COMAR Title 20 - Subtitle 55)

These regulations are intended to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to outline the responsibility of the public in requesting and receiving service from the utilities.

The BGE Gas Service Tariff is supplementary to the “Regulations Governing Service Supplied by Gas Companies” of the Public Service Commission of Maryland, and comprises the rules and rates under which gas service is supplied to its customers by Baltimore Gas and Electric Company (Hereafter Referred to as “The Company”).

The following requirements cover the ownership of gas service equipment and responsibilities of each party.

703-2 Company’s Installation

For a list of BGE’s installation responsibilities, the following excerpt is from the BGE Gas Service Tariff; Part 2, Section 5. In addition to the requirements below in the BGE Gas Service Tariff, BGE also has a Point Of Service (P.O.S.) Policy that must be followed. BGE installs a valve at its expense at the outlet (or "back") of the meter. This valve is called the Customer’s Main Gas Valve, or P.O.S. valve. After BGE installs and checks for leaks and proper operation, the valve becomes the property of the customer.

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**BGE Gas Service Tariff; Section 5 5. Company's Installation**

5.1 **Service Equipment Furnished by the Company:** For the purpose of determining the amount of gas used, a meter is installed by the Company upon the Customer’s premises.

The Company also furnishes, installs and maintains:

A. the line from the end of the “service” to the meter including a valve or cock at the inlet (or “front”) connection of each meter, and where more than one meter is installed, the inlet manifold.

B. the outlet (or “back”) connection from each meter [Point of Service], and where two or more meters are used as a metering unit, the outlet manifold including a valve or cock on each “back”[Point of Service] connection.

C. the pipe from the connection between the end of the service and the meter, described in (a) above, to the opposite side of the foundation wall between basements of adjoining buildings where one service is branched [inside a building] to supply two [attached] buildings [houses].

D. one or more pressure regulators where they are deemed by the Company to be necessary.

E. any necessary valves, cocks and piping associated with the Company’s installation.

Where a meter with a capacity of 450 cubic feet per hour or less is located indoors and the electric meter is also read outdoors, where requested by the Customer, the Company will install a remote index reading device at the Customer's expense. The charge for such device is $75.
5.2 Ownership: All meters and other equipment furnished by the Company, except the customer’s main gas valve, remain its property.

5.3 Responsibility for Damage or Loss: The Customer is responsible for all damages to, or loss of, the Company’s property located upon his premises unless occasioned by fire or the Company’s negligence, or any cause beyond the control of the Customer.

5.4 Access to Company’s Equipment: Permission is given the Company to enter the Customer’s premises at all reasonable times, for the purpose of reading its meters, and operating, inspecting, modifying and keeping in repair or removing any or all of its apparatus used in connection with the supply of gas, and for said purposes the Customer authorizes and requests his landlord, if any, to permit the Company to enter said premises.

5.5 Tampering Charge: In the event of unauthorized service use resulting from unauthorized adjustment to, reconnection of, or tampering with Company equipment, the Customer receiving the unauthorized service shall pay a charge to cover the Company costs of tampering investigations, inspections, billing, and corrective action on unsafe equipment. The Tampering Charge is $90 for confirmed tampering by a residential Customer and $45 per hour of investigation for confirmed tampering by a non-residential Customer.

703-3 Customer’s Installation

For lists of the Customer’s Installations responsibilities, the following excerpt is from the BGE Gas Service Tariff; Part 2, Section 4.

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**BGE Gas Service Tariff; Section 4**

**4. Customer’s Installation**

4.1 Service Equipment Furnished by the Customer: The Customer provides within his premises, without charge, suitable space for the Company’s metering and service equipment. All service equipment other than that specifically stated in Section 5.1 below [Company’s Installation] is furnished by the Company, is furnished, installed and maintained by the Customer (or owner, if more than one Customer in the building), subject to the approval of the Company. This includes the pipe to the appliance (the fuel line) from the outlet connection referred to in Sec.5.1 [Point of Service]. Where the meter has been installed, the fuel line is brought to the meter location, or to the point of connection of the Company’s installation downstream from the meter outlet [and connected by the customer at the Point of Service]. Where the meter is not installed, the fuel line is brought to within 2 feet of the designated meter outlet location, and within the meter room where provided. It also includes any meter enclosure required by the Customer, and acceptable to the Company, where the meter is installed outdoors. The service equipment furnished, installed and maintained by the Customer also includes a dedicated telephone line where an Automated Meter Reading device is installed by the Company for Delivery Service purposes.

4.11 Customer’s Responsibility to Maintain Service Equipment: The Customer is responsible for maintaining all service equipment provided by them in proper working order. In the event that a malfunction with the Customer’s dedicated telephone line results in the need for the Company to visit the Customer’s premises to manually download data from an Automated Meter Reading device to prevent loss of the data, the Customer shall pay the cost of the site visit, unless the Customer has taken timely action to resolve the telephone line problem through its telephone service provider.

4.2 Point of Connection to Company’s Service: The piping upon the Customer’s premises is brought by the Customer to any point of service connection specified by the Company and if it becomes
necessary to change such point of [service] connection, the Customer brings such piping to the new point of [service] connection.

Where the meter is installed with a meter outlet valve, the fuel line is brought to the meter location and connected by the Customer. All other connections to or work of any kind on the Company’s system, which is defined in Section 5.1 [which terminates at the Point of Service], is done by the Company.

4.3 Rules Governing Customer’s Installation: All piping and gas appliances upon the Customer’s premises shall be installed and maintained in accordance with applicable laws and the rules of the governmental authority having jurisdiction, the National Fire Prevention Association, the applicable standards of the American National Standards Institute, and the Company. The rules of the Company are in addition to and in no way a waiver of the rules of the inspection authority having jurisdiction.

4.4 Certificates of Approval Required: The Customer obtains such certificates of approval of piping and gas appliances upon his premises as may be legally prescribed, and before service is supplied, the Company shall be so notified in writing by the inspection authority. In the absence of a certificate of approval being required by the governmental authority having jurisdiction, such piping and gas appliances shall be acceptable to the Company.

4.5 Access to Customer’s Equipment: Permission is given the Company to enter the Customer’s premises at all reasonable times, for the purpose of service test, and for such purpose the Customer authorizes and requests his landlord, if any, to permit the Company to enter said premises.

4.6 Wastage of Gas and Adjustment of Appliances: Upon notice by the Customer, the Company investigates suspected gas leakage or improper adjustment of gas appliances.

Leakage inspections are made without charge, and where such leakage in a residential Customer’s piping or appliances is found to have caused gas wastage, allowance for a share of such gas wastage is made by the Company where the occurrences is without the knowledge of the Customer. Adjustments of appliance burners and pilots are made by the Company without charge where the adjustment can be made within a reasonable time.

A. Customer Owned Gas Booster/Compressor (In reference to section 4.1 above):

Gas Booster/Compressors shall be allowed for Low Pressure (LP) and Line Pressure Delivery (Unregulated) customers only. A LP cut-off device which is acceptable to BGE shall be installed with each customer owned gas booster/compressor installation (NFPA 54-Z223.1 Para 5.11). The LP cut-off device should be connected as close as is practical to the customer side of the point of service valve. A back pressure protection device shall be required where the design of the gas booster/compressor could potentially force pressure back into BGE’s distribution system (NFPA 54-Z223.1 Para 5.10).

The minimum set points for LP cut-off devices listed below are typical but not limited to these settings. Contact the Gas Distribution Planning Unit to determine the appropriate setting.

- Low Pressure System (LP) – 3.0” w.c.
- Medium Pressure System (MP) – 40.4” w.c. (1.46 psig)
- High Pressure System (HP) – 20 psig
- OHP System (OHP) – 120 psig
703-4 Company Responsibilities
The Company maintains and monitors all gas piping and equipment up to the Point of Service (POS), or customer’s main gas valve. These facilities are monitored for leaks and corrosion on a prescribed basis.

Based upon Public Service Commission guidelines, BGE performs an In-Service Performance Test Program for gas meters. This program involves the replacement of selected Group I, II, and III meters on a scheduled basis for performance testing. It is the responsibility of BGE to coordinate any customer service issues to ensure safety and minimize impact to customers. (Reference: COMAR 20.55.07.07).

The Public Service Commission requires a gas leakage test to be conducted whenever work is performed on the service or meter installation. (Reference: COMAR 20.55.09.05)

703-5 Customer Responsibilities
Based upon U.S. Department of Transportation Regulations, all natural gas utilities must provide notification to their customers of the customer’s responsibility in monitoring and maintaining their piping and facilities. BGE has provided this notification through inclusion in our system-wide mailing of the “Scratch-and-Sniff” insert in all bills as required by the Maryland Public Service Commission.

The following is the notification wording as printed on the “Scratch-and-Sniff” billing insert:

**Do You Know What Natural Gas Smells Like?**

**Warning – Possible Flexible Connector**
- Gas connectors are corrugated metal tubes used to connect gas appliances to gas supply lines and are the responsibility of the customer. Some flexible connectors can separate from the tubing and cause a serious gas leak. To our knowledge, these dangerous, uncoated flexible connectors have not been made for more than 20 years, but some of them may still be in use, particularly in homes with older appliances. Moving the appliance, even slightly, whether to clean behind it or inspect its gas connector can cause the connector to break or leak.
- Do not attempt to move the appliance yourself to check the connector. BGE recommends customers with older appliances contact a licensed plumber or qualified professional appliance repair service to inspect your appliance connections.

Report gas leaks immediately. Gas can enter your building through walls even if you are not supplied with gas. Natural gas is colorless, tasteless, and odorless. We add an unpleasant odor to the gas so you will know if natural gas is escaping.

- If you smell a gas leak:
  - ❌ extinguish all open flames. Do not use matches or lighters, and do not attempt to light your appliance.
  - ❌ do not touch electrical switches, thermostats, or appliance controls. If the odor is strong, do NOT use any phone. All of these devices can cause sparks.
  - ❌ leave the premises and go to a safe place where you can call BGE at 1-800-685-0125 or 1-800-485-0123 from outside the Baltimore Metropolitan area. TTY/TDD users call 1-800-735-2348 (Maryland Relay Services). Remain at the safe location and wait for BGE to arrive.

Our Customer Care Center will have a gas mechanic respond promptly to survey the area, perform safety measures, and repair BGE’s equipment. There is no charge to stop a gas leak.

Please remember when planning any digging projects, call Miss Utility at 1-800-257-7777 at least 48 hours before you start. A utility representative will mark underground facilities at your site. All digging around gas lines should be done by hand.

*Excluding underground wiring

Each gas customer is responsible for the maintenance and monitoring of all aboveground and buried pipe after the meter. If such piping is not maintained, it may corrode and leak. You should periodically inspect buried gas piping located after the meter for leaks and corrosion, and repair it if any unsafe condition is discovered.

To find contractors who can perform maintenance and repair of gas feed piping in your home, after the meter, please look up “Plumbing Contractors” in the yellow pages of the telephone directory—or look for plumbers who are state certified to work on gas piping.

A U.S. Department of Transportation regulation requires all natural gas utilities to notify gas customers of this gas line maintenance responsibility. BGE owns and maintains all natural gas piping up to and including the gas meter. BGE reserves to provide all of our customers safe, reliable service while ensuring that gas piping owned by the company is properly maintained to avoid the potentially damaging effects of leaks and corrosion.

**BGE**

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Gas & Electric Metering Manual
Baltimore Gas and Electric Company

August 2018
703-6 Qualified Agency
Installation and replacement of customer gas piping, gas utilization equipment, or accessories, and repair and servicing of equipment, shall only be performed by a qualified agency. The term “qualified agency” means any individual, firm, corporation, or company that either in person or through a representative is engaged in and is responsible for (1) the installation, testing, or replacement of gas piping or (2) the connection, installation, testing, repair, or servicing of equipment, that is experienced in such work, familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction.
(Reference: National Fuel Gas Code - 2015 Edition; Section 3.3.8)

703-7 Interruptions of Service beyond the Meter
Notification of Interrupted Service: When the gas supply is to be turned off, it shall be the duty of the qualified agency to notify all affected users. Where two or more users are served from the same supply system, precautions shall be exercised to ensure that only service to the proper user is turned off.
Exception: In cases of emergency, affected users shall be notified as soon as possible of the actions taken by the qualified agency.
(Reference: National Fuel Gas Code - 2015 Edition; Section 4.2.1)

Before Turning Gas Off: Before turning off the gas to the premises, or section of piping to be serviced, for the purpose of installation, repair, replacement, or maintenance of gas piping or gas utilization equipment, all equipment shutoff valves shall be turned off.


703-8 Inspection and Testing
It is the customer’s responsibility to provide evidence that prior to acceptance and initial operation, all piping installations have been inspected and tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of the local jurisdiction having authority.
(Reference: COMAR 20.55.09.03 Customer Piping)

Code of Maryland Regulations
20.55.09.03
Customer Piping:

A. Before permitting the use of gas at any location, the piping shall be tested for tightness and leaks in accordance with Part 4 of the American National Standard “National Fuel Gas Code”, ANSI Z223.1 (1998) [latest version is dated 2009], which is incorporated by reference under COMAR 20.50.02.02.

B. Pressure Test. Before any system of gas piping is finally put in service, it shall be tested for tightness and certified by the proper inspection authority that the test has been made.

C. Leakage Test. Before turning gas into any piping, it shall be tested for leaks.

The test procedure used shall be capable of disclosing all leaks in the section being tested and shall be selected after giving due consideration to the volumetric content of the section and to its location.

In accordance with the local jurisdictional requirements, the customer piping test should incorporate the following practices: (Reference: National Fuel Gas Code - 2015 Edition, Section 8)
A. The [customer] piping system shall withstand the test pressure specified without showing any evidence of leakage or other defects. Any reduction of test pressures as indicated by pressure gages shall be deemed to indicate the presence of a leak unless such reduction can be readily attributed to some other cause.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.1.5.1)

B. The leakage shall be located by means of an approved gas detector, a non-corrosive leak detection fluid (soap and water), or other approved leak detection methods. **Matches, candles, open flames, or other methods that could provide a source of ignition shall not be used.**  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.1.5.2)

Where leakage or other defects are located, the affected portion of the piping system shall be repaired or replaced and re-tested.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.1.5.3)

C. All testing of piping systems shall be done with due regard for the safety of employees and the public during the test.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.1.3.6)

**703-9 Turning Gas On**

During the process of turning gas on into a system of new gas piping, the entire system shall be inspected to determine that there are no open fittings or ends and that all valves at unused outlets are closed and plugged or capped.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.2.2)

**703-10 Test for Leakage**

Immediately after the gas is turned on [by the qualified agency] into a new system [or into a system that has been initially restored after an interruption of service,] the piping system should be checked for leakage. Where leakage is indicated, the gas supply shall be shut-off until the necessary repairs have been made.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.2.3)

**703-11 Placing Equipment in Operation**

Gas utilization equipment shall not be placed in operation [by the qualified agency] until after the piping system has been checked for leakage in accordance with 8.2.3, the piping system purged in accordance with 8.3, and connections to the appliances checked for leakage.  
(Reference: National Fuel Gas Code - 2015 Edition; Section 8.2.4, 8.2.3, 8.3)

**703-12 Premises Test for Gas Leakage**

Prior to any connection of customer piping to BGE facilities, which could facilitate the introduction of natural gas into a customer’s premises, a premises test for gas leakage must be performed. The leakage test must be performed by a licensed plumber or qualified agency.  

A. The Public Service Commission requires a gas leakage test to be conducted whenever work is performed on the service or gas metering assembly. The appropriate excerpts from these regulations are as follows:
Customer’s Premises:

When a utility service person enters a customer’s premise for the purpose of inspecting or serving any gas equipment (excluding meter reading) a leakage survey shall be conducted at appropriate locations, including atmosphere samples and at all utility service entrances. In multiple-occupancy buildings, an individual apartment or dwelling unit shall constitute the customer’s premises specified above. The customer shall cooperate with the Company in the conduct of such tests as regards to accessibility to meters and service lines.

B. The leakage test will be conducted using a combustible gas indicator. A smell and soap test, although used as supplementary means to pinpoint leaks, will not be considered adequate to conduct the actual test. Take readings across the wall through which the service enters at all utility entrances, i.e. water, sewer, electric, etc. and at any cracks or openings in the walls.
704 Construction

704-1 Building Requirements

The Company's policy is to locate distribution facilities in the front of buildings. Rear distribution is permitted only in shopping centers or apartment/condominium (multiple occupancy buildings) complexes where our facilities are made readily accessible to vehicles and construction equipment for operating or maintenance purposes. Rear distribution is not normally permitted for individual or multiple-attached dwellings where the property is individually owned or has potential for occupant improvement/impact over our facilities.

All new gas services shall terminate at an outside location. If extenuating circumstances exist (i.e. historical district, jurisdictional limitations) and an outside termination is not feasible, an inside location and the design must be approved by the BGE. Please consult with your BGE representative before any construction.

A. One service will be installed for all the requirements of the customer on a single property. Where supply is for his use in a group of buildings the supply point is located wherever practical at a location central to the group, or

B. One service will be installed for each building on Customer's property, or

1. One service will be installed for any building occupied by two or more customers. (Reference: BGE Gas Service Tariff, Conditions of Supply, Section 2.2).

D. A central meter location for all leased areas within a horizontally constructed nonresidential multiple occupancy building is preferred. If this is impractical, two or more centralized meter locations are acceptable. The least preferred method to supply service is via services to individual areas. However, service may be provided to any leased area of the building that:

1. Has one or more exterior wall(s) at least 25 feet in length, or 8 inch masonry fire walls (the 25 feet requirement may be satisfied by taking the average exterior width of all rental areas which meet the condition in 2. and 3. below); and

2. Satisfies all applicable code(s) requirements for classification as a separate building; and

3. Has an automatic alarm and recloser on all fire doors which activates when the door is opened; and

4. The occupancy and gas usage is established for the leased area to be supplied and a gas certificate is pending.

In areas to be paved, gas services (or mains) may be installed to prospective lease areas at the Owner's request (subject to tariff charges) even if occupancy and gas usage are not known. However, such services (or mains) shall not be connected to the source of gas until occupancy and gas usage is determined and a gas certificate is received. Facilities will be sized based on the best available information. Service risers, when appropriate, will be installed as part of the initial installation. Gas service piping will not be installed until a permanent building wall is constructed at the Point Of Service.
E. Although not stated in the Gas Service Tariff, the Company definition of a building is a “permanent structure that is enclosed within exterior walls or fire walls” as described in an architectural drawing based on the latest International Building Code and Local Code and stamped by the architect on record with the State of Maryland.

F. Location of Service Equipment - Multiple Occupancy Buildings

1. Under normal conditions, a separate meter is required for each customer served within a building. A single service and central meter location is preferred to service a structure enclosing one or more buildings unless each wall separating adjoining buildings is based on the latest International Building Code and Local Code. In that event, services to each building may be provided.

   a. A commercial or I&C building within a structure enclosing one or more buildings, as defined by the latest International Building Code and Local Code, may be served by a separate service provided the service is constructed with an exposed outside riser terminating in a valve. Note: This is not applicable to residential or public occupancy buildings.

   b. A structure, regardless of whether standing alone or separated into areas classified as buildings may be supplied by one service to a central meter location or one service for each building.

   c. Meter locations on multiple occupancy residential buildings, may be at one central location supplied by one service or may be in small groups located around the building with each location supplied by a service. Design of the service location and route should be the most economical while allowing access for surveys and maintenance. Construction of services beyond the building wall nearest the main shall be as described in section 704-2,A.

Note: For a flex warehouse building gas service is provided by a single service to a central meter location.

704-2 Gas Service Piping Location Requirements

A. Gas Service Piping Location

Gas services will generally be installed perpendicular from the gas main being tapped directly to the service entrance of the building being served. An offset, if required, will be made at and parallel to the front property line. From there the service will run perpendicular from the property line to the building. See Figure 704-2A.

1. Preferably services should not extend more than 5 feet beyond the building wall nearest the gas main. Where it is necessary to extend the service more than five feet beyond the wall, the service will be installed parallel to the building and no closer than 5 feet to it. Cover of at least 24 inches must be maintained.

   a. If the service is steel, all joints on this portion of the service must be welded. All joints on a plastic service must be fused (if IPS size); and if the service is plastic tubing, the couplings should be kept to a minimum. Extension of the service around a building to a rear meter location is prohibited, except for multiple occupancy residential buildings.
B. Conduit Requirements and Encasement

Gas services shall not be installed directly under a building or roofed passageway or an enclosed or limiting structure, such as storage tanks or pools.

1. Gas services shall not be installed under enclosed auxiliary structures attached to a building (i.e., porches) that have less than 36 inches of clearance above ground, unless installed in a steel casing pipe, for inside meter installations, that is vented outside and sealed inside the building or structure to prevent escaping gas inside the casing from entering the building. (Ref: D.O.T., Office of Pipeline Safety, CFR 49 Regulation 192.361). See Figure 704-2B.

   a. Gas services requiring regulator vents (MP & HP) must have a 2-1/2 inch Schedule 40 PVC or steel casing pipe installed under the enclosed structure. The sleeve will facilitate installation of the regulator vent piping so that escaping gas will vent away from the building. For pipe and casing sizes contact your BGE Representative. (Ref: D.O.T., Office of Pipeline Safety, CFR 49 Regulation 192.355)
2. Gas services shall not be installed under or near steps, retainer walls, footers or certain equipment that are within an area defined by a 45 degree slope from the bottom corner of the gas main trench to the base of these structures, unless installed in an encasement pipe. See Figure 704-2B2.

![Figure 704-2B2](image)

3. Encasement of existing services is not required when the following are constructed over the service (minimum cover requirements apply):

   a. Driveways, sidewalks, patios, and concrete slabs at ground level that are not enclosed by walls, and/or roof as long as separated from the building wall by at least an expansion joint.

   b. Decks at ground level that are not enclosed by walls and/or roof.

   c. Residential HVAC units that can be moved and having a minimum clearance of 36” from the face of gas and electric metering installations.

4. Encasement required for new services/new business:

   a. In order to facilitate service installation, encasement is required, of the homebuilder, for new services, which encounter the above situations.

C. Service Piping Installation - Site Requirements

Services will be installed where they are accessible for maintenance purposes (repairs, leak surveys, etc.) and not subject to undue stresses or hazardous conditions. Where an obstruction hinders the company’s ability to conduct surveys or effect repairs, the obstruction may require removal.

1. The planting of shrubs, hedges or flowers over the service shall be avoided. The planting of trees over the service pipe is prohibited. Installation of storage tanks such as propane or oil tanks, or swimming pools, or other fixed equipment or structures is also strictly prohibited.
2. Services will not be encased in concrete, brick or timber foundations for steps, retaining walls or similar structures.

   Note: This includes the building's footer, and the builder shall provide a clear area for the service piping. This clear space may either be cast when the footer is poured or cut away before the gas service is installed.

3. Services will be installed in locations free of erosion of the ground surface or the ponding of water. Areas subject to blasting operations or anticipated settlement from dewatering or tunneling operations are also to be avoided.

4. Common trench occupancy of gas services is a preferred practice whenever feasible. For examples of common trenching, see Figures 704-2C4A and 704-2C4B. The installation of gas services in a common trench is prohibited where:

   a. The operating voltages of electric cables are in excess of 15 kV.

   b. The gas service is larger than 6" in diameter.

   c. Vertical separation of at least 12” between gas and electric, streetlight, or communication lines cannot be maintained.

      (Reference: National Electric Safety Code - 2017 Edition, Section 354.A.2 - Radial separation of supply and communication cables or conductors from steam lines, gas, and other lines that transport flammable materials shall be not less than 300mm (12in) and shall meet Rule 353)

   d. The gas service is O.H.P. (in excess of 99 psig) and 18” of vertical clearance cannot be maintained from electric primary or secondary cable.
Common Trench Configuration for Services –
Low Pressure, Medium Pressure, High Pressure
(common trench is not permitted with gas lines larger than 6” in diameter)

Trench Cross Section Sketch

Figure 704-2C4A

Common Trench Configuration for Services - LP, MP, HP. See the below requirements.

a. Depth of trench shall provide a minimum of 24” of cover for gas pipe.

b. The service trench depth must be 38 inches plus the pipe diameter.

c. Plastic services require #8 wire - tracer (BGE material #40-B08) and warning tape (BGE material #66-579). Steel services require warning tape only.
Common Trench Configuration for Services – Over-High Pressure
(common trench is not permitted with gas lines larger than 6” in diameter)

Trench Cross Section Sketch

- Depth of trench shall provide a minimum of 24” of cover for gas pipe.
- The service trench depth must be 44 inches plus the pipe diameter.
- Steel services require warning tape (BGE material #66-579).

Figure 704-2C4B
5. Gas services will not be installed in a common trench above or below other utilities, i.e., water, sewer or storm drain. When gas services are to be installed parallel to other utilities, horizontal clearance must be maintained to provide space for the maintenance of the gas service as well as the other utilities. As a rule of thumb, the separation should equal at least the depth, "d", of the other utility as indicated in the following Figure 704-2C5.

![Figure 704-2C5](image)

6. When crossing other underground structures (non-current carrying) not used in conjunction with the installation, gas mains and services will have the following vertical clearances:

   a. Steel mains and services sized 6 inches and smaller: 3" clearance. If the required 3" clearance cannot be maintained, the steel gas pipe will be insulated from other structures by inserting an approved non-conductive material between the two.

   b. Steel mains and services sized 8 inches and larger: 12" clearance.

   c. Plastic mains and services all sizes: 12" clearance.

   d. When crossing stream mains or services only steel piping is permitted with minimum clearance of 12” measured from piping O.D.’s

7. Above ground service piping outside buildings will be protected from damage by external forces and atmospheric corrosion.

8. Where practical, the gas service should be designed to enter buildings above ground, in a ventilated for a location and away from windows or other wall openings.

Note: Meters and/or regulators shall not be installed near building openings used as outside air intakes where a gas leak or venting gas could allow the gas to be drawn into the building.

9. The gas service piping, when entering buildings, shall terminate immediately inside the customer meter/regulator set assembly nor shall it be concealed as in a chase, by wall paneling or ceiling tile. (Note: Extensions of the service line greater than 5-feet within buildings must be approved by the Gas Standards and Engineering Unit, Gas Planning and Engineering Department.).

   a. The installation of a branch service from one gas service through a common wall to supply an adjacent customer is prohibited. However, if an inside branch service exists it may be renewed, if necessary provided there is no customer objection.
b. Outside branching of a gas service may be used with discretion for economic reasons, e.g., avoid extensive paving cuts or extraordinary service construction, provided no more than two customers are supplied by the gas service, all other requirements of these standards are met, and only with the direct approval of Gas Engineering & Standards. Outside valves must be installed on each branch to control the flow of gas independently to each building. Outside branches should normally be made only from a gas service located on the dividing property line between two abutting customers at or adjacent the front property line. An effort should be made to utilize main piping (or re-classify existing service pipe) for this type of installation. An outside-branched service may also be utilized to supply no more than two buildings of a customer on his premises.

10. In order to allow for future main extensions gas services shall not be connected within 10 feet of the end of the main.

11. PVC conduit (solid wall, not split) may be used as a sleeve installed in advance of paving to facilitate future installation of small size (2” and smaller) gas services where a casing is not required, provided it is more economical than alternatives. The PVC conduit should be at least two sizes larger than the outside diameter of the service pipe. The ends of the sleeve should not be sealed after insertion of the carrier pipe to avoid containment of gas in case of a gas leak. However, the end of a sleeve on a service line nearest the building should be sealed after installation of the carrier pipe and the opposite end of the sleeve left open.

The following is a list of solid wall PVC casing that may be used for gas services.

<table>
<thead>
<tr>
<th>Service Size</th>
<th>Duct Size</th>
<th>BGE Material No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;, 1&quot;, 1-1/4&quot;, or 2&quot;</td>
<td>4&quot;</td>
<td>12-746</td>
</tr>
<tr>
<td>4&quot;</td>
<td>6&quot;</td>
<td>12-640</td>
</tr>
</tbody>
</table>

12. The use of plastic pipe and tubing within the City of Baltimore is restricted as detailed herein:

a. In the downtown area the use of plastic pipe or tubing is prohibited within 8’ of any steam distribution piping (mains or services). This clearance must be maintained even if the plastic main or service is inserted in casing or duct. All installations closer than 8’ must be made using steel pipe with minimum separations of 1’ vertically (from outside of piping to outside of steam main/service pipe) and 2’ horizontally.

b. Within public rights-of-way in the City of Baltimore, plastic pipe and tubing must be backfilled with sand 6 inches above the top of the plastic pipe or tubing.

13. The gas service and associated metering equipment shall not be located where it may cause an obstruction to a Siamese fire connection. An area with a 36” radius measured from the center of the connection and extending downward to grade, shall be kept clear of all associated piping and equipment.
704-3 Gas Metering Assembly Supports

BGE gas metering assemblies are installed with enough flexibility to prevent thermal expansion or contraction from causing excessive stresses in the pipe or components. The gas metering assembly will be supported or anchored to protect pipe joints from the maximum end force caused by internal pressure and any external forces caused by persons using exposed piping as a step stool, etc. See Figures 704-3A and 704-3B on the following pages. (Reference: National Fuel Gas Code – 2012 Edition - Section 5.7.3)

Note: The customer is responsible for all damages to company property as stated in Ownership/Responsibilities Section of the manual.

It is the customer’s responsibility to provide adequate, safe and accessible space for the BGE gas metering assembly. Please consult with your BGE representative prior to designing the meter location in any building construction plans.
Required Space and Location for Service and Meter Brackets - Left Building Corner

![Diagram of meter installation requirements]

Figure 704-3A

If the meter is located at the front of the building starting from the Left Building Corner
Then the distance needs to be no less than Dimension "A" = 12" minimum.
If the meter is located at the Right Side Wall from the Front Building Corner
Then the distance shall be Dimension "A" = 12" minimum to 60" maximum.

The indicated hatched area shown on the foundation wall is clear space to be provided by the builder. This space shall be located below final grade with the dimensions of 24" wide by 24" deep and it shall be relatively flat and smooth so as to facilitate the installations of the support brackets.
Required Space and Location for Service and Meter Brackets - Right Building Corner

Figure 704-3B
If the meter is located at the front of the building starting from the Right Building Corner
Then the distance needs to be no less than Dimension "A" = 30” minimum.
If the meter is located at the Right Side Wall from the Front Building Corner
Then the distance shall be Dimension "A" = 30” minimum to 60” maximum.

The indicated hatched area shown on the foundation wall is clear space to be provided by the builder. This space shall be located below final grade with the dimensions of 24” wide by 24” deep and it shall be relatively flat and smooth so as to facilitate the installations of the support brackets.
705 Metering Locations

705-1 BGE Outdoor Metering Location Standard

In conjunction with the BGE Gas Service Tariff, BGE has developed a "BGE Outdoor Metering Location Standard". All meters are to be installed on the outside of buildings, except as provided for in the Exceptions to the BGE Outdoor Metering Location Standard section below. All meter locations are agreed upon by the Customer and the Company in advance of construction and are subject to final approval by the Company. Contact your BGE representative before any construction begins.

Failure to comply with the BGE Outdoor Metering Location Standard will prevent BGE from providing natural gas to the requested service location.

Note: An acceptable meter location shall be free of any conditions detrimental to the metering equipment, and such location shall not create a hazard or inconvenience. The customer shall maintain at least three (3) feet of unobstructed space in front of the meter, and such space shall be free of any source of ignition or heat which may damage the meter or related equipment. The sole exception to the three (3) feet of unobstructed space in front of the meter is the use of bollards for protection from vehicular traffic where required; see Meter Protection Section of this manual.

The space provided for meters, regulators and service risers shall be clear of all obstructions, such as shutters, doors, and rainspouts, and the placement of obstructions such as concrete equipment pads, shrubbery, porches, patios, decks and gardens shall not interfere with the installation and servicing of the metering equipment or reading of the meter. Meters shall not normally be located over porches or patios.
The following excerpt is the “Location of Service Equipment” from the BGE Gas Service Tariff; Part 2, Section 6. This is provided for reference in outlining the BGE Metering Location Standard.

### BGE Gas Service Tariff; Section 6

#### 6. Location of Service Equipment

**6.1 General:** Under normal conditions an outdoor location is required. Meter locations are agreed upon by the Customer and the Company, subject to final approval by the Company.

An acceptable meter location shall be free of any conditions detrimental to the metering equipment, and such location shall not create a hazard or inconvenience. The Customer shall maintain at least three (3) feet of unobstructed space in front of the meter, and such space shall be free of any source of ignition or heat which may damage the meter or related equipment. The Company may require the Customer to provide, at the Customer's expense, suitable protective equipment for the meter or exposed service riser.

Where more than one Customer is to be supplied, each meter shall be readily accessible to the Customer served by it and to the Company. The fuel lines shall be so installed that the meters may be grouped at one location.

*In the event it becomes necessary to change an existing service entrance or meter installation the location shall conform to these rules except that existing indoor meters may remain indoors.*

**6.11 Outdoor Location:** An outdoor location is generally required for meter installations not exceeding six (6) meters.

Space shall be provided for meters, regulators and service risers clear of all obstructions such as shutters, doors and rainspouts, and so that the placement of shrubbery, flower beds and gardens will not interfere with meter installation, servicing, or reading. *In no event shall meter equipment extend beyond the Customer's property line.*

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### Exceptions to the BGE Outdoor Metering Location Standard

The BGE Gas Service Tariff allows for certain indoor locations:

Meter rooms greater than 6 meters from a single service point are allowed.

### Exception Approval Requirements

Any other request for indoor locations requires the BGE representative to obtain formal written approval from the COO, VP of Gas Operations and the VP of Electric Operations prior to construction.
705-2 Outside Meter Locations Requirements

All efforts should be made to utilize outside locations. When locating gas and electric meters outside, there are specific requirements that should be followed. Typically the meters are set at the location where the service terminates at the building being served.

Outside metering location must be used if one of the following conditions exists:

- Clear wall space is available: 24” W x 57” H (stacked meter configuration – wall mount electric meter socket). See Section 602-1.
  OR
- Clear wall space is available: 36” W x 47” H (side by side meter configuration – pedestal electric meter socket). See Section 601-2.
  OR
- There is adequate clear wall space to split the meters and install them separate from each other. The gas meter requires 15” W x 36” H and the electric meter requires 17” W x 57” H (200 Amp wall mount box) or 16” W x 47” H (200 Amp pedestal box) of clear wall space. See Section 601-3.

Standard service line extension to a residence shall extend not more than 75 feet for a single family home and 30 feet for a town house from the property line where the service enters the property to be served to the nearest corner of the building. Distances greater than these are non-standard and all additional costs will be borne by the customer/builder. For additional information, please consult with your BGE Representative. (Reference: BGE Electric Service Tariff, Section 8.23)

The assembly will be installed at the location indicated on the customer service agreement or the gas service drawing in accordance with Section 704-2.A.1 (Gas Service Piping Location) and Section 705-8 (Meters - General Rules) of this manual below:

A. The outdoor residential customer meter shall be placed as close to the exterior building wall as possible for both new service lines and service lines that are replaced. (Reference: COMAR 20.55.09.07.D.)

B. The residential gas metering assembly installed outside shall be located on a building either one (1) foot inward from the building edge along the "front", or no more than five (5) feet deep on the building side(s). See Figure 705-2B.
Note: The "front of the building" is defined by the portion of the building facing the utilities, which typically run along the street.

C. Commercial and Industrial gas meter assemblies may be located in places other than the "front of the building", provided that BGE can readily access the assembly. A general rule of thumb is if a commercial service vehicle (BGE truck, fire engines, etc.) can access the proposed location, the location is accessible. Please contact a BGE representative in advance of the building's construction to confirm if the proposed location is "readily accessible".

D. On Over High-Pressure assemblies, two service regulators will be installed as part of gas metering assembly.
705-3 Remote Reading Devices

A. Policy
BGE’s current policy is to use Automated Meter Reading (AMR) technology for all gas meters in the 212XX zip codes and the Mt. Airy, Maryland area. The meters considered in the Mt. Airy area are those in the gas franchise portion in the BGE gas service territory. Effective April 1, 2004, all gas meter sets on new construction will utilize AMR or AMI (smart meter) technology.

B. Other considerations relating to remote reading devices:

1. The inside meter must be accessible to be read once every twelve months to verify gas usage.

2. The Company at its expense will perform maintenance of the remote device unless willfully damaged or tampered with.

705-4 Corrosion Protection

A. External Corrosion
All BGE gas measurement facilities are protected against external corrosion. Painting maintenance may be required during periodical inspections.

Note: Gas metering assemblies known to be subject to extreme atmospheric corrosion environments, such as fertilizer plants, may need to have additional coating applied either upon installation or as a remedial measure. BGE coatings will only be applied to piping up to the Customer’s main gas valve.

B. Bonding
In order to electrically separate BGE gas system components and piping from the customer’s house piping, all new gas metering assemblies utilize insulated Service and Customer Main Gas Valves. Because of this, there is no electrical continuity from the house piping to the gas service riser through the meter assembly. This applies to both inside and outside meter locations.

When bonding CSST (customer piping), the bonding connection between the electrical service grounding electrode and the house piping should be made downstream of the Customer Main Gas Valve (or Point of Service). Customers are prohibited from making bonding connections to any part of the metering assembly. In addition, use of the electric meter assembly as a grounding electrode is not permitted by BGE.

Bonding of the fuel line is the responsibility of the customer and/or qualified electrician. To effectively bond the customer fuel line, the connection must be made downstream of the Customer Service Valve (or Point of Service)

705-5 Service Renewals & Relocations
If an existing residential gas metering assembly that is not equipped with a customer’s main gas valve is relocated, the new assembly will be installed with a customer’s main gas valve.

Whenever an inside gas meter assembly is renewed by BGE and the electric meter is located outside, the gas meter assembly should be relocated to the outside if possible.
705-6 Meters - General Rules

The following general rules govern the location of gas metering assembly. If the location for the gas metering assembly does not meet these specifications, consult your BGE representative.

A. Gas metering assemblies will not be installed in unventilated spaces. If an enclosed gas metering assembly is required, the enclosure is to be a tightly constructed compartment to prevent the uncontrolled migration of gas into building walls. Provision must be made for ventilation openings in the door of the enclosure that permits access to the assembly for maintenance. (Reference: National Fuel Gas Code - 2015 Edition - Section 5.7.2.1)

B. Gas metering assemblies will not be installed in places where it may be subjected to damage, such as driveways & sidewalks (without suitable protection), public passages, halls, coal bins, under porches, in crawl spaces, etc. or where it will be subjected to excessive corrosion, extreme temperature or sudden changes in temperatures. (Reference: National Fuel Gas Code - 2015 Edition - Section 5.7.2.2, 5.7.2.3, 5.8.3, 5.8.4)

C. Gas metering assemblies located indoors will not be installed within three (3) feet of any equipment with an open flame or subject to electric arcing; such as: circuit breaker panel boxes, water heaters, house heating, furnaces, boilers, A/C compressors, etc. It is recommended that gas meter assemblies located outdoors be at least three (3) feet from any equipment with an open flame or subject to electric arcing. (Reference: D.O.T., Office of Pipeline Safety, CFR 49 Regulation 192.353 (c)).

D. Gas metering assemblies will not be installed on walls or partitions subject to excessive vibration; nor any wall or partition which appears to have structural defects of any kind.

E. Gas metering assemblies will not be installed in areas where the clearance from the front of the meter to the opposite wall is less than three (3) feet; nor where it will be necessary to remove one meter to make possible the removal of another. Gas meters will be installed so that there is at least four (4) feet clearance from the front of the meter to the wall directly opposite where an electric meter is located.

F. Gas metering assemblies will not be installed under a non-insulated, combustible stairway or at the foot of a stairway where the distance between the bottom step and the meter will be less than four (4) feet measured horizontally.

G. Gas metering assemblies will not be installed in bath or toilet rooms (Existing installations found in bathrooms will not be relocated except at the customer's request, in which case the relocation will be made at our regular schedule of prices.) Toilet rooms where hazards exist are an exception.

H. Gas metering assemblies located indoors will not be installed in garages, unless approved as an exception to the BGE Outdoor Meter Location Standard per section 705-1 and with sufficient protection.

I. If the gas metering assembly is to supply more than one apartment in an existing dwelling, there must be a stop-cock or valve in each fuel line near the meter so that maintenance work on the fuel line may be done without interrupting the supply to any other line served by the meter.
J. Regulator/Relief valve vents

1. Must be vented to the outside and terminate at least 12” above grade.

2. Two or more regulator/relief vent lines may be manifolded to a single vent provided the manifold flow area equals or exceeds the combined flow area of the relief valve outlets. The minimum combined line size allowed is 1-1/2”.

3. All vent lines must be designed and installed to prevent the entry of water, insects, or other foreign material.

K. Gas metering assemblies will not be located where the clearance between the floor and any overhead structure is less than 6'-3” for Residential or eight (8) feet for Industrial & Commercial.

L. Outdoor gas metering assemblies or vent lines from inside regulators shall not be installed within three (3) feet of an opening (excluding windows) used as an outside air intake (forced or gravity) for ventilation, where venting gas could be drawn into a building or an enclosed space under an occupied portion of a building. Regulator/relief valve vents located within 10 feet (measured horizontally) of an air intake shall terminate at least three (3) feet above the highest point of the air intake, see Figure 705-8L. Dryer vents and windows are not considered air intakes, but a reasonable distance should be allowed between them and a gas metering assembly and/or regulator/relief vent. This rule does not apply to the combustion air intake of a direct vent appliance.

The preferred location of a gas meter is not under a window, but maybe allowed if all other possible locations are not available.
(Reference: D.O.T., Office of Pipeline Safety, CFR 49 Regulation 192.355 (b)).
(Examples: Louvers installed in a foundation intended to provide air circulation for a crawl space under an occupied portion of a home, such as a family room or a bedroom, would require the 10 foot clearance. The intake of a direct vent appliance does not require the 10 foot clearance.)

M. If a gas metering assembly is to be located in the proximity of a combustion air intake, the manufacturers installation instruction or the local authority having jurisdiction should be consulted for minimum clearance requirements. In the absence of specific requirements by the aforementioned, BGE recommends a horizontal clearance of four (4) feet. This recommendation will in no way supersede any requirements to be or currently established by the authorities having jurisdiction.
N. Where more than one customer is to be supplied, the gas metering assemblies will be grouped at one location and located so that each assembly is readily accessible to the customer served by it and the Company. Each assembly shall measure all the gas to be used in the individual occupancy unit. Central source heating, cooling and hot water systems or combinations thereof for the building are permitted.

O. On outside gas metering assemblies it is preferred for the assembly to be installed in the vicinity of the electric meter.

P. The gas service and the gas metering assembly will not be located where it may cause an obstruction to a Siamese fire connection. An area with a 36” radius measured from the center of the connection and extending downward to grade shall be kept clear of all associated piping and the gas metering assembly.

Q. In areas subject to flooding and possible tidal surges (Zone “A” or Zone “AE”, based on flood maps), the regulator vent(s) shall terminate at least one (1) foot above the 100-year base flood elevation. BGE will consider the Base Flood Elevation (BFE) in the design process, and is subject to enforcement by the authority having jurisdiction. If the height of the vent is greater than five (5) feet from grade, a plugged tee should be installed about one (1) foot above the regulator. Gas assemblies may be required to have additional protection from damage due to floating debris during a flood. BGE is responsible for determining if additional protection is needed; the customer is responsible for the associated costs for additional protection.

Note(s): (1) All vent lines must be designed and installed to prevent the entry of water, insects, or other foreign material. Pipe dope shall be utilized on all threaded pipe and joints will be wrench-tightened; (2) BFE is the computed elevation to which flood water is anticipated to rise and shown on the Flood Insurance Rate Maps (FIRMs) or on the flood profiles (Floodplain Management | FEMA.gov).

R. A minimum of 1” clearance must be maintained between all meters and any structural materials (i.e. building wall).
706 Gas Inspection, Testing, and Service Activation

706-1 Customer Piping Activation

The appropriate inspections and leakage tests are approved by the inspecting agency. The following items are presented as informational and best practices. **Introducing gas into the customer fuel line(s) is the responsibility of the licensed plumber/qualified agency.** BGE may re-introduce gas into the customer’s fuel line(s) under certain conditions, see Section 706-5.

Over the years the pressure test required for new piping systems, including additions to existing systems, has been confused with the test for leakage. As specified, the pressure test is required only for new piping systems or new additions, not including equipment shutoff valves, equipment connection, or equipment.

Before gas is introduced into a system of new gas piping by the qualified agency, or back into an existing system after being shut off, the entire system will be inspected to determine that there are no open fittings or ends and that all manual valves at outlets on equipment are closed and all unused valves at outlets are closed and plugged or capped.

The test for leakage is applicable whenever a gas piping system is placed in service either initially or after being shut off. The medium used for the test is the gas supplied at its supply pressure. The gas is applied to the piping, equipment, and equipment connections and valves.

Immediately after turning on the gas, the piping system will be leak tested to ascertain that no gas is escaping. If leakage is indicated, the gas supply will be shut off until the necessary repairs have been made.

706-2 Added or Converted Equipment

When additional or replacement equipment is installed, or an appliance is converted to gas from another fuel, the location in which the equipment is to be operated shall be checked to verify that it meets the requirements of the National Fuel Gas Code. BGE will not release set a meter until we receive a certification from the local jurisdiction that the equipment has met these requirements.
706-3 Underground Piping After the Meter – Residential

The Code of Maryland Regulations prevents gas utilities from providing gas service to residential customers with underground piping after the gas meter.

<table>
<thead>
<tr>
<th>Code of Maryland Regulations</th>
<th>20.55.09.07.D2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location of Residential Service Lines and Meters:</strong></td>
<td></td>
</tr>
<tr>
<td>Gas service may not be provided to new or renewed service lines if there is any underground pipeline after the meter, unless the pipeline carries gas only to gas utilization equipment located outdoors.</td>
<td></td>
</tr>
</tbody>
</table>

BGE will provide gas service to a meter if the underground piping is to supply gas utilization equipment such as pool heaters or gas grills. BGE will not provide or may revoke service if the gas line runs underground after the meter and then enters back into a building or structure with a living space.

This regulation does not apply to commercial and industrial customers. Gas service can be provided to commercial and industrial customers with underground piping after the meter. For commercial or industrial customers, it is their responsibility to meet the State of Maryland’s requirements for leak survey of their lines. Consult with the State for their requirements.

706-4 Pressure Testing

All new customer piping systems will be tested to insure integrity. The tests will be conducted by the customer’s qualified representative and witnessed by the appropriate personnel of the local jurisdiction having authority if deemed necessary. The following requirements are based on typical National Fuel Gas Code procedures (check with the local inspection authority for specific test requirements).

**Test Pressure:** Test pressure will be measured with a manometer or with a pressure measuring device designed and calibrated to read, record, or indicate a pressure loss due to leakage during the pressure test period. The source of pressure will be isolated before the pressure tests are made. The test pressure to be used will be no less than 1-1/2 times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), irrespective of design pressure.


Test duration will be 1/2 hour for each 500 cubic feet (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cubic feet (0.28 m³) or a system in a single-family dwelling, the test duration may be reduced to 10 minutes. For piping systems having a volume of more than 24,000 cubic feet (680 m³), the duration of the test will not be required to exceed 24 hours.


**Test Medium:** The test medium will be air, nitrogen, or carbon dioxide. **OXYGEN SHALL NEVER BE USED**


706-5 Purging

When applicable the service piping may require purging with inert gas prior to activation. Please consult with your BGE representative.
706-6 BGE Procedures for Activation of New Gas Service Installations

A. If the meter certificate has NOT been received, BGE will:

1. base the delivery pressure (standard, 2 PSIG, or other as specified) on the customer service agreement/contract;
2. complete the necessary tests and leak checks on the service;
3. leave the service valve in the “off” position (operated by BGE only);
4. set the meter bar assembly and install a meter nut plug at the meter inlet connection and perform a leak test;
5. leave the customer’s main gas valve in the “off” position and plug the point of service connection outlet and conduct a PSC leak check;
6. complete the “New Gas Service” tag (See Figure 706-5) which notifies the customer to call the licensed plumber to have the fuel line inspected. Note that the meter will not be set.

B. If the meter certificate has been received, BGE will:

1. base the delivery pressure (standard, 2 PSIG, or other as specified) per the certification;
2. complete the necessary tests and leak checks on the service;
3. leave the service valve in the “on” position (operated by BGE only);
4. set the meter bar assembly including the meter and leak test;
5. leave the customer’s main gas valve in the “off” position and plug point of service connection and conduct a PSC leak check;
6. complete the “New Gas Service” tag (See Figure 706-5) which notifies the customer to call the licensed plumber to introduce gas into the fuel line.
The following notification cards will be provided to the customer or left at the meter location, if the customer is not present, in the case of BGE encountering the above two conditions.

**Figure 706-5**

<table>
<thead>
<tr>
<th><strong>Attention: Customer, Gas Service Installed</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Your new natural gas service has been installed.</td>
</tr>
<tr>
<td>☐ Meter not installed. Contact your licensed plumber to have your fuel line inspected and approved by your local jurisdiction.</td>
</tr>
<tr>
<td>☐ Meter installed. Contact your licensed plumber to introduce natural gas into the fuel line.</td>
</tr>
<tr>
<td>If you have any questions, please call BGE at 410-850-4620 or 1-800-233-1854 outside the Baltimore metropolitan area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Attention: Licensed Plumber</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Only a licensed plumber or qualified agency shall tie in and introduce natural gas into this building.</td>
</tr>
<tr>
<td>Per the National Fuel Gas Code and local regulations, the licensed plumber is responsible for performing a leak test immediately after turning on the gas.</td>
</tr>
<tr>
<td>☐ BGE has installed a 2 PSIG meter bar regulator assembly; if this is incorrect, contact BGE prior to introducing natural gas into the customer’s building.</td>
</tr>
<tr>
<td>☐ BGE has installed a standard pressure meter bar regulator assembly; if this is incorrect, contact BGE prior to introducing natural gas into the customer’s building.</td>
</tr>
<tr>
<td>✓ Do NOT remove the Customer’s Main Gas Valve</td>
</tr>
<tr>
<td>✓ Multi-meter manifold installations, <strong>VERIFY</strong> customer’s fuel lines match the customer’s meter</td>
</tr>
<tr>
<td>✓ Meter assembly <strong>MUST</strong> remain plumb</td>
</tr>
</tbody>
</table>

**Attention: Customer, Gas Service Installed**

**Attention: Licensed Plumber**
706-7 BGE Procedures for Re-Connection of Existing Gas Service Installations (Relocations & Meter Increases)

A. Customer initiated jobs:

1. BGE will install a customer’s main gas valve (P.O.S. valve) at the outlet of the meter, which is plugged and placed in the "closed" position.

2. The customer is responsible for retaining a licensed plumber or qualified agency to bring (connect) the fuel line (piping) to the customer’s main gas valve (P.O.S.), re-introduce gas into the customer’s fuel line, and re-light the customer’s equipment at the completion of the job.

3. The licensed plumber or qualified agency shall NOT tie in a new fuel line until after the meter and/or service has been increased by BGE.

B. BGE initiated jobs:

1. BGE will introduce gas into the customer’s fuel line, and re-light the customer’s equipment at the completion of the job.

(Reference: BGE Gas Service Tariff, Customer’s Installation, Section 4.2)

C. Re-Lights: Proper Practices

1. Master valves to items such as furnaces and water heaters should be turned off before starting any work on the customer’s fuel line.

2. The job should be properly pressure and leak tested upon completion.

3. All necessary documentation should be completed.

4. Do not re-light appliances if the delivery pressures are different between the BGE metering equipment and the customer’s fuel line (piping) and/or equipment.

5. Do not re-use old fittings.

6. Do not use a series of nipples and couplings to achieve the proper length needed.

7. Do not apply pipe dope to the female threads of a fitting, apply it to all male threads.

8. Do not cut off a branch service unless all meters can be turned off, or there is an emergency.

9. Do not re-light appliances if they are found to be in an unsafe condition.
800 Typical Residential & Small Commercial Gas Meter Sets

800-1 General Comments

This section was developed to show drawings of typical meter sets that BGE may install. These drawings are to be used as reference for understanding the size of the meter sets. In addition, the following are general rules for the meter assemblies shown in this section.

A. A 6" minimum of exposed pipe from the bottom of the service riser valve or service flange connection to final grade must be allowed.

B. The vents from the regulators must face downwards. If the vent is not facing downwards, then piping shall be installed to direct the vent downwards.

C. A 12" minimum between final grade and the regulator's vent shall be maintained.

D. BGE uses insulated unions on the Service Valve and at the Point of Service on the Customer’s Main Gas Valve, therefore all gas meter assemblies are electrically insulated from the houseline. Do not electrically bond the houseline to the metering equipment.

E. Be sure that the respective clear work space is provided for each meter installation.

F. There must be a minimum of at least 1" between the back of the meter and the finished wall.

G. Inside meter installations are shown ONLY for locations that do not meet the BGE Outside Metering Policy. The regulator, if needed, shall be vented outside of the building.
801 Residential & Small Commercial Low Pressure (LP)

<table>
<thead>
<tr>
<th>801-1 Single Meter Set; 275; Outside</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Pressure (LP)</td>
<td>Standard</td>
<td>0 - 275</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 14" W x 32" H (min.) x 16" D
Minimum Clear Work Space Required: 38" W x 44" H x 52" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
801-2 Single Meter Set; 415; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Low Pressure (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>276 - 425</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 17" W x 37" H (min.) x 16" D

**Minimum Clear Work Space Required:** 41" W x 49" H x 52" D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping
### 801-3 Single Meter Set; 630; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Low Pressure (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>426 - 630</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:**
17" W x 37" H (min.) x 16" D

**Minimum Clear Work Space Required:**
41" W x 49" H x 52" D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping
801-4 Single Meter Set; 800; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Low Pressure (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>631 - 800</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 29" W x 36" H (min.) x 16" D
Minimum Clear Work Space Required: 53" W x 48" H x 52" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
### 802 Residential & Small Commercial Medium Pressure (MP)

<table>
<thead>
<tr>
<th>802-1 Single Meter Set; 275; Outside - Compact</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>Medium Pressure (MP)</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Standard</td>
<td>0 - 295</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 13" W x 34" H x 20" D  
**Minimum Clear Work Space Required:** 37" W x 46" H x 56" D  
**Important:** Gas Meter Assembly Must Be Insulated From House Piping  
BGE Reference Only 31-538
Approximate Space Requirement: 20" W x 34" H x 13" D
Minimum Clear Work Space Required: 37" W x 46" H x 49" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
BGE Reference Only 40-C89
Approximate Space Requirement: 24" W x 57" H (min.) x 20" D
Minimum Clear Work Space Required: 48" W x 69" H (min) x 56" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
802-4 Single Meter Set; 415/630; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>296 – 600 / 601 – 800</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 30" W x 38" H x 17" D
Minimum Clear Work Space Required: 66" W x 50" H x 54" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
If Installed Inside, Vent Must Be Extended Outside
BGE Reference Only 31-840
802-5 Single Meter Set; 800; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>801 - 1200</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 40” W x 38” H (min.) x 18” D
Minimum Clear Work Space Required: 64” W x 44” H x 54” D
Important: Gas Meter Assembly Must Be Insulated From House Piping
If Installed Inside, Vent Must Be Extended Outside
803 Residential & Small Commercial High Pressure (HP)

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>0 – 295 (std) or 0 – 330 (2 PSIG)</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 13" W x 34" H x 20" D

**Minimum Clear Work Space Required:** 37" W x 46" H x 56" D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping

BGE Reference Only 31-802 (std) or 31-801 (2 PSIG)
803-2 Single Meter Set; 275; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>0 – 295 (std) or 0 – 330 (2 PSIG)</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 20" W x 34" H x 13" D

**Minimum Clear Work Space Required:** 37" W x 46" H x 49" D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping

BGE Reference Only 31-060 (std) or 31-054 (2 PSIG)
**803-3 Single Meter Set; 275; Stacked Installation**

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>0 – 295 (std) or 0 – 330 (2 PSIG)</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 24” W x 57” H x 20” D

**Minimum Clear Work Space Required:** 48” W x 69” H (min) x 56” D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping
803-4 Single Meter Set; 415/630; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
<th>296 – 600 / 601 – 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>CFH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 30" W x 38" H x 17" D
Minimum Clear Work Space Required: 54" W x 50" H x 53" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
BGE Reference Only 31-842
### 803-5 Single Meter Set; 415/630; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>331 – 675 / 676 – 999</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 30" W x 38" H x 17" D

**Minimum Clear Work Space Required:** 54" W x 50" H x 50" D

**Important:** Gas Meter Assembly Must Be Insulated From House Piping

BGE Reference Only 40-C67
<table>
<thead>
<tr>
<th>803-6 Single Meter Set; 800; Outside</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Pressure (HP)</td>
<td>Standard</td>
<td>801 – 1200</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 32" W x 38" H x 18" D
Minimum Clear Work Space Required: 56" W x 50" H x 54" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
Approximate Space Requirement: 32" W x 38" H x 18" D
Minimum Clear Work Space Required: 56" W x 50" H x 54" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
804 Residential & Small Commercial Over High Pressure (OHP)

<table>
<thead>
<tr>
<th>804-1 Single Meter Set; 275; Outside</th>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td></td>
<td>CFH</td>
<td>0 – 295 (std) or 0 – 330 (2 PSIG)</td>
</tr>
</tbody>
</table>

**Approximate Space Requirement:** 24" W x 36" H x 16" D  
Minimum Clear Work Space Required: 48" W x 48" H x 52" D  
Important: Gas Meter Assembly Must Be Insulated From House Piping  
BGE Reference Only 31-533 (std) or 31-909 (2 PSIG)
804-2 Single Meter Set; 415;
Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>296 – 600 (std) or 331 – 675 (2 PSIG)</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 28" W x 39" H x 17" D
Minimum Clear Work Space Required: 48" W x 51" H x 53" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
BGE Reference Only 31-844 (std) or 40-C68 (2 PSIG)
804-3 Single Meter Set; 630; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 PSIG</td>
</tr>
<tr>
<td>CFH</td>
<td>601 – 800 (std) or 676 – 999 (2 PSIG)</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 30" W x 38" H x 17" D
Minimum Clear Work Space Required: 54" W x 50" H x 53" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
BGE Reference Only 31-844 (std) or 40-C68 (2 PSIG)
Approximate Space Requirement: 32" W x 39" H x 18" D
Minimum Clear Work Space Required: 54" W x 51" H x 54" D
Important: Gas Meter Assembly Must Be Insulated From House Piping
<table>
<thead>
<tr>
<th>804-5 Single Meter Set; 800; Outside</th>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delivery Pressure</td>
<td>2 PSIG</td>
</tr>
<tr>
<td></td>
<td>CFH</td>
<td>976 -1350</td>
</tr>
</tbody>
</table>

Approximate Space Requirement: 32” W x 39” H x 18” D
Minimum Clear Work Space Required: 54” W x 51” H x 54” D
Important: Gas Meter Assembly Must Be Insulated From House Piping
900 Typical Commercial & Industrial Gas Meter Sets

900-1 General Comments
This section was developed to show drawings of typical meter sets that BGE may install. These drawings are to be used as reference for understanding the size of the meter sets. In addition, the following are general rules for the meter assemblies shown in this section.

A. A 6” minimum of exposed pipe from the bottom of the service riser valve or service flange connection to final grade must be allowed.

B. The vents from the regulators must face downwards. If the vent is not facing downwards, then piping shall be installed to direct the vent downwards.

C. A 12” minimum between final grade and the regulator's vent shall be maintained.

D. BGE uses insulated unions on the Service Valve and at the Point of Service on the Customer’s Main Gas Valve, therefore all gas meter assemblies are electrically insulated from the houseline. Do not electrically bond the houseline to the metering equipment.

E. Be sure that the respective clear work space is provided for each meter installation.

F. There must be a minimum of at least 1” between the back of the meter and the finished wall.

G. BGE connections (outlet) sizes per meter size.

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>Outlet Piping Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>3/4”</td>
</tr>
<tr>
<td>415, 630</td>
<td>1 1/4”</td>
</tr>
<tr>
<td>800</td>
<td>1 1/2”</td>
</tr>
<tr>
<td>3M</td>
<td>2”</td>
</tr>
<tr>
<td>5M &amp; 7M</td>
<td>3”</td>
</tr>
<tr>
<td>11M, 16M &amp; 23M232</td>
<td>4”</td>
</tr>
<tr>
<td>23M &amp; 38M</td>
<td>6”</td>
</tr>
<tr>
<td>56M</td>
<td>8”</td>
</tr>
<tr>
<td>102M</td>
<td>10”</td>
</tr>
</tbody>
</table>

H. Inside meter installations are shown ONLY for locations that do not meet the BGE Metering Location Standard. The regulator, if needed, shall be vented outside of the building.
901 Commercial & Industrial Low Pressure (LP)

<table>
<thead>
<tr>
<th>901-1 Single Meter Set; 800; Outside</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Pressure (LP)</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>631 - 800</td>
<td></td>
</tr>
</tbody>
</table>

Assembly Dimensions: 25" W x 46" H x 17" D
Minimum Clear Work Space Required: 49" W x 58" H x 65" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 1 ½"
Assembly Dimensions: 26" W x 50" H x 24" D
Minimum Clear Work Space Required: 50" W x 62" H x 72" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 2"
901-3 Single Meter Set; 5M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Low Pressure (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>2581 - 3975</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 35" W x 57" H x 26" D
Minimum Clear Work Space Required: 59" W x 69" H x 74" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"
901-4 Single Meter Set; 7M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Pressure (LP)</td>
<td>Standard</td>
<td>3976 - 5400</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 32" W x 50" H x 24" D
Minimum Clear Work Space Required: 56" W x 62" H x 72" D
Pad Size Required: 3' x 4' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"

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901-5 Single Meter Set; 11M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Low Pressure (LP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>5401 - 7300</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 72" H x 28"
Minimum Clear Work Space Required: 74" W x 84" H x 76" D
Pad Size Required: 3' x 4' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"

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Table:

<table>
<thead>
<tr>
<th>901-6 Single Meter Set; 16M/23M232; Outside</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Pressure (LP)</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CFH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7301 – 9950 / 7301 – 10950</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 72" H x 32" D
Minimum Clear Work Space Required: 74" W x 84" H x 80" D
Pad Size Required: 3' x 4' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"
902 Commercial & Industrial Medium Pressure (MP)

<table>
<thead>
<tr>
<th>902-1 Single Meter Set; 3M; Outside</th>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td>CFH</td>
<td>801 - 3000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 59" H x 23" D
Minimum Clear Work Space Required: 74" W x 71" H x 71" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 2"

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902-2 Single Meter Set; 5M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>3001 - 5000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 55" W x 65" H x 26" D
Minimum Clear Work Space Required: 79" W x 77" H x 74" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"

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### 902-3 Single Meter Set; 7M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>5001 – 7000</td>
</tr>
</tbody>
</table>

**Assembly Dimensions:** 82" W x 66" H x 24" D  
**Minimum Clear Work Space Required:** 106" W x 78" H x 72" D  
**Pad Size Requirement:** 3' x 6' (min.) 4" – 6" Thick  
**Important:** Gas Meter Assembly Must Be Insulated from House Piping  
**Meter / Customer Main Valve Outlet Size = 3"**
<table>
<thead>
<tr>
<th>902-4 Single Meter Set; 11M; Outside</th>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td>CFH</td>
<td>7001 – 11000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 106" W x 66" H x 24" D
Minimum Clear Work Space Required: 130" W x 78" H x 72" D
Pad Size Requirement: 3' x 8' (min.) 4” – 6” Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"

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### 902-5 Single Meter Set; 16M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>11001 - 16000</td>
</tr>
</tbody>
</table>

---

**Assembly Dimensions:** 132" W x 66" H x 28" D  
**Minimum Clear Work Space Required:** 156" W x 78" H x 76" D  
**Pad Size Requirement:** 4' x 10' (min.) 4" – 6" Thick  
**Important:** Gas Meter Assembly Must Be Insulated from House Piping  
**Meter / Customer Main Valve Outlet Size = 4"**
902-6 Single Meter Set; 23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>16001 - 23000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 132" W x 66" H x 32" D
Minimum Clear Work Space Required: 156" W x 78" H x 80" D
Pad Size Requirement: 4' x 10' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"

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<table>
<thead>
<tr>
<th>902-7 Single Meter Set; 3M; Outside</th>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivered Pressure</td>
<td>Line Pressure</td>
<td></td>
</tr>
<tr>
<td>CFH</td>
<td>1000 - 3270</td>
<td></td>
</tr>
</tbody>
</table>

Assembly Dimensions: 26" W x 50" H x 24" D
Minimum Clear Work Space Required: 50" W x 62" H x 72" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 2"
Assembly Dimensions: 35" W x 57" H x 26" D
Minimum Clear Work Space Required: 59" W x 69" H x 74" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"

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902-9 Single Meter Set; 7M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Line Pressure</td>
</tr>
<tr>
<td>CFH</td>
<td>5451 - 7630</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 32" W x 50" H x 24" D  
Minimum Clear Work Space Required: 56" W x 62" H x 72" D  
Pad Size Required: 3' x 4' (min.) 4" – 6" Thick  
Important: Gas Meter Assembly Must Be Insulated from House Piping  
Meter / Customer Main Valve Outlet Size = 3"
902-10 Single Meter Set; 11M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Line Pressure</td>
</tr>
<tr>
<td>CFH</td>
<td>7631 - 11990</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 72" H x 28"
Minimum Clear Work Space Required: 74" W x 84" H x 76" D
Pad Size Required: 3' x 4' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"
902-11 Single Meter Set; 16M/23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Line Pressure</td>
</tr>
<tr>
<td>CFH</td>
<td>11991 - 17440 / 17441 - 25070</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50” W x 72” H x 32” D
Minimum Clear Work Space Required: 74” W x 84” H x 80” D
Pad Size Required: 3’ x 4’ (min.) 4” – 6” Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4”
**902-12 Single Meter Set; 3M; Outside**

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Medium Pressure (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>14” water column (½ psi)</td>
</tr>
<tr>
<td>CFH</td>
<td>1000 - 3070</td>
</tr>
</tbody>
</table>

**Assembly Dimensions:** 50” W x 59” H x 23” D

**Minimum Clear Work Space Required:** 74” W x 71” H x 71” D

**Important:** Gas Meter Assembly Must Be Insulated from House Piping

**Meter / Customer Main Valve Outlet Size = 2”**
903 Commercial & Industrial High Pressure (HP)

<table>
<thead>
<tr>
<th>903-1 Single Meter Set; 3M; Outside</th>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Pressure (HP)</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>801 - 3000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 68" H x 23" D

Minimum Clear Work Space Required: 74" W x 80" H x 71" D

Important: Gas Meter Assembly Must Be Insulated from House Piping

Meter / Customer Main Valve Outlet Size = 2"

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**Service Pressure**

| High Pressure (HP) |

**Delivery Pressure**

| 2 psig |

**CFH**

| 1000 - 3375 |

---

**903-2 Single Meter Set; 3M; Outside**

- **Service Pressure**: High Pressure (HP)
- **Delivery Pressure**: 2 psig
- **CFH**: 1000 - 3375

---

**Assembly Dimensions**: 50" W x 68" H x 23" D

**Minimum Clear Work Space Required**: 74" W x 80" H x 71" D

**Important**: Gas Meter Assembly Must Be Insulated from House Piping

**Meter / Customer Main Valve Outlet Size =2"**
903-3 Single Meter Set; 5M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>3001 - 5000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 50" W x 72" H x 26" D
Minimum Clear Work Space Required: 74" W x 84" H x 74" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"
<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pressure (HP)</td>
<td>2 psig</td>
<td>3376 - 5625</td>
</tr>
</tbody>
</table>

903-4 Single Meter Set; 5M; Outside

**Assembly Dimensions:** 50" W x 72" H x 26" D

**Minimum Clear Work Space Required:** 74" W x 84" H x 74" D

**Important:** Gas Meter Assembly Must Be Insulated from House Piping

**Meter / Customer Main Valve Outlet Size = 3"**
903-5 Single Meter Set; 7M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>5001 - 7000</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 82" W x 66" H x 24" D
Minimum Clear Work Space Required: 106" W x 78" H x 72" D
Pad Size Requirement: 3' x 6' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"

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903-6 Single Meter Set; 7M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>5626 - 7875</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 82" W x 66" H x 24" D
Minimum Clear Work Space Required: 106" W x 78" H x 72" D
Pad Size Requirement: 3' x 6' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"

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903-7 Single Meter Set; 11M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>7001 - 9000</td>
</tr>
</tbody>
</table>

**Assembly Dimensions:** 84" W x 66" H x 28" D

**Minimum Clear Work Space Required:** 108" W x 78" H x 72" D

**Pad Size Requirement:** 3' x 6' (min.) 4" – 6" Thick

**Important:** Gas Meter Assembly Must Be Insulated from House Piping

**Meter / Customer Main Valve Outlet Size = 4"**
### 903-8 Single Meter Set; 11M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pressure (HP)</td>
<td>2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>7876 - 12375</td>
</tr>
</tbody>
</table>

### 903-9 Single Meter Set; 16M/23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Pressure (HP)</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>9001 – 16000 / 16001 – 23000</td>
</tr>
</tbody>
</table>

---

**Assembly Dimensions:** 104" W x 66" H x 32" D  
**Minimum Clear Work Space Required:** 128" W x 78" H x 80" D  
**Pad Size Requirement:** 3' x 8' (min.) 4” – 6” Thick  
**Important:** Gas Meter Assembly Must Be Insulated from House Piping  
**Meter / Customer Main Valve Outlet Size = 4”**
903-10 Single Meter Set; 16M/23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>High Pressure (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>12376 – 18000 / 18001 – 25875</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 104" W x 66" H x 32" D
Minimum Clear Work Space Required: 128" W x 78" H x 80" D
Pad Size Requirement: 3' x 8' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"

Assembly Dimensions: 104" W x 66" H x 32" D
Minimum Clear Work Space Required: 128" W x 78" H x 80" D
Pad Size Requirement: 3' x 8' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"
904 Commercial & Industrial Over High Pressure (OHP)

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>801 - 3000 or 1000 - 3375</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 45" W x 62" H x 23" D
Minimum Clear Work Space Required: 64" W x 74" H x 71" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 2"

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<table>
<thead>
<tr>
<th>904-2 Single Meter Set; 5M; Outside</th>
<th><strong>Service Pressure</strong></th>
<th><strong>Delivery Pressure</strong></th>
<th><strong>CFH</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Over High Pressure (OHP)</td>
<td>Standard or 2 psig</td>
<td>3001 – 5000 or 3376 – 5625</td>
</tr>
</tbody>
</table>

**Assembly Dimensions:** 46" W x 68" H x 26" D

**Minimum Clear Work Space Required:** 70" W x 80" H x 74" D

**Important:** Gas Meter Assembly Must Be Insulated from House Piping

**Meter / Customer Main Valve Outlet Size = 3"**
<table>
<thead>
<tr>
<th>904-3 Single Meter Set; 7M; Outside</th>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delivery Pressure</td>
<td>Standard or 2 psig</td>
</tr>
<tr>
<td></td>
<td>CFH</td>
<td>5001 – 7000 or 5626 – 7875</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 102" W x 66" H x 24" D
Minimum Clear Work Space Required: 126" W x 78" H x 24" D
Pad Size Requirement: 3' x 8' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 3"
### 904-4 Single Meter Set; 11M/16M/23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard</td>
</tr>
<tr>
<td>CFH</td>
<td>7001 – 11000 / 11,001 – 16,000 / 16001 – 23000</td>
</tr>
</tbody>
</table>

### 904-5 Single Meter Set; 11M; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>7876 - 12375</td>
</tr>
</tbody>
</table>

---

**Assembly Dimensions:** 110" W x 66" H x 32" D  
**Minimum Clear Work Space Required:** 134" W x 78" H x 80" D  
**Pad Size Requirement:** 3' x 9' (min.) 4" – 6" Thick  
**Important:** Gas Meter Assembly Must Be Insulated from House Piping  
**Meter / Customer Main Valve Outlet Size = 4"**
904-6 Single Meter Set; 16M/23M232; Outside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Over High Pressure (OHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>12376 – 18000 / 18001 – 25875</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 110" W x 66" H x 34" D
Minimum Clear Work Space Required: 134" W x 78" H x 80" D
Pad Size Requirement: 3' x 9' (min.) 4" – 6" Thick
Important: Gas Meter Assembly Must Be Insulated from House Piping
Meter / Customer Main Valve Outlet Size = 4"

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905 Multi-Meter Manifold (HP)

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Delivery Pressure</th>
<th>CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various</td>
<td>Standard or 2 psig</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 - 1650, 3300, 4950</td>
</tr>
</tbody>
</table>

Assembly Dimensions: 76" W x 90" H x 16" D
Minimum Clear Work Space Required: 100" W x 102" H x 54" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
<table>
<thead>
<tr>
<th>905-2 6 - 12 - 18 Meter; Multi-Meter Manifold; Inside</th>
<th>Service Pressure</th>
<th>Various</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 psig</td>
<td></td>
</tr>
<tr>
<td>CFH</td>
<td>0 - 1650, 3300, 4950</td>
<td></td>
</tr>
</tbody>
</table>

Assembly Dimensions: 128" W x 90" H x 16" D
Minimum Clear Work Space Required: 152" W x 102" H x 54" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
905-3 Flex Office Space Various Meters; Multi-Meter Manifold; Outside/Inside

<table>
<thead>
<tr>
<th>Service Pressure</th>
<th>Various</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Pressure</td>
<td>Standard or 2 psig</td>
</tr>
<tr>
<td>CFH</td>
<td>0 - 7000</td>
</tr>
</tbody>
</table>

* Note 1: Customer to provide opening in walls if the manifold is located inside the building.

Assembly Dimensions: 168" W x 90" H x 16" D
Minimum Clear Work Space Required: 192" W x 102" H x 54" D
Important: Gas Meter Assembly Must Be Insulated from House Piping
1001 How to Read Your Meter

1001-1 Reading a gas meter dial index.
The following are instructions of how to read gas meter dial indexes. Most BGE meters have either four or five dials with pointers.

Note: The pointers rotate clockwise or counterclockwise as indicated in the illustration.

1. Always begin with the dial on the far right.
2. Record the lowest number the pointer has passed, even if the pointer has almost reached the next number.
3. Follow the same procedure for each dial. Note that as you move from right to left, each dial rotates in the direction opposite the one before it. If the first dial rotates clockwise, the next will rotate counterclockwise, the third clockwise, and so on.
4. The four- or five-digit number that you record is all we need to measure your energy use for the month.

In our example, the correct reading is 85900. The pointer on dial A moving clockwise has passed 0. The pointer moving counterclockwise on dial B has passed 0. The pointer on dial C has just passed 9. Dial D is 5 and E is 8. Record the numbers in reverse order, so the reading is 85900. Remember, you can always tell if a pointer has passed a number by looking at the dial immediately to the right of it. If the pointer on that dial has passed 0 on the top, the pointer on the dial to its left has passed the number that it is closest to.

Note: If your meter has a digital readout, simply record this number.
### 1002 Cubic Rate Charts

#### 1002-1 Cubic Rate Charts - Cubic Feet per Hour at Standard Delivery

Read from a 1/2 & 1 and 2 & 5 cubic feet dials

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<th>Seconds for One Revolution</th>
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### Cubic Rate Chart - Cubic Feet Per Hour at Standard Delivery

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1002-2 Cubic Rate Charts - Cubic Feet per Hour at 2 psig Delivery

Read from a 1/2 & 1 and 2 & 5 cubic feet dials

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</table>
1003 Pressure Factor Charts

1003-1 Pressure Factor Charts for commonly evaluated delivery. Some customers require a higher than Standard Delivery (about 6” w.c. or ¼ PSIG) for their equipment. A higher delivery pressure will allow more natural gas to flow through a pipe. Therefore a correction factor needs to be applied. Each elevated pressure above Standard Delivery needs to be multiplied by a correction factor in order to account for the “extra” gas. The table below shows correction factors for set elevated delivery pressures.

<table>
<thead>
<tr>
<th>Elevated Delivery Pressure (in PSIG)</th>
<th>Correction Factor</th>
<th>Elevated Delivery Pressure (in PSIG)</th>
<th>Correction Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.057</td>
<td>15</td>
<td>2.005</td>
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<tr>
<td>2</td>
<td>1.125</td>
<td>20</td>
<td>2.345</td>
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<tr>
<td>5</td>
<td>1.328</td>
<td>25</td>
<td>2.684</td>
</tr>
<tr>
<td>10</td>
<td>1.666</td>
<td>100</td>
<td>7.847</td>
</tr>
</tbody>
</table>

Example: If a section of pipe with a set diameter and length would allow 100 cfh of gas flow at Standard Delivery, what would happen if the same pipe now had 2 PSIG delivery? To find this, multiply the Standard Delivery of 100 cfh by the 2 PSIG correction factor of 1.125. The pipe could now pass 112.5 cfh.
1004 Clocking a Meter

1004-1 Clocking a meter is a simple way of knowing what a specific piece of equipment or all the equipment is consuming. To determine the consumption, we need to locate the smaller measuring dial on the gas meter. For this example, we will focus on the ½ cubic foot dial. With consumption on the meter, pick a location on the ½ cubic foot dial while it is on the up swing (counter-clockwise position from 6 o’clock to 12 o’clock). With a stop watch and your known location on the up swing of the ½ cubic foot, start recording the time it takes the ½ cubic foot hand to travel one full cycle around the dial till it reaches the start location again. Record the number of seconds it takes for the dial to make one full revolution. With this time reading from the stop watch, now take 3600 and divide it by the seconds it took to make one full revolution, this will give you the capacity. Since your used the ½ cubic foot dial, now divide the capacity by the ½. This is give you cubic feet per hour (cfh) consumed.

Example: Starting with the dial at “4”, measure the time it takes the dial to travel around once. If the dial took 20 seconds, then the gas consumed was 90cfh, assuming standard delivery*.

This is how the cfh was determined:

\[
\frac{3600 \text{ sec/hour}}{20 \text{ sec}} \times \frac{1 \text{ cubic foot hour}}{2} = 90 \text{ cfh}
\]

*If the delivery pressure was 2 psig, then 90 cfh would be multiplied by the correction factor of 1.125, which would give 101.25 cfh.