SOCALGAS®
NATURAL GAS SERVICE GUIDEBOOK

for
BUILDERS
PLUMBING CONTRACTORS
CITY AND COUNTY BUILDING INSPECTORS
EMPLOYEES AND CONTRACTORS

July 2018

The Natural Gas Service Guidebook is a guide to SoCalGas® requirements and policies for establishing natural gas service to new or remodeled applicant installations.

The information contained herein is made available for informational purposes. Although SoCalGas has used reasonable efforts to ensure the accuracy of the information at the time of its inclusion, no express or implied representation is made that it is free from error or suitable for any particular purpose. SoCalGas assumes no responsibility for any use thereof by you, and you should discuss decisions related to this subject with your own advisors and experts. In the event of a conflict between this Guidebook and any of CPUC tariffs, decisions and general orders, the tariffs, decisions and general orders shall control.

In addition to SoCalGas' requirements, local and state officials may require additional provisions for the installation of equipment or material in accordance with their authorized areas of responsibility and jurisdiction.

Questions regarding this Guidebook should be emailed to SoCalGas New Business Team (newbusinessprocesssteam@semprautilities.com) or your SoCalGas representative.

Applicant natural gas service and meter installation arrangements are subject to SoCalGas' review and approval.

NOTE: The trademarked name “SoCalGas” is used throughout this Guidebook to designate Southern California Gas Company.
SAFETY MESSAGE

Whether you’re planning to build a major development or just landscaping your yard, protect your safety and the safety of those around you by calling Underground Service Alert at 811 or by submitting a location request online at call811.com at least two working days (not including the day of notification) prior to excavating. You may call Underground Service Alert between 6 a.m. and 7 p.m., Monday through Friday (excluding holidays). Underground Service Alert will coordinate with SoCalGas and other utility providers in the area to mark the locations of buried utility-owned lines. There is no cost to you for this service and it can help prevent injury, costly property damage and loss of utility service. Here is a link for more info: Call 811.

WHAT TO DO

1. MARK out your proposed excavation area in white paint or provide other suitable markings. Note that some facility owners will not mark unless the area has been delineated.

2. CONTACT Underground Service Alert at 811 from 6 a.m. to 7 p.m., Monday through Friday (excluding holidays) or submit a location request at california811.org at least two working days before digging. Underground Service Alert will contact SoCalGas, as well as other local utilities, to mark the location of all utility-owned lines for free. Notifying Underground Service Alert prior to excavation is required by California law. Failure to comply can carry heavy fines.

3. WAIT to dig until the designated date and time of your appointment.

4. CONFIRM utilities have marked the proposed work area. Natural gas is indicated in yellow. If no natural gas facilities are in your work area you may get a call, email, or see writing on the ground that indicates “no conflict” or “no natural gas”.

5. USE only hand tools within 24 inches of each marked utility line to carefully expose the exact locations of all lines before using any power equipment in the area. SoCalGas does not mark customer-owned natural gas lines, which typically run from the meter to the customer’s natural gas equipment. To have customer-owned lines located and marked before a project, contact a qualified pipe-locating professional.

6. REPORT any pipe damage by calling us immediately at 1-800-427-2200. No damage is too small to report. Even a slight gouge, scrape or dent to a pipeline, its coating, or any component attached to or running alongside the pipe, such as a wire, may cause a dangerous break or leak in the future. Learn more about what to do if you damage or suspect damage to a pipeline or meter.

NOTE: SoCalGas does not mark customer-owned natural gas lines, which typically run from the natural gas meter to customer’s natural gas equipment and appliances. To have customer-owned lines located and marked, you should contact a qualified pipe-locating professional. Even if you’ve hired a contractor, make sure the contractor contacts 811 to have the natural gas lines marked.

PREFACE

SoCalGas has always striven to provide outstanding customer service and be a positive community influence, as well as deliver a safe, clean and affordable source of energy. Our customers have come to expect our exceptional service, and this Natural Gas Service Guidebook was written with that commitment in mind. The goal is to provide applicants with the knowledge to effectively navigate through SoCalGas’ service establishment process including the legal, regulatory, and safety considerations that may be required.

In addition to the SoCalGas requirements and recommendations in this Guidebook, applicants must comply with all applicable California Public Utility Commission (CPUC) decisions and general orders, as well as all SoCalGas’ tariffs and rate schedules. Finally, applicants must comply with all federal, state, and local agency regulations and inspection requirements.

In the event of a conflict between this Guidebook and any tariffs, rate schedules, decisions and general orders, the tariffs, rate schedules, decisions and general orders shall control.

Local and state ordinances require that builders/applicants obtain the appropriate permits and final inspections before SoCalGas can establish natural gas service (meter installation and turn on) to any building, equipment, or structure.
TABLE OF CONTENTS

Table of Contents  ii
Table of Figures  iv
Table of Tables  iv

SECTION 1 - GENERAL INFORMATION  1
1.1 Service Territory  1
1.2 Communications  2
1.2.1. SoCalGas.com Website  2
1.2.2. Email  2
1.3 Permits and Inspections  2
1.4 Design and Installation  2
1.4.1. SoCalGas Responsibilities  2
1.4.2. Applicant Responsibilities  2
1.4.3. Access to SoCalGas Facilities  3
1.4.4. Connecting Services  3
1.5 Advanced Meter Program  3

SECTION 2 - LINE EXTENSION PROCESS  3
2.1 Scope  3
2.2 Underground Service Alert (USA) Dial “811”  3
2.2.1 What to Do  3
2.3 Requesting a Natural Gas Service Line Extension – Six-Step Process  4
2.3.1. Step 1 – Submit Application  4
2.3.2. Step 2 – Planning  4
2.3.3. Step 3 – Contract  5
2.3.4. Step 4 - Construction  5
2.3.5. Step 5 – Meter Installation  6
2.3.6. Step 6 - Contract Compliance and Reconciliation  6
2.4 Relocation / Alteration of Existing Natural Gas Facilities  7
2.5 Service Design and Installation Options  7
2.5.1. Applicant Design  7
2.5.2. Applicant Install  7

SECTION 3 - NATURAL GAS SERVICE  7
3.1 General Requirements  7
3.2 Service Location  7
3.3 Number of Services  9
3.4 Excess Flow Valves  12
3.5 Trenching  12
3.6 Branch Services  14
<table>
<thead>
<tr>
<th>SECTION</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>NATURAL GAS METER SET ASSEMBLIES (MSA)</td>
</tr>
<tr>
<td>4.1</td>
<td>MSA Features 14</td>
</tr>
<tr>
<td>4.2</td>
<td>Number of Meters 14</td>
</tr>
<tr>
<td>4.2.1</td>
<td>Individual Meters versus Master Meter - Vented Appliances 14</td>
</tr>
<tr>
<td>4.2.2</td>
<td>Resale of Natural Gas (Sub-Metering) 15</td>
</tr>
<tr>
<td>4.3</td>
<td>Pressure 15</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Standard Delivery Pressure 15</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Elevated Delivery Pressure 15</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Single-family Residential Elevated Delivery Pressure 15</td>
</tr>
<tr>
<td>4.3.4</td>
<td>Multi-family Residential Elevated Pressure Program (2 psig delivery) 15</td>
</tr>
<tr>
<td>4.3.5</td>
<td>Elevated Pressure Houseline Verification - Agency Approval 15</td>
</tr>
<tr>
<td>4.4</td>
<td>Meter Location 16</td>
</tr>
<tr>
<td>4.4.1</td>
<td>General Requirements 16</td>
</tr>
<tr>
<td>4.4.2</td>
<td>Meter Protection 16</td>
</tr>
<tr>
<td>4.4.3</td>
<td>Preferred Meter Location 18</td>
</tr>
<tr>
<td>4.4.4</td>
<td>Discouraged Meter Locations - SoCalGas Approval Required 18</td>
</tr>
<tr>
<td>4.4.5</td>
<td>Prohibited Meter Locations 19</td>
</tr>
<tr>
<td>4.5</td>
<td>Single-family Residential Meter Configurations 19</td>
</tr>
<tr>
<td>4.6</td>
<td>Residential Multiple Meter Manifolds 20</td>
</tr>
<tr>
<td>4.7</td>
<td>Non-residential Single Meter Configurations 21</td>
</tr>
<tr>
<td>4.8</td>
<td>Non-residential Multiple Meter Manifolds 21</td>
</tr>
<tr>
<td>4.9</td>
<td>Marking House Lines for Multiple Meter Locations 21</td>
</tr>
<tr>
<td>4.10</td>
<td>Meter Cabinets, Recesses, and Enclosures 21</td>
</tr>
<tr>
<td>4.11</td>
<td>Meter Room Requirements 24</td>
</tr>
<tr>
<td>5</td>
<td>APPLICANT-OWNED PIPING (HOUSE LINE) 27</td>
</tr>
<tr>
<td>5.1</td>
<td>Service Delivery Point 27</td>
</tr>
<tr>
<td>6</td>
<td>ADVANCED METER LOCATION REQUIREMENTS 28</td>
</tr>
<tr>
<td>7</td>
<td>LOCATION OF APPLICANT-OWNED VALVES, STEP-DOWN REGULATORS, AND AUTOMATIC SHUT-OFF DEVICES 28</td>
</tr>
<tr>
<td>8</td>
<td>GROUNDING NATURAL GAS PIPE 28</td>
</tr>
<tr>
<td>9</td>
<td>NATURAL GAS FLOW PROTECTIVE EQUIPMENT 29</td>
</tr>
</tbody>
</table>
### TABLE OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>SoCalGas Service Territory</td>
<td>1</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Single Structure, Single Premise</td>
<td>8</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Mini Riser Vault (MRV)</td>
<td>8</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Residential, Two Structures w/Vented Appliances, Single Premise</td>
<td>9</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Residential - Multi-family/Three or more Structures on a Single Premise</td>
<td>10</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Residential - Multi-family/Three or more Structures on a Single Premise</td>
<td>10</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Service - Residential, Multi-family Single Structure, Multiple Legal Property Lines</td>
<td>11</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Multi-family Residential Single Structure, Single Premise</td>
<td>11</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Single Non-residential Enterprise, Single Premise, with Multiple Structures</td>
<td>11</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Multiple Non-residential Enterprises on a Single Premise, Single Structure</td>
<td>12</td>
</tr>
<tr>
<td>Figure 11</td>
<td>SoCalGas Trench Diagram</td>
<td>13</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Branch Service Diagram</td>
<td>14</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Meter Locations - Distance from Roadways</td>
<td>17</td>
</tr>
<tr>
<td>Figure 14</td>
<td>Typical Guard Post Installations</td>
<td>17</td>
</tr>
<tr>
<td>Figure 15</td>
<td>Offset and Spacing of Guard Posts</td>
<td>18</td>
</tr>
<tr>
<td>Figure 16</td>
<td>New Single Residential Natural Gas Meter Set Separation and Clearance Guidance Diagram</td>
<td>19</td>
</tr>
<tr>
<td>Figure 17</td>
<td>Single-family Residential Standard Delivery Natural Gas Meter Set - Top View</td>
<td>20</td>
</tr>
<tr>
<td>Figure 18</td>
<td>Multi-family Residential Three-Tier Standard Delivery Natural Gas Meter Set Guidelines</td>
<td>20</td>
</tr>
<tr>
<td>Figure 19</td>
<td>Natural Gas Meter Cabinet Guidelines</td>
<td>22</td>
</tr>
<tr>
<td>Figure 20</td>
<td>Single Natural Gas Meter Recess Guidelines</td>
<td>23</td>
</tr>
<tr>
<td>Figure 21</td>
<td>Natural Gas Meter Enclosure - Single Meter Surface Mount</td>
<td>23</td>
</tr>
<tr>
<td>Figure 22</td>
<td>Natural Gas Meter Enclosure - Multiple Meters Surface Mount</td>
<td>24</td>
</tr>
<tr>
<td>Figure 23</td>
<td>Conforming RF Signage Sample</td>
<td>27</td>
</tr>
<tr>
<td>Figure 24</td>
<td>Natural Gas Meter Service Delivery Point</td>
<td>27</td>
</tr>
<tr>
<td>Figure 25</td>
<td>Requirements for New Step-Down Manifolds for Non-Residential 2PSIG, 5PSIG and Above Systems</td>
<td>28</td>
</tr>
</tbody>
</table>

### TABLE OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Common Residential Equipment Connected Load Requirements (Mbtu/Hour)</td>
<td>4</td>
</tr>
<tr>
<td>Table 2</td>
<td>Meter Recess Dimensions and Riser and Houseline Spacing</td>
<td>22</td>
</tr>
</tbody>
</table>
SECTION 1
GENERAL INFORMATION

1.1 SERVICE TERRITORY

SoCalGas® has been delivering clean, safe and reliable natural gas to its customers for over 150 years. It is the nation's largest natural gas distribution utility, providing safe and affordable energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. The company's service territory encompasses approximately 20,000 square miles in diverse terrain throughout Central and Southern California, from Visalia to the Mexican border. SoCalGas currently has two operating regions and more than 45 operating bases throughout its service territory that provide customer service and natural gas operations for its customers. Planning organizations are centralized within the two operating regions with planners in various offices and bases throughout each region. Visit our website for more information about the communities we serve at the following link. SoCalGas Communities Served

FIGURE 1 - SoCalGas Service Territory
1.2 COMMUNICATIONS
To facilitate consistent and efficient service, line extension planning requests are submitted through a centralized process via the Line Extension Process page on the socalgas.com website. For those without Internet access, the service process can be initiated via phone by contacting the SoCalGas Customer Contact Center. Your contact information will be forwarded to the appropriate planning office and you will be contacted within 10 working days.

- For residential construction, call: 1-877-238-0092
- For non-residential construction, call: 1-800-427-2000

1.2.1. SOCALGAS.COM WEBSITE
SoCalGas’ website at socalgas.com has multiple sections designed to aid customers’ interactions with the utility at a single point of entry for billing, requests to start or stop utility service, energy efficiency programs, and other matters essential to providing natural gas service.

BUILDER SERVICES
Visit the socalgas.com Builder Services page to find information on various construction-related topics such as energy efficiency programs, line extension application forms, mapping submittal process, line extension process, contract brochures, etc.

ENERGY EFFICIENCY PROGRAMS
Visit the socalgas.com Energy Efficiency programs page to review a variety of energy-efficiency contracting opportunities to help our customers use energy more efficiently. There are programs ranging from single and multi-family residential to commercial and industrial facility equipment upgrade assistance.

RATES AND TARIFFS
Visit the socalgas.com Tariff page to find a listing of the current SoCalGas tariffs, rate schedules, preliminary statements, rules, forms, advice letters, maps and descriptions, cities and communities served, and other regulatory items.

NEW CONSTRUCTION STATUS TRACKER (NCST)
Visit the socalgas.com NCST page to follow the status of your online application for new natural gas service for both residential and nonresidential projects. It is accessible once you have received your confirmation email message that contains your Project Number and your unique five-digit access code. With the NCST, you will be able to specifically follow the status of the contract for your project, payment for the project, your project’s work order(s), and your project’s meter set(s). SoCalGas planning representatives can leverage the NCST to notify you of required documents needed for your project to proceed. You will also receive email notifications when key events take place during your project’s lifecycle and when key changes have been made to the project in the NCST. The goal of the NCST is to enhance communication between SoCalGas and the applicant/builder during the pre-construction and construction stages of a new natural gas service project. A survey will be sent upon project completion as a means of providing feedback to SoCalGas.

1.2.2. EMAIL
Please send your questions to the following email address:
Email: newbusinessprocesssteam@semprautilities.com
Email is the preferred method of submitting questions. It establishes a record for document tracking purposes.

1.3 PERMITS AND INSPECTIONS
Adherence to the following guidance is necessary for new and remodeling construction projects:

- Local city and county ordinances
- CPUC rules
- California rules and laws applicable to construction, including building, plumbing, mechanical, and electric codes

Local and state ordinances require that applicants obtain the appropriate permits and final inspections before SoCalGas establishes natural gas service (meter installation and turn-on) to any building or structure. SoCalGas will not establish natural gas service until the natural gas piping has been installed satisfactorily and has been released by the local inspection agency. In addition, SoCalGas’ inspection process may include SoCalGas-established safety based requirements not governed by local or state codes that will need to be satisfied and approved prior to natural gas service activation.

1.4 DESIGN AND INSTALLATION

1.4.1. SOCALGAS RESPONSIBILITIES
SoCalGas is responsible for planning, designing, and engineering service facilities and extensions using SoCalGas standards for material, design, and construction. All extension facilities installed under line extension procedures shall be owned, operated, and maintained by SoCalGas, except for substructures and enclosures that are on, under, within or part of a building or structure. SoCalGas is not required to serve via applicant-owned or private lines.

1.4.2. APPLICANT RESPONSIBILITIES
Applicants are required to submit “Application for Natural Gas Service” to initiate the line extension process (See Line Extension Process – Section 2.3). Applicants have the right to select either SoCalGas or a third-party SoCalGas-approved contractor to perform the natural gas service
design, installation, and trenching. (See Service Design and Installation Options – Section 2.5). Applicants must provide a clear unobstructed route from the nearest permanent and available SoCalGas distribution facility to the point at which natural gas services will be connected and have rights secured by law or under CPUC-approved tariff schedules. These rights include, but are not limited to: installing a locking device to prevent unauthorized access to SoCalGas facilities; providing safe and ready access for SoCalGas personnel, free from unrestrained animals; providing unobstructed access for SoCalGas vehicles/equipment to repair, maintain, and operate SoCalGas facilities; providing unobstructed access for SoCalGas personnel during the removal of SoCalGas facilities after termination of service.

1.4.3. ACCESS TO SOCALGAS FACILITIES
SoCalGas requires access to SoCalGas facilities at all times for any purpose connected with the furnishing of natural gas service (meter reading, inspection, testing, routine repairs, replacement, maintenance, emergency work, etc.).

1.4.4. CONNECTING SERVICES
Only SoCalGas personnel or agents duly authorized by SoCalGas may connect or disconnect service pipe to or from existing SoCalGas distribution facilities (Main/Service), or tamper, connect, disconnect, remove or perform any work on meters, regulators, tees or any other SoCalGas facility.

An unauthorized connection to SoCalGas natural gas facilities, or to facilities used to provide utility services, may be a violation of the California Penal Code, and subject the person to damages pursuant to California Civil Code, or otherwise.

1.5 ADVANCED METER PROGRAM
In late 2012, as part of a statewide CPUC effort to upgrade California’s energy infrastructure with automated metering technology, SoCalGas initiated the Advanced Meter Program. As part of the program, either a new meter or a communication device (module) will be installed on the existing meter to automatically and securely transmit measurement information via SoCalGas’ wireless radio frequency (RF) communication network.

Depending upon site conditions, SoCalGas may need to install additional equipment or require greater spacing on applicant buildings or premises to support the advanced meter communication network. For more information and to follow the Advanced Meter team’s progress as it transitions more than 5.9 million SoCalGas natural gas meters, please visit the SoCalGas Advanced Meter website at the following link: Advanced Meter.

For questions, please send email to: AdvancedMeter-NewBusinessTeam@semprautilities.com.

SECTION 2
LINE EXTENSION PROCESS

2.1 SCOPE
With many SoCalGas® departments involved and many local, state, and federal rules and regulations to follow, the process of establishing a new natural gas line can be confusing and complicated. This section clarifies the general SoCalGas service and meter requirements for residential and non-residential installations.

2.2 UNDERGROUND SERVICE ALERT (USA) DIAL “811”

Whether you’re planning to build a major development or just landscaping your yard, protect your safety and the safety of those around you by calling Underground Service Alert at 811 or submitting a location request online at cal811.com at least two working days (not including the day of notification) prior to excavating. You may call Underground Service Alert between 6 a.m. and 7 p.m., Monday through Friday (excluding holidays). Underground Service Alert will coordinate with SoCalGas and other utility providers in the area to mark the locations of buried utility-owned lines. There is no cost to you for this service and it can help prevent injury, costly property damage and loss of utility service.

2.2.1 WHAT TO DO
1. MARK out your proposed excavation area in white paint or provide other suitable markings. Note that some facility owners will not mark unless the area has been delineated.

2. CONTACT Underground Service Alert at 811 from 6 a.m. to 7 p.m., Monday through Friday (excluding holidays) or submit a location request online to california811.org at least two working days before digging. Underground Service Alert will contact SoCalGas, as well as other local utilities, to mark the location of all utility-owned lines for free. Notifying Underground Service Alert prior to excavation is required by California law. Failure to comply can carry heavy fines.

3. WAIT to dig until the designated date and time of your appointment.

For questions, please send email to: AdvancedMeter-NewBusinessTeam@semprautilities.com.
4. **CONFIRM** utilities have marked the proposed work area. Natural gas is indicated in yellow. If no natural gas facilities are in your work area you may get a call, email, or see writing on the ground that indicates “no conflict” or “no natural gas”.

5. **USE** only hand tools within 24 inches of each marked utility line to carefully expose the exact locations of all lines before using any power equipment in the area. SoCalGas does not mark customer-owned natural gas lines, which typically run from the meter to the customer’s natural gas equipment. To have customer-owned lines located and marked before a project, contact a qualified pipe-locating professional.

6. **REPORT** any pipe damage by calling us immediately at 1-800-427-2200. No damage is too small to report. Even a slight gouge, scrape or dent to a pipeline, its coating, or any component attached to or running alongside the pipe, such as a wire, may cause a dangerous break or leak in the future. Learn more about what to do if you damage or suspect damage to a pipeline or meter.

**NOTE:** SoCalGas does not mark customer-owned natural gas lines, which typically run from the meter to customer’s natural gas equipment and appliances. To have customer-owned lines located and marked, you should contact a qualified pipe-locating professional. Even if you’ve hired a contractor, make sure the contractor contacts 811 to have the natural gas lines marked.

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### TABLE 1 - Common Residential Equipment Connected Load Requirements (MBTU/Hour)

<table>
<thead>
<tr>
<th>Appliance Type</th>
<th>Natural Gas Usage MBTU/Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooking - Range Top</td>
<td>30 – 80</td>
</tr>
<tr>
<td>Cooking - Oven</td>
<td>30 – 50</td>
</tr>
<tr>
<td>Water Heating - Conventional Tank-type 30 to 50 Gal</td>
<td>30 – 50</td>
</tr>
<tr>
<td>Water Heating - Tankless or On-demand</td>
<td>120 – 199</td>
</tr>
<tr>
<td>Space Heating - Conventional Furnace</td>
<td>80 – 120</td>
</tr>
<tr>
<td>Space Heating - Hydronic Boiler</td>
<td>60 – 100</td>
</tr>
<tr>
<td>Space/Water Heating Combo - Hydronic Unit</td>
<td>80 – 150</td>
</tr>
<tr>
<td>Laundry - Clothes Dryer</td>
<td>30 – 50</td>
</tr>
<tr>
<td>Pool/Spa Heater</td>
<td>250 – 500</td>
</tr>
<tr>
<td>Natural Gas Fireplace</td>
<td>20 – 80</td>
</tr>
<tr>
<td>Natural Gas BBQ</td>
<td>20 – 60</td>
</tr>
<tr>
<td>Natural Gas Lights</td>
<td>2 – 5</td>
</tr>
</tbody>
</table>

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2.3 REQUESTING A NATURAL GAS SERVICE LINE EXTENSION - SIX-STEP PROCESS

2.3.1. **STEP 1 - SUBMIT APPLICATION**

After you have secured the appropriate permits for construction, submit your application for natural gas with the proposed natural gas facility installation date. The application, a “Request for Service,” is required for all new line extension requests and separated based upon customer class – either residential or non-residential. The application should be submitted online and may be accessed from the [Planning and Construction Services page](#).

For those without Internet access, the application process can be initiated via phone by contacting the SoCalGas Customer Contact Center:

- For residential construction, call: 1-877-238-0092
- For non-residential construction, call: 1-800-427-2000

To complete the application, it’s essential to accurately identify the structure’s connected load in MBTU units (1000 BTU = 1 MBTU = 1 CF) by equipment type or end-use for proper planning. Manufacturer labels should provide the appliances actual connected load. However, Table 1 (below) provides general connected load guidance for common residential equipment.

2.3.2. **STEP 2 - PLANNING**

After application submittal is received, a SoCalGas planning representative will contact you within 10 working
In addition to the cost information, depending upon your request, you will be required to execute several other documents on topics such as the odor conditioning, applicant-provided trench, grade and riser setback, curb and gutter indemnity, storm water agreement, applicant installation bid, elevated pressure, etc.

Execution (signed contract, documents, and payment, if applicable) is required within 90 calendar days of the contract generation date. Failure to comply will result in the re-calculation of costs based upon the then-current system generated costs.

2.3.4. STEP 4 - CONSTRUCTION

Once the contract and documents are signed, payment is posted (if required), and all other pre-requisites are satisfied (permitting, environmental, cultural, easements, etc.), your line extension project is ready for scheduling. There is a processing lead time of ten working days for the project to be at the scheduler. If a specific date is requested it must be within 90 calendar days after contract execution since SoCalGas natural gas facility construction must commence within 90 calendar days after contract execution. After that time if the installation of natural gas facilities has not begun for the project, SoCalGas has the right to revise the contract and recalculate the costs to reflect the then-current, system-generated costs of the project.

If builder/applicant’s scheduling changes from the planned installation that could result in either a reduction or increase in the contracted work, a change order will be created. If the change requires an additional payment, the payment must be made prior to construction or if during construction, within 30 calendar days after generation. Meters will not be set until the change order payment is satisfied.

When the change order results in a refund, SoCalGas will refund within 90 calendar days after construction is completed for service with no meter installation contracts; or within 90 calendar days after the completion date of the meter being set and turned on for contracts involving meters.

Applicants can decide if they would like the trench to be provided and backfilled by a contractor of their choice. The contractor must be Operator Qualified and be on an approved Drug & Alcohol plan to perform these two tasks, known as “Covered Tasks,” per 49 CFR 192 Subpart N. SoCalGas utilizes Veriforce® to verify the qualification of personnel performing Covered Tasks prior to contract generation and at work scheduling, and a SoCalGas Inspector visits the construction site to verify operator qualifications. If you are looking to get your contractor
Operator Qualified or have questions regarding Operator Qualification, the Drug and Alcohol plan, and Common Covered Tasks, please send your inquiry/question, name, and contact information to rs-opqualif@semprautilities.com. Total time is anticipated to be approximately three to four weeks to become an approved vendor (for minimum cover and backfill and to receive Drug & Alcohol plan approval). Having a dedicated person to follow up with all aspects of operator qualification and Drug & Alcohol plan on a daily basis, until completed, helps to minimize the amount of time it takes to be listed in Veriforce®.

If providing the trench, builders/applicants should be sure to have the trenching ready at a minimum of one working day prior to the scheduled natural gas facility construction date to avoid installation delays or additional costs. Also, it is the builder/applicant’s responsibility to provide shading materials and to cover the pipeline once it is installed by Operator Qualified personnel (per 49 CFR 192 Subpart N). Our installing crew cannot leave the site until shading is completed to our satisfaction, so be sure to have personnel and material at the ready on natural gas facility installation day and to ask SoCalGas about the appropriate shading material prior to work scheduling. When natural gas facility construction is completed, the natural gas line is ready for service and the meter installation can be scheduled.

It is recommended to coordinate with local agency building offices to ensure building code compliance to avoid house line approval issues. It is also essential to establish a billing account prior to requesting meter set and turn-on to avoid meter installation delays. SoCalGas has two ways to establish an account – either online (Start New Service) or by phone:

- Residential 1-877-238-0092
- Non-residential 1-800-427-2000

### 2.3.5. STEP 5 - METER INSTALLATION

For builder/applicants with multi-meter installations, requests for meter set and turn-on can be made prior to local agency final inspection and house line OK under the following conditions:

- The final inspection date is set and confirmed with the local agency
- Notification was made to the SoCalGas Meter Set Desk a minimum of three weeks prior to the final inspection date

Meter installations will then be pre-scheduled to occur four days after the anticipated inspection date. SoCalGas must receive the houseline okay at least 48 hours prior to this pre-scheduled install date or it will be rescheduled according to next availability.

The above conditions apply to multi-meter installations, single sets, and residential meters and does not apply to sets at higher than standard delivery pressure (2PSIG, e.g.). For all other meter set and turn-on requests, notify SoCalGas once the final inspection and houseline okay is complete. Our typical meter installation wait times are between seven to 14 business days after notification. Be aware that during the heating/re-lighting season (typically November through February) meter set and turn-on wait times can be more than 20 business days.

- Meter Set Desk Telephone – (800) 228-7377

### 2.3.6. STEP 6 - CONTRACT COMPLIANCE AND RECONCILIATION

If allowance was granted for your line extension contract, meter(s) must be turned on within six (6) months of the SoCalGas construction completion date (ready to serve) for projects that include main and service; or twelve (12) months for projects that do not involve main (service only). Failure to do so will result in a SoCalGas bill for the amount of allowance granted and any applicable additional funds such as the Income Tax Component of Contributions and Advances (ITCCA).

The ready-to-serve date is not usually the meter set date; rather, it is the date that natural gas service piping is gassed-up and verified at the service valve (stop-cock); or for main only contracts, the date that the main is tied into the existing system and gassed-up/energized.

Once the meter is turned on, the line extension project is reconciled within the following timelines:

- For residential, no later than one year after the ready to serve date.
- For non-residential, during the 36th month after the ready-to-serve date.

For residential contracts, earned allowance is verified based upon the installed end uses recorded during the meter set and turn on process performed by SoCalGas Customer Service personnel and then compared to the contracted end use. Deviations are investigated and if the actual end use is found to be different than what is contracted, a change order will be issued resulting in a bill with ITCCA. Failure to satisfy the reconciliation bill will result in withholding of upfront allowances for future projects until payment is made in full.

For non-residential contracts, earned allowance is dependent upon actual consumption as measured monthly for 36 months and then compared with the contracted projected consumption. The comparison takes the annualized amount of consumption either on a three-year average basis or the actual third year’s consumption – whichever is greater – against the projected consumption.
• If consumption is greater than projected, a refund up to the amount paid plus ITCCA will be issued within 90 calendar days of reconciliation.

• If consumption is less than projected, a bill for the difference between projected and actual consumption plus applicable ITCCA will be issued. Payment must be received within 30 calendar days of receipt. Failure to satisfy the reconciliation bill will result in withholding of upfront allowance for future projects until payment is made in full. For main related projects, a monthly main ownership will be incurred and reduce the remaining refundable portion.

To mitigate reconciliation billing, SoCalGas has adopted a policy that withholds upfront allowance for non-residential space heating only projects and projects where it's known that meters will not be installed within the required timelines. Non-residential space heating-only projects will receive a refund up to the amount paid including ITCCA at the three-year reconciliation.

2.4 RELOCATION / ALTERATION OF EXISTING NATURAL GAS FACILITIES

Customers/builders should contact SoCalGas as early as possible when plans call for abandonment, relocation or alteration of existing service or meter set assemblies. To begin the process of submitting a request for relocation/alteration of an existing natural gas facility, contact the SoCalGas Customer Contact Center by phone:

- Residential – 1-877-238-0092
- Non-Residential – 1-800-427-2000

Your request will be recorded and sent to a SoCalGas planner in your request area. The planner will arrange a site visit to review your request. For service abandonment requests, provide proof of a demolition permit and/or new building construction permit to the planner, and state if you plan to rebuild and require a new service for a new structure. The planner will discuss the various service options to meet your needs and develop a cost estimate for your approval/signature to serve those needs. No natural gas facility work can be scheduled or commence until full payment is received and recorded.

To reduce costs, applicants can provide their own service-trenching on their private property. Trenching requirements and guidance will be provided upon request.

Residential customers needing to upsize their existing meter because of the addition of new natural gas appliances will also need to contact the SoCalGas Customer Contact Center by phone.

2.5 SERVICE DESIGN AND INSTALLATION OPTIONS

Per Rule 20 and Rule 21, applicants have the right to select either SoCalGas or a third-party SoCalGas-approved contractor to perform the natural gas service design, installation, and trenching. Upon applicant designation on the “Request for Service” application, SoCalGas will provide a bid for applicant design or installation costs. Specific conditions must be met to utilize an applicant design or install.

2.5.1. APPLICANT DESIGN

SoCalGas requires every applicant designer to be a current California registered professional engineer in good standing, qualified for distribution natural gas design, have significant insurance, and pass the SoCalGas applicant design qualification test. If interested in becoming an approved SoCalGas applicant designer, please send an email to the newbusinessprocesssteam@semprautilities.com requesting the applicant design information packet.

2.5.2. APPLICANT INSTALL

SoCalGas requires every Applicant Installer to be certified and approved by SoCalGas. Applicant Installers can only perform 4-inch and smaller diameter polyethylene (PE), medium pressure (<60psig) installations. Knowledge and training required includes: SoCalGas-approved PE fusing/joining performance course, SoCalGas-approved operator qualification certification, demonstrated proper use of material and equipment necessary to perform natural gas pipe installation as well as other installation and administrative requirements.

If you are interested in becoming an Applicant Installer, please send an email to the newbusinessprocesssteam@semprautilities.com requesting the Applicant Installer qualification information packet.

As Rule 20 and Rule 21 indicate, if the applicant elects to utilize an Applicant Installer, it is the applicant’s responsibility to locate and contract with a SoCalGas-approved Applicant Installer.

SECTION 3
NATURAL GAS SERVICE

3.1 GENERAL REQUIREMENTS

A natural gas service lateral is the section of pipe that connects from the SoCalGas® distribution main in the public street or easement to the service riser located on the customer’s premise. It is typically constructed of
polyethylene (PE) pipe material although steel pipe is installed when required by ordinance, code or SoCalGas system integrity.

### 3.2 SERVICE LOCATION

Service lateral facilities shall extend:

a) In public property - from the point of connection at the distribution main to the applicant’s nearest property line along any street, highway, and easement which SoCalGas has or will install distribution main.

b) In private property - along the shortest, most practical and available route that is clear of obstruction (leakage patrol requirement) to reach the SoCalGas-agreed-to service delivery point. Avoidance of steep banks, excessive moisture, retaining walls, and plowed lands is encouraged.

- Services should be installed perpendicular to the source main. Diagonal or cross lot installations are not acceptable (See Figure 2).
- Each natural gas service must have a shutoff valve located outside of a building in a readily-accessible location and cannot be in a privately-locked security area.
- SoCalGas does not permit service installation:
  a) under or through buildings and retaining walls/structures
  b) directly into concrete or asphalt pavement materials
  c) below underground structures, breezeways, concrete pads, wood decking, or carports
- Riser spacing - Accurate finish grade and riser locations are necessary to complete the integrity of the natural gas installation. SoCalGas installation crews will install the natural gas risers to the location and grade that the applicant/builder provides.
- Riser damage - Once a service and riser is installed to finished grade, any changes in location, finished grade or other reason resulting in an unsatisfactory location, all costs shall be borne by the builder/applicant. "Mini-riser vaults" (MRVs) (see Figure 3) are now installed as a corrective action, at the builder/applicant's expense, to protect a riser in an unsatisfactory location.

**FIGURE 2 - Single Structure, Single Premise**

**FIGURE 3 - Mini Riser Vault (MRV)**
3.3 NUMBER OF SERVICES

- SoCalGas will not normally provide more than one Service lateral, including associated facilities, for any one building or group of buildings for a single enterprise on a single premise, except if required by:
  a) Tariff Rules or Rate Schedules
  b) Utility Convenience
  c) Local Ordinance
  d) Other - Utility can install additional services for customer benefit as a Rule 2 special facility installation

SERVICE CONSTRUCTION EXAMPLES TO ILLUSTRATE ACCEPTABLE PRACTICES:

a) Residential - Two Dwelling Unit Structures with Vented Appliances/Single Premise

Generally, one service to each structure is provided; meters located at one location per structure. If space is limited and a meter easement can be obtained, one service with a meter manifold can be installed. Additional services to a single structure can be granted and are subject to allowance if it is determined by SoCalGas to best serve the structure at more than one location. Additional services for applicant benefit (minimizing house piping, proximity, etc.) may be installed but do not qualify for allowance and may be subject to Rule 2 special facilities ownership charges.

FIGURE 4 - Residential, Two Structures w/ Vented Appliances, Single Premise
b) Residential – Multi-family/Three or More Structures on a Single Premise with No Vented Appliances in each Dwelling Unit

When three or more multi-family structures are on the same premise and do not have individual vented appliances serving each dwelling unit (central water/space heating serves all units in common), SoCalGas may install a natural gas distribution main and a single individual service and meter to each structure provided the following conditions are met:

a. An accessible and protected location exists for SoCalGas use
b. An easement, right-of-way, or permit to install natural gas facilities on the premise at no cost to SoCalGas

Additional services to a single structure can be granted and are subject to allowance if it is determined by SoCalGas to best serve the structure at more than one location. Additional services for applicant benefit (minimizing house piping, proximity, etc.) may be installed but do not qualify for allowance and may be subject to Rule 2 special facilities ownership charges. Additionally, a single service with individual natural gas meters may be requested for structures where dwelling units do not have vented appliances. For further information, please see Section 4.2.1 – Individual Meters Versus Master Meter -Vented Appliances.

FIGURE 5 - Residential - Multi-family/Three or More Structures on a Single Premise with No Vented Appliances in Each Dwelling Unit

SoCalGas Main Requires Easement/ROW

One Meter per Bldg

Each Bldg has Central Space/Water Heating

Lot Line

Natural Gas Main

Public Street

FIGURE 6 - Residential - Multi-family/Three or More Structures on a Single Premise with Vented Appliances in Each Dwelling Unit

When three or more multi-family structures are on the same premise and have individual vented appliances serving each dwelling unit, SoCalGas will serve each building with individual meters but requires an easement/right-of-way (ROW) for main installation.

Additional services to a single structure can be granted and are subject to allowance if it is determined by SoCalGas to best serve the structure with individual meters at more than one location. Additional services for applicant benefit (minimizing house piping, proximity, etc.) may be installed but do not qualify for allowance and may be subject to Rule 2 special facilities ownership charges.
d) **Residential Contiguous Dwellings (Condos/Townhomes) (single structure)**

i. If each dwelling unit is bounded by its own legal property lines on the same parcel, then a separate service is required for each dwelling unit and located within the serving property. See Figure 7.

ii. If each dwelling unit is divided by assumed property lines, then dependent upon agency inspection/approval, SoCalGas will either serve with individual services (if required for agency approval) or through one service serving a meter bank (preferred). If required by agency for approval, the builder must obtain easements for house lines that cross assumed property lines from the governing agency before SoCalGas will install natural gas meter facilities. See Figure 8.

e) **Single Non-residential Enterprise, Single Premise with Multiple Structures**

One service per premise capable of serving the permanent, bona fide load. Additional services can be provided and are subject to allowance and Rule 2 special facilities ownership charges. See Figure 9.
f) Multiple Non-residential Enterprises on a Single Premise in a Single Structure (Strip Mall or Spec Building)

FIGURE 10 - Multiple Non-residential Enterprises on a Single Premise, Single Structure

| Multiple Non-Residential Enterprise, Single Premise, in a single structure (strip mall) |
| One Service capable of serving full bona-fide load |
| Installation Costs Are Subject to Allowance |
| Additional Services are based upon Utility Discretion and may be subject to Rule 2 charges |

All Meters at the same location

One service is capable of serving the permanent, bona fide load. A second service can be installed and is subject to allowance depending upon the utility’s discretion (reduces utility cost to serve).

No upfront allowance will be granted when bona fide load is unknown or for space heating only.

Actual consumption or earned allowance will be issued as a refund at the 3 year reconciliation (3 years from the first meter turn-on date).

3.4 EXCESS FLOW VALVES AND CURB VALVES

An excess flow valve (EFV) is a device installed underground on the natural gas service line designed to limit the flow of natural gas to a predetermined level if there is a complete break in the service line. If tripped, the EFV has a bypass feature that automatically resets the valve once the service line is no longer leaking and pressure equalizes across the valve.

An EFV is required on all new and/or replaced natural gas service installations per Code of Federal Regulations (CFR) 49 Parts 192.381 & 192.383. A manual service line shut-off valve, or curb valve, may be installed in lieu of an EFV when the total load of the service line is greater than 1,000 CFH.

3.5 TRENCHING

SoCalGas is the default provider of trench for the natural gas facility installation. However, Rule 21 has provisions that allow builder/applicants to provide their own trench with the potential to receive credit if allowance exceeds total cost. The following are guidelines for applicant-provided trench. Your SoCalGas planner will provide further details if needed.

**General**

a) The entity providing the trench is considered the trench owner and is responsible for all local ordinance, permit and resurfacing.

b) The trench must comply with CPUC and DOT regulations and with SoCalGas trench specifications.

c) Only dry utilities (power, telephone, CATV, street lighting) are allowed in joint trench with natural gas.

d) No wet utilities (water/sewer/landscaping) are allowed in a joint trench.

**Separation from Natural Gas Pipe/Line**

e) At least 60 inches of undisturbed earth must separate a dry utility trench from a wet utility trench.
f) Power/electric - within the joint trench, a minimum of 12 inches of separation in all directions.

g) CATV, telephone and other dry substructures – within the joint trench, a minimum of 12 inches of separation in all directions.

**Depth or Cover over Natural Gas Pipe/Line for New Installations**

h) 30 inches minimum cover on private property (24 inches if conditions warrant – SoCalGas approval required).

i) 30 inches minimum cover to finished grade when behind curb (parkway) in public easement.

j) 30 inches minimum cover to finished grade (flow line) when in street (between curbs) in public easement.

k) 32 inches minimum cover for 4” and larger diameter pipe.

l) 42 inches maximum cover to finished grade in street/public easement.

**Trench Width for Service Natural Gas Pipe/Line**

m) 18 inches minimum width for 2-inch or smaller diameter natural gas-only pipe trench

n) 24 inches minimum width for greater than 2-inch natural gas-only pipe trench

o) 18 inches minimum width for 5 feet from coupling

p) 24 inches minimum width at service to main connection

**Bedding for Service Natural Gas Pipe/Line**

a) 6 inches minimum bed of rock and debris-free sand

**Backfill Material for Natural Gas Pipe/Line**

b) 12 inches minimum cover of rock-free sand over natural gas pipe in normal soil

c) 18 inches minimum cover of rock-free sand over natural gas pipe in rocky soil

d) Native back fill is encouraged to complete backfill

**FIGURE 11 - SoCalGas Trench Diagram**

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**EXAMPLE 1**

BETWEEN CURBS

STREET

TRENCH

CURB FACE

FLOWLINE

**EXAMPLE 2**

BEHIND CURBS

TRENCH

R/W

**NOTE:**

SoCalGas will only participate in a “dry utility” joint trench. 4” and larger diameter pipe requires 32” min. cover.

Trench cannot parallel wet utilities within 5’. Finished grade is top of curb when behind curb and flowline when between curbs.
3.6 BRANCH SERVICES

A branch service is a pipe that branches off a natural gas service or standard pipe. A branch service is typically installed between two adjacent residential structures that front the same street and have meter locations adjacent to one another. An easement or right-of-way (ROW) is required for all cross-lot branch services.

SoCalGas limits the use of cross-lot branch service installations due to property disputes among owners, potential damage from property line fencing, and potential service capacity issues.

If a cross-lot branch service is the only feasible method to serve your property, SoCalGas will attempt to contact your neighboring property owner to obtain an easement/ROW prior to finalizing planning and construction. If the owner is unresponsive or does not wish to honor our request, it is the builder/applicant’s responsibility to pursue the matter further. SoCalGas will not install a cross-lot branch service without an easement.

As a note, SoCalGas cannot force reluctant neighboring property owners to authorize an easement/ROW nor will SoCalGas participate in any legal contract or dispute mitigation that develops as a result.

Below is an example of a residential branch service arrangement.

FIGURE 12 — Branch Service Diagram

SECTION 4
NATURAL GAS METER SET ASSEMBLIES (MSA)

4.1 MSA FEATURES

A natural gas meter set assembly (MSA) generally consists of the following features:

- Natural gas meter
- Service regulator
- Natural gas shut-off valve (additional valves installed if required)
- Bypass tee fittings to facilitate SoCalGas maintenance of the MSA
- Mini-riser vault – mechanical fitting to protect riser from external damage

When required especially for high volume MSAs, SoCalGas® will install filtration, additional by-pass capabilities, monitor regulation, and various other equipment necessary to ensure safety and natural gas measurement accuracy.

4.2 NUMBER OF METERS

SoCalGas will normally install only one meter for a single family residence or a single non-residential enterprise on a single premise, except:

- When otherwise required or allowed under SoCalGas Tariff Rules (see Rule 20 and Rule 21)
- At the option of and as determined by SoCalGas Engineering for its operating convenience
- When required by law or local ordinance
- When additional services are granted by SoCalGas under the Rule 2 provisions

4.2.1. INDIVIDUAL METERS VERSUS MASTER METER - VENTED APPLIANCES

Per Rule 13, SoCalGas is obligated to individually meter all new multi-unit residential structures where multi-tenants use natural gas directly in natural gas appliances that individually serve each occupancy and which require venting.

CPUC defines natural gas appliances that require venting as those that require venting for combustion product purposes. Space heating (furnaces, a fireplace that provides the dwelling units' sole source for space heating, etc.) and water heaters (conventional tank or tankless) require venting for combustion purposes—see Public Utilities Code, Section 780.5. [http://codes.findlaw.com/ca/public-utilities-code/puc-sect-780-5.html](http://codes.findlaw.com/ca/public-utilities-code/puc-sect-780-5.html)
A single natural gas meter (master meter) can serve an entire multi-unit complex in which the natural gas is used only for central water/space heating purposes that supply all tenants in common or in which each unit has its own natural gas cooking and/or natural gas laundry (clothes drying). Individual meters, in addition to the master meter, may be requested for individual dwelling units with no vented appliances.

4.2.2. RESALE OF NATURAL GAS (SUB-METERING)
“Sub-metering,” by definition, is a system that allows a landlord to bill tenants for individual measured utility usage through the installation of customer owned sub-meters. Per Rule 24, only a Utility can bill a customer for energy consumption and a landlord shall not charge their tenants for natural gas received through a single meter except where the cost of natural gas is absorbed in the rent for each individual tenant and the monthly rent does not change due to the natural gas consumption of each individual tenant. Rule 24 prevents landlords/customers of residential and non-residential properties from installing sub-meters for billing purposes unless they become a utility and comply with all of the state regulatory and billing compliance requirements.

Non-Residential applicants/customers are allowed to install sub-meters on their house line, and for new residential construction, customer owned sub-meters on house line is allowed provided Rule 13 is also not impacted. Per Rule 13, as long as there are no vented appliances within the individual dwelling units, which requires SoCalGas to install individual SoCalGas meters, and the builder/applicant complies with the conditions as it relates to Rule 24, sub-meter installation on house line is acceptable. Additionally, the applicant/customer/landlord must follow the requirements outlined in Sections 5-9 of this guidebook for applicant owned piping (house line).

4.3 PRESSURE

4.3.1. STANDARD DELIVERY PRESSURE
Per Rule 2, Section 3 - Pressure, SoCalGas provides natural gas service pressure to the service delivery point at 8” water column or approximately 1/3 psig as measured at the MSA’s natural gas outlet.

4.3.2. ELEVATED DELIVERY PRESSURE
Per Rule 2, for connected loads of 1 million BTU/hour or greater, SoCalGas will deliver elevated pressure upon request and acceptance at the following elevated pressures:
- Two pounds
- Five pounds
- Service at as-available fluctuating pressures from the point of service
- Such other pressure as agreed upon by SoCalGas and the customer

As indicated on the “as-available” elevated delivery pressure letter, SoCalGas reserves the right to reduce the natural gas service pressure to either a lower elevated pressure or standard delivery pressure, without liability, when:
- It is determined that the elevated natural gas pressure will no longer be available
- Current delivery pressure is detrimental to SoCalGas’ natural gas distribution system

4.3.3. SINGLE-FAMILY RESIDENTIAL ELEVATED DELIVERY PRESSURE
For single-family residential construction, SoCalGas offers an elevated pressure program that enables developers to reduce plumbing costs by receiving elevated pressure at 2 psi. For more information, please visit: Residential New Construction 2 PSIG Program. For single-family residential elevated pressure requests at 5 PSIG, there is a greater criterion (over 400’ of yard line required, 4” or greater diameter yard line at standard delivery required to meet load, etc.) than Rule 2’s 1 million BTU/Hr of connected load requirement. It is evaluated on a case-by-case basis by SoCalGas Gas Operations. Builders/applicants/plumbers should never presume its availability. A Rule 2 special facility ownership charge may be assessed if pressure is needed for appliance operation but fails to meet the residential pressure criterion.

4.3.4. MULTI-FAMILY RESIDENTIAL ELEVATED PRESSURE PROGRAM (2 PSIG DELIVERY)
For multi-family residential construction, SoCalGas offers an elevated pressure program that enables developers to reduce plumbing costs by receiving elevated pressure at 2psig. For more information, please visit the following link: Residential New Construction 2 PSIG Program

4.3.5. ELEVATED PRESSURE HOUSE LINE VERIFICATION - AGENCY APPROVAL
Prior to natural gas delivery, builder/applicants are responsible for obtaining house line approval for elevated pressure and SoCalGas must receive notification of the approval from the local governing agency. Once received, the SoCalGas planner will release the job for meter set scheduling. Meter set scheduling is not performed by the planner or the planning office. Builders must verify with the local governing agency to determine when the house line notification status or submittal.
4.4 METER LOCATION

4.4.1. GENERAL REQUIREMENTS
SoCalGas operates with multiple CPUC-governed electric service providers (PG&E, Southern California Edison, San Diego Gas and Electric) as well as several municipal electric service providers (LADWP, City of Anaheim, City of Glendale, etc.) each of which has unique and conflicting meter clearance requirements. In the past, SoCalGas has avoided establishing a single specific meter location requirement guideline to enable applicants to meet the electric service needs.

However, the following basic meter location requirements are consistent and must be maintained for all new SoCalGas natural gas meter installations.

SoCalGas requires all meter set assembly (Meter, riser, fittings, etc.) locations to be:

- Protected from vehicular damage or other potential hazards (corrosive environment, etc.) either by location or engineered/installed protection when:
  - within 3 feet of:
    - parking/garage spaces
    - single family residential driveways
    - commercial refuse containers
    - paved areas with curbs
  - within 8 feet of:
    - multi-family or commercial driveways without SoCalGas approved barrier
    - freight or shipping docks
    - paved areas without curbs
  - when located away from the serving structure:
    - within 40 feet of a road with a 40 MPH or greater speed limit
- 36 inches (measured from the closest natural gas facility in all directions) of a source of ignition. Sources of ignition include, but not limited to:
  - Electric meter
  - Electrical outlet (explosion proof electric outlets excluded)
  - Air conditioner condenser
  - Communications enclosure, cable box, telephone box
  - Any other electrically-powered device

- To enable operation and maintenance; require and maintain an unobstructed, flat and level working space in front of the MSA, at least 36 inches measured from the structure wall face (see Figure 15 and 16).

- Meter set assembly (meter, riser, fittings, etc.) cannot be placed within eight horizontal feet (96 inches) of an air inlet or intake of any forced-air furnace, ventilating fan or central air conditioning unit (see Figure 16).
- For most typical single-family residences, customer house lines would be located 11 to 19 inches horizontally from the natural gas riser depending upon meter capacity (see Figure 16).
- If potential hazards, unsafe conditions or access limitations exist, SoCalGas may locate the meter at or near the property line or away from the hazard. SoCalGas planners will determine the appropriate location after pre-construction site inspection.
- The meter location shall be evaluated in regards to traffic proximity to provide the least potential for damage by vehicles.
  - The following recommended locations will greatly reduce the risk of vehicular damage:
    - 100 feet or greater from the edge of pavement (EP) or curb face of any primary or secondary roadway intersection.
    - 40 feet or greater from the edge of pavement (EP) or curb face of any primary or secondary roadway.
    - 20 feet or greater from the edge of pavement (EP) or curb face of any local roadway. See Figure 13 below.
  - Roadway descriptions can be referenced on the California Road System (CRS) Maps website.
  - Local roadways are considered small residential.

4.4.2. METER PROTECTION
For new business installations, the applicant, builder, or developer is responsible for installing meter guards. Meter guards are required where aboveground meter set assemblies (MSA) are within three feet of driveways, roadways, alleys, parking stalls, wheel bumpers, trash collection areas and areas where industrial equipment (forklifts, loaders, etc.) may operate. See Section 4.4.1.

Meter guards may be used in conjunction with manmade barriers such as wing walls, planters, steps, fences, and fireplaces to provide adequate protection to the MSA. See Figures 14 and 15 for guidelines on guard post installation and spacing. SoCalGas planners will determine the proper type of protection needed for your application.
FIGURE 13 – Meter Locations – Distance from Roadways

FIGURE 14 - Typical Guard Post Installations

ALL POSTS ARE CONCRETE FILLED
Mix concrete using the following ratio: 1 part Portland cement, 2-1/2 parts sand, 3-1/2 parts gravel, or 5 sacks commercial ready-mix. Maximum water content is 7 gallons per 94 lb sack of cement. Use 3/8” to 3/4” gravel.
### FIGURE 15 - Offset and Spacing of Guard Posts

#### OFFSET AND SPACING OF GUARD POSTS

<table>
<thead>
<tr>
<th>Width of MSA (&quot;A&quot;)</th>
<th>No. of Posts Required</th>
<th>Offset From Face and Corner of MSA (&quot;B&quot;) Max. 26&quot;</th>
<th>Spacing of Posts (&quot;C&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot; to 52&quot;</td>
<td>3</td>
<td>&quot;A&quot;/2 (14&quot; Min. Light &amp; Medium duty) (18&quot; Min. Heavy duty)</td>
<td>2 x &quot;B&quot;</td>
</tr>
<tr>
<td>52&quot; to 105&quot;</td>
<td>4</td>
<td>&quot;A&quot;/4 (14&quot; Min. Light &amp; Medium duty) (18&quot; Min. Heavy duty)</td>
<td>2 x &quot;B&quot;</td>
</tr>
<tr>
<td>104&quot; to 156&quot;</td>
<td>5</td>
<td>&quot;A&quot;/6 (14&quot; Min. Light &amp; Medium duty) (18&quot; Min. Heavy duty)</td>
<td>2 x &quot;B&quot;</td>
</tr>
<tr>
<td>156&quot; to 208&quot;</td>
<td>6</td>
<td>&quot;A&quot;/8 (14&quot; Min. Light &amp; Medium duty) (18&quot; Min. Heavy duty)</td>
<td>2 x &quot;B&quot;</td>
</tr>
</tbody>
</table>

#### WALL OF BUILDING

Varies

![Diagram of Wall of Building](example.png)

**EXAMPLE:**

MSA is 84" wide. "A" = 84"

To find "B", use second row of Table (52" to 104") Four posts are required. 84" divided by 4 posts = 21". "B" = 21" 

"C" = 2 x "B". "C" = 42.

**Result:** Set three posts, 21" offset, on 42" centers.

### 4.4.3. PREFERRED METER LOCATION

SoCalGas prefers meter installations to be:

- Outside, aboveground, and as close to the front of the structure as practical (typically within five feet of the structure’s front wall but not closer than one foot from the front edge), provided there is little likelihood of damage by vehicles.
- In a ventilated recess or enclosure provided by the developer and approved by SoCalGas. The enclosure must have a vapor proof seal. See Section 4.10 for more information.

### 4.4.4. DISCOURAGED METER LOCATIONS - SOCALGAS APPROVAL REQUIRED

SoCalGas discourages the following meter locations but may accept them when no other acceptable location for access and safety is reasonably available:

- Curb meter vaults
- Avoid locations inside carports or garage areas in or under buildings, except where there is no other satisfactory location, and then only if the customer provides a guard rail or other adequate protection from damage for the meters and service riser.
- On the wall of a building where meter dials are more than six feet above the ground level or above the ground floor of a building.
- Outside of a structure on a side where less than three feet exists between the foundation of the building and the lot or property line, except for an approved, ventilated, recessed opening in the wall of a building.
- In any location where it would be unsafe or subject to damage unless adequate protection is provided by a guard rail or fence. This protection must be provided by the builder/applicant or developer.
- Meters in vaults, operating at higher than standard delivery pressure.
- Under exterior stairways.
- New MSA installations within six feet of masonry-type chimney
- Natural gas meter rooms (see Section 4.11)
4.4.5. PROHIBITED METER LOCATIONS
SoCalGas prohibits the following meter locations:

- Boiler room, heater room, engine room, electric meter room, elevator shaft or any room housing elevator machinery or equipment.
- In the same room or enclosure with any source of ignition or heat which may damage the meter unless meter is in a ventilated location and more than three horizontal feet away from the source of ignition or heat. See Section 4.11 for meter room requirements.
- In living quarters or a closet, under interior stairways, bathroom, shower room, or toilet room in any building. See Section 4.11 for meter room requirements.
- Any location where corrosive substances may contact any natural gas facilities (meter, riser, piping, regulation, etc.) or impede meter operation.
- Within eight horizontal feet of the inlet of any forced-air furnace, ventilating fan or central air conditioner.
- Under outside fire escapes.
- In any unvented location, or any location inside or out, closer than three feet from a source of ignition.
- Locations under electric meters.

4.5 SINGLE-FAMILY RESIDENTIAL METER CONFIGURATIONS
For single-family residential meters serving total connected loads below 500 CFH (500,000 BTUs/HR), please refer to the SoCalGas single-family residential natural gas meter set separation and clearance guidance diagrams for a graphical representation of meter separation requirements (see Figures 16 and 17).

For total connected loads greater than 500 CFH (500,000 BTUs/HR), the meter set assembly may require additional space depending upon configuration. Your SoCalGas planner will advise of additional spacing requirements.

**FIGURE 16 - New Single Residential Natural Gas Meter Set Separation and Clearance Guidance Diagram**

**Note(s):**
1. Size and dimensions vary. Drawings are not to scale.
2. Natural gas piping (riser, houseline fitting) cannot be placed within a 36 inch horizontal and 10 foot vertical measurement from finished grade of:
   - An electrical meter or other electrical equipment
   - Fresh air venting for structure
   - Any source of ignition
3. Meters and piping must be protected from vehicular damage, corrosive environments, and other safety related issues.
4. Meters cannot be placed under a carport roof, awning, enclosure, or any overhang larger than a standard eave, without prior approval of SoCalGas.
5. Meters are not to be installed behind solid walls, fences, or gates without SoCalGas access.
6. Required for Single Residential Meters:
   - Houseline is located 11” to 19” from natural gas riser – varies based upon load
   - SCG will normally install a riser 11” to 13” out from building
7. Only fixed non-opening windows can be installed within a 36” wide area from the riser centerline and 10 feet high from finished grade.
8. All Sources of Ignition shall be located outside of the No Ignition Source Zone.
4.6 RESIDENTIAL MULTIPLE METER MANIFOLDS

Residential multi-family meter manifolds are used to serve premises that have multiple dwelling units within a structure and are located at a single location per structure preferably along a protected, exterior wall of the serving structure.

Multi-meter manifolds are available for dwelling unit and up to three tiers (not to exceed 60 1/4") in left-hand, right-hand or both right-and-left-hand configurations. Special handling may be required for larger diversified loads.

Typically, only standard delivery pressure is available for residential manifolds. However, to receive elevated pressure, the project must comply with the SoCalGas multi-family residential elevated pressure (2 psig program) requirements located in section 4.3.4 or the following link: [Residential New Construction 2 PSIG Program](#).

Houseline spacing requirements typically range from 15” to 22” from riser to the first meter; 15” for all subsequent house lines. Builders are responsible for houseline identification. Your SoCalGas planner will confirm specific houseline spacing based upon manifold design.

A clear and level work space is required for the entire width of the manifold (up to 50’) - a minimum of 48” from the wall face and at least 78” height clearance for two tiers and at least 84” height clearance for three tiers. Protection from vehicle and other hazards are required when applicable.

Figure 18 provides general guidance for multi-meter dimension requirements. It is a graphical representation and does not illustrate all parameters involved. Your SoCalGas planner will provide site specific requirements to configure the meter manifold to best serve your project.
4.7 NON-RESIDENTIAL SINGLE METER CONFIGURATIONS

Generally, non-residential single meter configurations fall under the same general guidelines as residential meters except that the distances from riser to houseline can vary from 18” for a standard delivery pressure under 270 CFH load, up to 136” or more for a large industrial meter with elevated pressure. Additional equipment such as filters, separators, equipment protection (monitor) regulation, by-pass piping, valves or other components may be required to effectively serve the customer’s needs. Although a 10’x3’x7’ (WxDxH) area should serve most non-residential MSA applications, your SoCalGas planner will determine the most appropriate meter location and meter set assembly to serve your project. Elevated pressure (typically 5 psig) is available, upon written request, for qualifying non-residential applications. See section 4.3 for additional guidance.

4.8 NON-RESIDENTIAL MULTIPLE METER MANIFOLDS

Commercial meter manifolds are handled on a case-specific basis. Contact your SoCalGas planner for further guidance about spacing and condition requirements.

4.9 MARKING HOUSE LINES FOR MULTIPLE METER LOCATIONS

Builders are responsible for identifying/marking outlet house lines for SoCalGas connection. Markings must:

- Be permanent, prominent and legible at the service connection point.
- Identify the specific dwelling unit’s street address, equipment location, or building, etc. to be served.
- SoCalGas will not install meters until house lines are accurately identified.

4.10 METER CABINETS, RECESSES, AND ENCLOSURES

Meter cabinets, recesses, and enclosures must comply with the general meter location requirements outlined in Section 4.4. Additionally, they must comply with the following guidelines:

- Be gas-tight at all interior seams and corners, including the seal around the houseline entrance into the recess/enclosure.
- All seals must be permanent to prevent natural gas from entering into the building or walls; materials such as silicone-based compounds can be used to make permanent seals.
- Meter recess interiors can be the same material as the structure’s exterior provided it is gas-tight; if additional sealing is required, it must be completed before MSA installation.
- Meter cabinets can be surface-mounted or partially recessed.
- Meter cabinets must be pre-approved by SoCalGas to be used.
- Only natural gas-related facilities are allowed within a natural gas meter recess/enclosure; foreign equipment (such as electrical conduits, water lines, telephone or TV cable, etc.) is prohibited; natural gas meter recesses/enclosures are not to be used as storage areas.
- Electric metering and any other potential sources of ignition must be a minimum of three feet from the MSA; no potential sources of ignition are permitted above a natural gas meter recess, cabinet or enclosure at any time.
- No doors, lattice work or covers of any type are permitted on the meter recess; the entire opening of the recess must be clear for installation and maintenance of the MSA.
- A minimum three-foot clear and level working space must be maintained in front of the cabinet, enclosure or recess opening to a height of 78” above final grade.
- The wall area above the cabinet, enclosure or recess must be free of projections that might present a hazard to personnel servicing the MSA.
- The bottom floor of the recess or enclosure may be earth or paved and must be graded to prevent water from collecting inside the recess; if recess floor is paved, an opening four inches in diameter or four- inch square sleeve must be provided around the riser; the required riser location is inside the recess and outside of the cabinet/enclosure.
- The recess walls and ceiling where they meet the exterior wall must be uncased and without open joints or other interruptions to the exterior wall finish.
- The ceiling must have a slope from back to front, as shown in the Figures on the following pages, to facilitate escape of natural gas to the outside.
- Meter-stacking is limited to two-tier for enclosure and recess designs.
  - Minimum dimensions for single MSAs are shown in Table 2.
  - Minimum dimension requirements for multiple MSAs can be obtained through your SoCalGas representative.
### TABLE 2 - Meter Recess & Enclosure Dimensions and Riser and Houseline Spacing

#### Standard Delivery Pressure

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>Riser to Back Wall</th>
<th>Riser to Houseline (Horiz.)</th>
<th>Min. Height</th>
<th>Min. Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recess</td>
<td>Encl</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>A A</td>
<td>250</td>
<td>12</td>
<td>30</td>
<td>16</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>425</td>
<td>12</td>
<td>30</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>630</td>
<td>12</td>
<td>30</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>8C 15</td>
<td>12</td>
<td>42</td>
<td>26</td>
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<td>15C175</td>
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<td>42</td>
<td>32</td>
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<tr>
<td></td>
<td>3M175</td>
<td>12</td>
<td>42</td>
<td>46</td>
<td>60</td>
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<tr>
<td></td>
<td>5M175</td>
<td>18</td>
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<tr>
<td></td>
<td>7M175</td>
<td>18</td>
<td>54</td>
<td>53</td>
<td>60</td>
</tr>
</tbody>
</table>

#### Above Standard Delivery Pressure

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>Riser to Back Wall</th>
<th>Riser to Houseline (Horiz.)</th>
<th>Min. Height</th>
<th>Min. Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recess</td>
<td>Encl</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>425</td>
<td>12</td>
<td>42</td>
<td>28</td>
<td>60</td>
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<tr>
<td></td>
<td>630</td>
<td>12</td>
<td>42</td>
<td>28</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>8C15</td>
<td>12</td>
<td>42</td>
<td>34</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>15C175</td>
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<td>42</td>
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<tr>
<td></td>
<td>3M175</td>
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<td>42</td>
<td>90</td>
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<td>5M175</td>
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</tr>
<tr>
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<td>83</td>
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</tr>
<tr>
<td></td>
<td>11M175</td>
<td>18</td>
<td>48</td>
<td>103</td>
<td>60</td>
</tr>
</tbody>
</table>

#### FIGURE 19 - Natural Gas Meter Cabinet Guidelines

*The optional 14” minimum dimension for the back of the cabinet allows installation between wall studs to minimize protrusion from the finished wall.*
1. Enclosure doors may be full opening doors or they must meet the minimum size requirements established by SoCalGas. In all cases the maximum door is 48”. Multiple doors are required for enclosures with door requirements exceeding 48” in width.
2. Provide 1 pair butt hinges per door.
3. Access door with padlock latch.
4. Louvre vent top and bottom each door and enclosure for required ventilation area shown in table 2.
5. Provide sealed joints throughout interior of enclosure.
6. Sleeve size and location per SoCalGas instruction.
FIGURE 22 - Natural Gas Meter Enclosure - Multiple Meter Surface Mount

1. Enclosure doors may be full opening door or they must meet the minimum size requirements established by SoCalGas. In all cases the maximum door is 48”. Multiple doors are required for enclosures with door requirements exceeding 48” in width.
2. Provide 1 pair butt hinges per door.
3. Access door with padlock latch.
4. Louvre vent top and bottom each door and enclosure for required ventilation area established by SoCalGas.
5. Provide sealed joints throughout interior of enclosure.
6. Sleeve size and location per SoCalGas instruction.

4.11 METER ROOM REQUIREMENTS

Meter rooms are defined as any closed space intended to contain natural gas meters. Builder/applicants must notify SoCalGas of their intent to create a natural gas meter room during their project’s architectural design phase. Builders must submit both a hard and electronic copies of the Engineering Design Package that substantiate conformance to all requirements outlined below.

Additionally, this Package should include annotations and information that clearly identify compliance with all of the requirements listed in this section (and an index indicating where within the package each requirement is met). The Package must be approved (stamped and signed) by a current and active Professional Engineer licensed in the state of California and must also be approved by SoCalGas. If a natural gas meter room is not constructed in accordance with drawings in the approved Engineering Design package, then SoCalGas reserves the right to postpone or suspend natural gas service until all requirements have been met. All meter rooms must comply with local codes and ordinances AND the following SoCalGas requirements:

LOCATION

- Meter rooms with an above-grade location and at least one wall with an access door to the outside are strongly preferred.
- Meter rooms in basements, lower or elevated floor levels without direct outside access, are only considered when no other acceptable location is available, and if approved, may incur a Special Facility Ownership Charge (above obligated service). See Rule 2 Section O for Special Facility details.
ELECTRICAL

• All electrical equipment, lighting fixtures and switches shall meet NFPA Volume 70 requirements for Class I Division 1 Group D Locations.

• The natural gas meter room shall be provided with lighting that as a minimum meets the illumination requirements of the current edition of the California Building Code, and lighting shall be on an emergency back-up or an uninterruptable power supply (UPS).

• The natural gas meter room light switch shall be located outside of the room adjacent to the entry door with switch function identification.

• No electrical receptacles are permitted inside a natural gas meter room.

• Any electrical power requirements for SoCalGas measurement and/or communications equipment will be specified on a project specific basis by SoCalGas representatives as determined by the Measurement Regulation and Control Group in Gas Engineering.

VENTILATION

• A mechanical ventilation system meeting the requirements of SoCalGas, California Building Code, California Mechanical Code, and all applicable local codes and ordinances shall be provided with a minimum capacity of at least six air exchanges per hour.

• The quantity and location of both the air inlet vents and the air exhaust fans shall be configured and located such that a complete or full exchange of air occurs within the room with each exchange.

• Knowledge of proper operation of the mechanical ventilation system shall occur at all times. This can be accomplished with:
  o Installation of a real-time continuous monitoring system with output to an on-site manned building control room (or to an off-site manned monitoring control center).
  o Installation of a back-up redundant exhaust fan system that activates upon failure of the primary fan system and sends an output alarm to a manned building control room (or to an off-site manned monitoring control center).
  o Installation of a locking cover over the isolation switch on the meter room air handlers when building code is requiring the developer to install the switch on the air handler itself or outside the meter room.

• The customers/builders must submit calculations and documentation that are approved (stamped and signed) by a California licensed professional engineer demonstrating that the ventilation system for the natural gas meter room satisfies all requirements within this document as well as all applicable codes, standards and ordinances.

SECURITY/ACCESS

• Entry doors shall either be locked and provided with a lockbox located near the door containing the door key or they shall be secured with a double lock arrangement that allows access to the room by SoCalGas personnel as well as the appropriate on-site representative.

• In accordance with SoCalGas Rule 25 (company’s right of ingress to and egress from customer’s premises) the property owner shall provide SoCalGas personnel with access to the natural gas meter room at all times including emergency response, meter reading, system testing, inspection and maintenance.

SIGNAGE

• The access door(s) shall be identified with signs stating: “Gas Meter Room”; “Contains Flammable Gas” and “No Smoking Permitted”.

• Additional “No Smoking” signs shall be posted on at least two interior walls of the natural gas meter room.

CONSTRUCTION

• An outside shut-off valve shall be installed in the service line in a location accessible at all times for emergency shut down.

• Only natural gas-related facilities are allowed in the natural gas meter room. Other facilities, equipment or materials are prohibited (the only permitted exception may be a Fire Sprinkler System pursuant to NFPA-13). The room shall not be used for storage purposes at any time.

• All interior surfaces, joints and openings (penetrations) shall be sealed gas-tight to prevent natural gas from leaking into the building using a non-hardening silicone based compound. Doors that do not open to the outside shall seal gas-tight when closed.

• Floor drains are not permitted in a natural gas meter room.

• The natural gas meter room shall fully comply with the Use and Occupancy requirements for High-Hazard Group H-2 of the current applicable version of the California Building Code. All interior walls, ceilings, floors and doors shall be fire-rated for a minimum of
2 hours or as specified in the California Building Code for High-Hazard Group H-2 occupancies.

- Natural gas meter room minimum dimensions will be specified by your SoCalGas representative to allow sufficient working space for construction and maintenance. The room height shall be a minimum of 7.5 feet and a maximum of 10 feet.

- Where three-tiered meter manifolds are installed, the appropriate on-site representative will provide work platforms specified by SoCalGas representatives.

- Any facilities/conduits/openings (penetrations) required for natural gas measurement and/or communications equipment will be specified on a project-specific basis by SoCalGas representatives as determined by the Measurement Regulation and Control Group of Gas Engineering.

**EQUIPMENT VENT PIPE**

- The builder/applicant shall provide the number and size holes (penetrations) specified by your SoCalGas representative through the exterior wall to the outside to facilitate vent piping for natural gas regulating and control equipment and for purging during maintenance operations.

- For natural gas meter rooms without a wall with exterior access, the customer/builder shall install a separate steel vent pipe for each pressure regulating and control device. Additionally, the customer/builder shall install one steel vent pipe for purging natural gas during maintenance operations. Each steel vent pipe shall be at a location specified by SoCalGas and shall adhere to the following requirements (approved by the SoCalGas representative):
  - All vent piping shall be steel material and consist of standard welded or threaded pipe, pipe nipples and fittings that are approved for use by SoCalGas (CSST tubing is prohibited for use in vent piping).
  - Each vent pipe shall be the same size or larger as the size of each regulator vent.
  - Never downsize or decrease the size of vent piping.
  - To as great an extent as possible, minimize the length of all vent piping. The size of vent pipe shall be increased by one nominal pipe diameter for every 25 feet of vent pipe.
  - Always provide one vent pipe per regulator vent.
  - Never combine vent pipes into one pipe.
  - Each vent pipe shall be marked to identify the regulator or device to which it is connected.
  - All vent pipes shall be installed so as to avoid liquid traps and shall be routed to the outside of the building to a “safe” location. They shall be terminated with a fitting designed to prevent the entry of insects, foreign material or moisture.

- A “safe” location for the terminus of vent piping shall avoid tripping or public hazards and be a minimum of 8 feet from any air intake, fresh air vent or building opening and a minimum of 3 feet from electric meters or any potential source of ignition.

**AUTOMATED METER DATA COLLECTOR UNIT (DCU) UTILITY CLOSET**

- A separate DCU utility closet shall be constructed directly adjacent (with a common or shared wall) to the natural gas meter room.

- The DCU utility closet shall be constructed to the following requirements:
  - This closet shall be the same height as the natural gas meter room with a minimum width of six feet and a minimum depth of six feet.
  - All interior walls, ceilings, floors and doors shall be fire-rated for a minimum of two hours or as specified in the California Building Code for Group H Division 1 occupancies.
  - The DCU utility closet shall be provided with lighting that as a minimum meets the illumination requirements of the current edition of the California Building Code.
  - The DCU Utility Closet shall be supplied by a dedicated 15 Amp, 120V single phase circuit (two #10 AWG conductors). The dedicated circuit shall terminate to a fused disconnect switch inside the DCU Utility Closet. The fused disconnect switch shall be lockable with a 3 amp fuse installed. The dedicated circuit shall be tied to the ground system of the building.
  - The DCU utility closet shall include a quad outlet supplied by a dedicated circuit from the Building distribution panel.
  - One 1 1/2 inch conduit from the DCU utility closet to the outside of the building shall be provided which meets the following:
    - This conduit shall run the most direct path to the outside with a maximum distance of 100 feet.
    - Depending on site conditions, antenna(s) and/or related communication devices may be mounted to the building wall or to a roof parapet wall at a minimum height of 15 feet but no more than 30 feet above ground level. For this equipment the location where the conduit terminate to the outside of the building will be free from obstructions including the building itself.
• One 1 1/2 inch conduit from the DCU utility closet to the natural gas meter room shall be provided (this conduit shall be sealed after installation of SoCalGas’ conductors).

• One 1 1/2 inch conduit from the DCU utility closet to the building telecommunications room shall be provided.

• The access door to the DCU utility closet shall be identified with a sign identifying: “SoCalGas Communication Closet”.

• The access door shall also include appropriate radio frequency (RF) signage that conforms to IEEE ANSI Standard C95.2 and FCC OET 65, this sign will be provided by SoCalGas (see Figure 23 below):

**FIGURE 23 - Conforming RF Signage Sample**

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### SECTION 5

**APPLICANT-OWNED PIPING (HOUSE LINE)**

• All **builder/applicant-installed** piping shall be steel and constructed in accordance with NFPA 54 and all local codes and ordinances.

• House Line piping must be adequately supported to minimize structural load on the MSA.

• It shall not interfere in any way with the installation, operation and maintenance of SoCalGas® equipment.

• When flexible corrugated stainless steel tubing (CSST) is used, it shall be connected to the MSA outlet with standard threaded pipe fittings and steel pipe or pipe nipples properly supported and approved by SoCalGas.

### 5.1 SERVICE DELIVERY POINT

The natural gas service delivery point is where SoCalGas’ facilities connect to the Applicant-owned natural gas piping or house line.

This is applicable for most residential and small commercial meter set assemblies.

For larger commercial and industrial installations, the service delivery point is located downstream of or after all SoCalGas natural gas facilities and where customer piping commences. Typically, it’s where the Applicant’s piping is connected to SoCalGas’ piping downstream of the by-pass valve assembly. Please see Figure 24.

**FIGURE 24 - Natural Gas Meter Service Delivery Point**

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### IMPORTANT NOTE

• Use of the bypass tee outlet plug port is strictly prohibited. The plug port is used by SoCalGas to perform MSA service and maintenance.

• Builder/applicants are prohibited from connecting to or installing fittings on the SoCalGas-owned MSA (upstream of or before the service delivery point).

• If necessary, Builder/applicants must install bracing for house line support.

• A flexible house line connection to the service delivery point is strictly prohibited (except for Mobile Home applications).
SECTION 6
ADVANCED METER LOCATION REQUIREMENTS

As part of the SoCalGas® Advanced Meter program, all newly-installed SoCalGas meters will have the ability to be read and monitored remotely. To do so may require SoCalGas to install a remote module to ensure proper radio frequency transmissions. This necessary equipment may be installed on nearby natural gas facilities, interior walls or an outside location.

SECTION 7
LOCATION OF APPLICANT-OWNED VALVES, STEP-DOWN REGULATORS, AND AUTOMATIC SHUT-OFF DEVICES

Builder/applicants are responsible for maintaining customer-installed-and-owned natural gas piping (yard or house lines), valves, regulators, shut-off devices, or any other piping component on the premise affixed to the natural gas system.

Builder/applicant-installed-and-owned equipment must not interfere or obstruct the operation or maintenance of SoCalGas' piping, regulation, or meter equipment. If Builder equipment is found to obstruct SoCalGas® natural gas facilities, natural gas service may be discontinued until equipment no longer impedes SoCalGas equipment operation.

For new construction,
- For 2 PSI Residential, builder/applicant shall install step-down regulator(s) in a safe and readily accessible location that has adequate room to work (two feet clearance front and sides) and must be reached safely between one and five feet above ground level (view Residential New Construction 2 PSIG Program). Regulators are not allowed above parking spaces, above lanes of traffic (underground parking structures) or in attics.
- For Non-Residential 2 PSI, 5 PSI and above systems, the regulators must be reached safely no more than approximately 48 inches off the working surface (view Figure 25). Attic installations are unacceptable.
- Due to safety concerns, SoCalGas employees cannot perform initial meter and natural gas turn-on if there is natural gas-controlling equipment that requires use of engineered lifts or ladders to access.

SECTION 8
GROUNDING NATURAL GAS PIPE

Builder/applicants must ensure that house line natural gas pipe is electrically bonded and grounded. They must comply with local codes and ordinances, regulations, and standards on electric bonding and grounding.

Builder/applicants must not allow natural gas pipe to be used as described below.
- Do not allow house line natural gas pipe to be electrically bonded to SoCalGas natural gas service piping, natural gas risers, or meter facilities. Also, do not allow natural gas pipe to be electrically bonded to the inside of meter enclosures, cabinets, or meter rooms.
- Do not use SoCalGas' natural gas service piping, risers or meter facilities for electric grounding or in a manner that allows the natural gas piping or other natural gas facilities to become current-carrying conductors.
SECTION 9
NATURAL GAS FLOW
PROTECTIVE EQUIPMENT

SoCalGas’ natural gas metering equipment can be adversely affected when a customer’s equipment causes:

- Pulsations in the natural gas flow
- Sudden changes in flow rate
- A backflow condition

Builder/applicants must install, at their expense, any equipment necessary to mitigate or eliminate these detrimental effects. SoCalGas will review and approve installations before re-initiating natural gas service. Builder/applicants must add any necessary protective equipment when their operations change and those changes could result in adverse metering conditions.

SoCalGas may terminate service and refuse to restore that service if the identified issues are not resolved promptly or the builder/applicant disregards SoCalGas notifications and continues to operate without proper protective equipment.

Builder/applicants are responsible for damages made to SoCalGas equipment due to failure to install proper protective equipment.