This Rule describes the general terms and conditions that apply whenever PG&E transports Customer-owned gas over its system. Customers who wish to transport gas must sign the applicable Agreement.

A. GENERAL

1. NATURE OF SERVICE

Customers or their designated Agent or Core Transport Agent hereinafter referred to as “Customer” and meaning Customer and/or their Agent will deliver or have delivered to PG&E quantities of gas, and PG&E will deliver equivalent quantities of gas adjusted for In-Kind Shrinkage Allowance, on a Btu-for-Btu basis, to the Customer’s Delivery Point. Customers must endeavor to ensure that daily gas deliveries match daily gas usage. The gas that PG&E delivers to the Customer’s Delivery Point will not necessarily be the gas that the Customer delivered to PG&E.

2. GAS SPECIFICATIONS

Unless otherwise agreed to by both parties, the gas delivered to PG&E must meet the quality specifications detailed in Section C, below. The minimum and maximum heating value and the pressure of the gas must be such that the gas can be integrated into PG&E’s system at the Receipt Point(s).

B. QUANTITIES OF GAS

1. IN-KIND SHRINKAGE ALLOWANCE

The in-kind shrinkage quantities represent the unaccounted-for gas and the utility fuel use attributable to the volume of natural gas received by PG&E for backbone transmission, distribution, and storage service. PG&E may adjust distribution, transmission and storage shrinkage annually, or as necessary. (See Preliminary Statement Part C.12.c. for further details)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont'd.)

1. IN-KIND SHRINKAGE ALLOWANCE (Cont'd.)

a. Backbone Transmission Shrinkage

A Customer transporting gas over PG&E’s Backbone Transmission System shall deliver each day at the Receipt Point to PG&E an additional in-kind quantity of natural gas supply equal to a percent of total volume of natural gas to be delivered at the Receipt Point. Thus, the quantity to be nominated at the Receipt Point equals the quantity desired at the Delivery Point divided by \((1 - x)\) where \(x\) is the decimal equivalent of the Backbone Transmission System In-Kind Shrinkage Allowance percentage, based on the transmission path utilized as follows:

<table>
<thead>
<tr>
<th>Path</th>
<th>Percentage of In-Kind Shrinkage</th>
<th>Percentage of In-Kind Shrinkage Adjustment</th>
<th>Percentage of Effective In-Kind Shrinkage Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redwood to Off-System</td>
<td>0.9 (I)</td>
<td>–</td>
<td>0.9 (I)</td>
</tr>
<tr>
<td>Mission to On-System</td>
<td>0</td>
<td>–</td>
<td>0</td>
</tr>
<tr>
<td>Mission to Off-System</td>
<td>0</td>
<td>–</td>
<td>0</td>
</tr>
<tr>
<td>All other transmission</td>
<td>1.2 (I)</td>
<td>–</td>
<td>1.2 (I)</td>
</tr>
</tbody>
</table>

Provided, however, that PG&E and the Customer shall not be prohibited under this Rule, where shrinkage requirements support a different shrinkage allowance, from mutually agreeing to a different shrinkage allowance for transportation over PG&E’s Backbone Transmission System.
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont'd.)

1. IN-KIND SHRINKAGE ALLOWANCE (Cont'd.)

   b. Distribution Shrinkage

For transportation on PG&E’s Distribution System, an additional In-Kind Shrinkage Allowance shall apply, which is separate from backbone transmission and storage shrinkage. The Customer shall deliver each day to PG&E at the Citygate an additional in-kind quantity of natural gas supply equal to a percent of the total volume of natural gas flowing through the End-Use Customer’s meter. Thus, the quantity to be nominated at the Citygate equals the quantity to be flowed through the meter multiplied by \((1 + y)\) where \(y\) is the decimal equivalent of the Distribution System In-Kind Shrinkage Allowance percentage, as follows:

<table>
<thead>
<tr>
<th>End-Use Customer</th>
<th>Percentage of In-Kind Shrinkage Base Allowance</th>
<th>Percentage of In-Kind Shrinkage Adjustment</th>
<th>Percentage of Effective In-Kind Shrinkage Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core – Summer Season (April - October)</td>
<td>1.8 (R)</td>
<td>0.1 (I)</td>
<td>1.9 (I)</td>
</tr>
<tr>
<td>Core – Winter Season (November – March)</td>
<td>3.6</td>
<td>0.1 (I)</td>
<td>3.7 (I)</td>
</tr>
<tr>
<td>Noncore Distribution</td>
<td>0.2</td>
<td>–</td>
<td>0.2</td>
</tr>
<tr>
<td>Noncore Transmission*</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

As an example, for a Core End-Use Customer being served via the Redwood Path, the amount to be nominated at Malin is calculated as:

\[
\text{Receipt Point Quantity} = \frac{\text{Est. Metered Usage} \times (1 + y)}{(1 - x)}
\]

Where:
- \(x\) = decimal equivalent of the Backbone Shrinkage percentage, and
- \(y\) = decimal equivalent of the Distribution Shrinkage percentage

* Noncore Transmission Level End-Use Customers or Agents require no Distribution System In-Kind Shrinkage Allowance.
B. QUANTITIES OF GAS (Cont’d.)

1. IN-KIND SHRINKAGE ALLOWANCE (Cont’d.)

c. Storage Shrinkage

An In-Kind Shrinkage Allowance is applicable to all injection storage quantities under rate Schedules G-CFS, G-SFS, G-NFS, and G-NAS, in addition to any applicable transmission and distribution shrinkage. Customers shall deliver to PG&E’s storage system an additional in-kind quantity of natural gas equal to the Shrinkage Allowance percentage of the total volume of their storage injection volume. The quantity injected into PG&E’s storage will equal the quantity nominated for storage injection multiplied by \((1 - z)\), where \(z\) is the decimal equivalent of the Storage In-Kind Shrinkage Allowance percentage, as follows.

\[
\text{Storage Injection} = \text{Injection Quantity} \times (1 - z)
\]

Where: \(z\) = decimal equivalent of the Storage In-Kind Shrinkage Allowance

Storage In-Kind Shrinkage Allowance: 0.9 Percent

Provided, however, that PG&E and the Customer shall not be prohibited under this Rule, where shrinkage requirements support a different shrinkage allowance, from mutually agreeing to a different shrinkage allowance for the injection into PG&E’s storage system.
B. QUANTITIES OF GAS (Cont’d.)

2. TRANSPORTATION QUANTITIES

PG&E shall not be required to accept gas at any Receipt Point when the daily flow rate at that Receipt Point is less than 50 Decatherms per day.

PG&E shall not be obligated to agree to a Maximum Daily Quantity (MDQ), as specified in an applicable Agreement, for any Customer or its affiliates, in the aggregate, that exceeds the amount of available capacity to provide service to the Customer or affiliates, as determined by PG&E.

3. NOMINATIONS

a. General

The Customer shall be responsible for submitting gas service nominations to PG&E no later than the deadlines specified below. Nominations shall be made by electronic means acceptable to PG&E or by other means mutually agreeable to PG&E and the Customer. The Customer shall sign an Electronic Commerce System (ECS) User Agreement (Form 79-982) prior to using PG&E’s Electronic Commerce System. Currently, there is no charge for using the ECS; however, PG&E reserves the right to initiate or modify fees for the use of the ECS, subject to Commission approval. PG&E may reject any nomination not conforming to the requirements in these rules or in applicable service agreements.

Each nomination shall include all information required by PG&E’s normal nomination procedures. Nominations received by PG&E will be subject to the conditions specified in the Customer’s service agreements with PG&E. Confirmation of nominations will be subject to operational constraints in accordance with Rule 14. Nominations for Firm Service (Firm Nominations) may be given scheduling priority over nominations for As-Available Service (As-Available Nominations) confirmed and scheduled in a previous nomination cycle, in accordance with Rule 14. This may result in a reduction of previously confirmed and scheduled As-Available volumes. “Bumping” is the process in the second through fourth nomination cycles (Evening through Intraday 2) where a Firm Nomination can supersede an As-Available Nomination confirmed and scheduled in a previous nomination cycle. Bumping is not part of the confirmation and scheduling process in the fifth (Intraday 3) cycle. As-Available Nominations are scheduled by price in each nomination cycle.

(Continued)
B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

   a. General (Cont’d.)

      The Customer shall be responsible for making all corresponding upstream
      and/or downstream nomination arrangements with the interconnecting
      pipeline(s) and/or operator(s).

   b. Changes in Flow-day Quantities

      PG&E will schedule nominations subject to receiving notification of
      confirmation from the upstream and/or downstream pipeline(s) and/or
      operator(s), and subject to the following two conditions.

      1) Decreases

         Decreases in intraday nominations shall be limited to no less than the
         Elapsed Prorated Quantity that theoretically would have flowed up to the
         effective time of the intra-day nomination being confirmed, based on a
         cumulative uniform hourly quantity for each nomination period affected.
         This condition applies at the individual nomination level.

      2) Increases

         Increases in intraday nominations shall be limited to no more than the
         Remaining Prorated Quantity that theoretically could flow from the
         effective time of the intra-day nomination being confirmed, for the time
         remaining in the gas day based on a cumulative uniform hourly quantity
         for each nomination period affected. This condition applies to the
         aggregate of all nominations at a receipt point.
B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

   c. Timing

   All times referred to in Section B.3 are in Pacific Clock Time. The gas day will be from 7 a.m. to 7 a.m.

   d. Nomination Cycles

   PG&E will accept and process five types of nominations for a given gas day:

   1) A “Timely Nomination” is a nomination received by PG&E no later than 11:00 a.m. one day prior to the gas day for which the Customer requests service.

   2) An “Evening Nomination” is a nomination received after 11:00 a.m. and no later than 4:00 p.m. one day prior to the gas day for which the Customer requests service.

   3) An “Intraday 1 Nomination” is a nomination received after 4:00 p.m. one day prior to the gas day for which the Customer requests service and no later than 8:00 a.m. on the gas day for which service is requested.

   4) An “Intraday 2 Nomination” is a nomination received after 8:00 a.m. and no later than 12:30 p.m. on the gas day for which service is requested by the Customer.

   5) An “Intraday 3 Nomination” is a nomination received after 12:30 p.m. and no later than 5:00 p.m. on the gas day for which service is requested by the Customer.

(Continued)
B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

e. Timely Nomination Cycle

Timely Nominations must be received by PG&E no later than 11:00 a.m. one day prior to the gas day for which the Customer requests service. Timely Nominations will be effective at 7:00 a.m. the following morning.

Nominations shall include defined begin and end dates. A Timely Nomination does not carry over to the following gas day. However, Timely Nominations may have a “roll-over” option; specifically, they may extend for multiple days, months, or years, provided the begin and end dates are within the terms of the Customer Service Agreement exhibit.

Timely Nominations will be confirmed and scheduled by priority of service in accordance with Rule 14. Confirmed and scheduled Timely As-Available Nominations may be bumped by Firm Nominations made during the Evening, Intraday 1, or Intraday 2 nomination cycles.

PG&E will provide to the Customer a confirmed nomination report indicating the nomination quantities which have been received and confirmed for transport on PG&E’s system and which have been communicated to the applicable upstream and/or downstream pipeline(s) and/or operator(s). Subject to PG&E receiving notification from the applicable upstream and/or downstream pipeline(s) and/or operator(s), PG&E will provide to the Customer a scheduled quantities report. PG&E will attempt, but cannot guarantee, delivery of these two reports by 2:30 p.m. and 3:00 p.m., respectively.

Timely Nomination summary

• Nominations submitted: No later than 11:00 a.m.

• Flow will be effective: 7:00 a.m. the following morning

(Continued)
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

f. Evening Nomination Cycle

An Evening Nomination must be received by PG&E no later than 4:00 p.m. one day prior to the gas day for which the Customer requests service. Evening Nominations will be effective at 7:00 a.m. the following morning. Evening Nominations will be confirmed and scheduled after Timely Nominations are confirmed and scheduled.

PG&E will provide to the Customer a confirmed nomination report indicating the nomination quantities which have been received and confirmed for transport on PG&E’s system and which have been communicated to the upstream and/or downstream pipeline(s) and/or operator(s). Subject to PG&E receiving notification from the applicable upstream and/or downstream pipeline(s) and/or operator(s), PG&E will provide to the Customer a scheduled quantities report. PG&E will attempt, but cannot guarantee, delivery of these two reports by 6:30 p.m. and 7:00 p.m., respectively.

Evening Nomination summary

Nominations submitted: No later than 4:00 p.m.
Flow will be effective: 7:00 a.m. the following morning

Evening Nominations will be confirmed and scheduled by priority of service among all Evening Nominations PG&E has received and in accordance with Rule 14. Evening Firm Nominations may bump confirmed and scheduled As-Available Nominations from a previous nomination cycle, which may result in a reduction of scheduled As-Available volumes.

An Evening Nomination either may be the Customer’s first nomination for service for the following day or may modify a Timely Nomination for the following day. An Evening Nomination may increase or decrease previously scheduled quantities subject to Section B.3.b. and scheduling non-performance in Section B.4. An Evening Nomination does not carry over to the following gas day.

(Continued)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

g. Intraday 1 Nomination Cycle

An Intraday 1 Nomination must be received by PG&E no later than 8:00 a.m. on the gas day for which service is requested. Intraday 1 Nominations will be effective at 12:00 p.m. the same day. Intraday 1 Nominations will be confirmed and scheduled after all Timely and Evening Nominations are confirmed and scheduled.

PG&E will provide to the Customer a confirmed nomination report indicating the nomination quantities which have been received and confirmed for transport on PG&E’s system and which have been communicated to the upstream and/or downstream pipeline(s) and/or operator(s). Subject to PG&E receiving notification from the applicable upstream and/or downstream pipeline(s) and/or operator(s), PG&E will provide to the Customer a scheduled quantities report. PG&E will attempt, but cannot guarantee, delivery of these two reports by 10:30 a.m. and 11:00 a.m., respectively.

Intraday 1 Nomination summary

- Nominations submitted: No later than 8:00 a.m.
- Flow will be effective: 12:00 p.m. the same day

Intraday 1 Nominations will be confirmed and scheduled by priority of service among all Intraday 1 Nominations PG&E has received and in accordance with Rule 14. Intraday 1 Firm Nominations may bump confirmed and scheduled As-Available Nominations from a previous nomination cycle, which may result in a reduction of scheduled As-Available volumes.

An Intraday 1 Nomination either may be the Customer’s first nomination for service for the gas day or may modify its previous nomination, Timely or Evening, if any. An Intraday 1 Nomination may also increase or decrease previously scheduled quantities subject to Section B.3.b. and scheduling non-performance in Section B.4. An Intraday 1 Nomination does not carry over to the following gas day.

(Continued)
B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

h. Intraday 2 Nomination Cycle

An Intraday 2 Nomination must be received by PG&E no later than 12:30 p.m. on the gas day for which service is requested. Intraday 2 Nominations will be effective at 4:00 p.m. the same day. Intraday 2 Nominations will be confirmed and scheduled after all Timely, Evening and Intraday 1 Nominations are confirmed and scheduled.

PG&E will provide to the Customer a confirmed nomination report indicating the nomination quantities which have been received and confirmed for transport on PG&E’s system and which have been communicated to the upstream and/or downstream pipeline(s) and/or operator(s). Subject to PG&E receiving notification from the applicable upstream and/or downstream pipeline(s) and/or operator(s), PG&E will provide to the Customer a scheduled quantities report. PG&E will attempt, but cannot guarantee, delivery of these two reports by 3:00 p.m. and 3:30 p.m., respectively.

Intraday 2 Nomination summary

- Nominations submitted: No later than 12:30 p.m. (T)
- Flow will be effective: 4:00 p.m. the same day (T)

Intraday 2 Nominations will be confirmed and scheduled by priority of service among all Intraday 2 Nominations PG&E has received and in accordance with Rule 14. Intraday 2 Firm Nominations may bump confirmed and scheduled As-Available Nominations from a previous nomination cycle, which may result in a reduction of scheduled As-Available volumes. (T)

An Intraday 2 Nomination either may be the Customer’s first nomination for service for the gas day or may modify its previous nomination, Timely, Evening or Intraday 1, if any. An Intraday 2 Nomination may increase or decrease previously scheduled quantities subject to Section B.3.b. and scheduling non-performance in Section B.4. An Intraday 2 Nomination does not carry over to the following gas day.

(Continued)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)
   i. Intraday 3 Nomination Cycle

   An Intraday 3 Nomination must be received by PG&E no later than 5:00 p.m. on the gas day for which service is requested. Intraday 3 Nominations will be effective at 8:00 p.m. the same day. Intraday 3 Nominations will be confirmed and scheduled after all Timely, Evening, Intraday 1 and Intraday 2 Nominations are confirmed and scheduled.

   PG&E will provide to the Customer a confirmed nomination report indicating the nomination quantities which have been received and confirmed for transport on PG&E’s system and which have been communicated to the upstream and/or downstream pipeline(s) and/or operator(s). Subject to PG&E receiving notification from the applicable upstream and/or downstream pipeline(s) and/or operator(s), PG&E will provide to the Customer a scheduled quantities report. PG&E will attempt, but cannot guarantee, delivery of these two reports by 7:30 p.m. and 8:00 p.m., respectively.

   (Continued)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

B. QUANTITIES OF GAS (Cont’d.)

3. NOMINATIONS (Cont’d.)

   i. Intraday 3 Nomination Cycle (Cont’d.)

   Intraday 3 Nomination summary

   • Nominations submitted: No later than 5:00 p.m.
   • Flow will be effective: 8:00 p.m. the same day

   Intraday 3 Nominations will be confirmed and scheduled by priority of service among all Intraday 3 Nominations PG&E has received and in accordance with Rule 14. Intraday 3 Firm Nominations will not bump confirmed and scheduled As Available Nominations from a previous nomination cycle.

   An Intraday 3 Nomination either may be the Customer’s first nomination for service for the gas day or may modify its previous nomination, Timely, Evening, Intraday 1 or Intraday 2, if any. An Intraday 3 Nomination may increase or decrease previously scheduled quantities subject to Section B.3.b. and scheduling non-performance in Section B.4. An Intraday 3 Nomination does not carry over to the following gas day.
B. QUANTITIES OF GAS (Cont’d.)

4. SCHEDULING NON-PERFORMANCE

An excess of confirmed nominations relative to scheduled nominations for a given gas day for a given Customer and a particular As-Available transportation exhibit to the Gas Transmission Service Agreement (GTSA) shall be deemed to be scheduling non-performance. This section sets forth how PG&E will manage excess As-Available volumes and reduce a Customer’s ability to engage in scheduling non-performance.

a. PG&E may limit the Maximum Daily Quantity (MDQ) of an As-Available contract to the expected usage of that contract by an entity. Expected usage is the Customer’s highest actual usage in the past twelve (12) months.

b. PG&E may reduce an As-Available contract’s MDQ on a daily basis to the previous day’s actual usage if scheduling non-performance occurs.

c. If an entity’s load increases, the entity may contact PG&E to increase the MDQ.
B. QUANTITIES OF GAS (Cont’d.)

5. IMBALANCES IN DELIVERIES

a. On any given day the Customer shall bring in a quantity of Customer-Owned Gas, adjusted for In-Kind Shrinkage Allowance, to be delivered to the Customer, approximately equal to the quantity of gas received by PG&E for transportation to the Customer that day.

Any day-to-day imbalance will be handled and resolved through Schedule G-BAL.

b. Procedures for balancing the Customer’s account when PG&E receives Customer-Owned Gas for transportation but, because of constraints or diversions, does not deliver it to the Customer, are covered in Rule 14.

c. A transmission Customer’s Imbalance, defined in Schedule G-BAL, refers to a difference between a Customer’s final scheduled quantity and the quantity of gas actually delivered at the Receipt Point on behalf of that Customer for a given gas day.

6. TRANSPORT OF CALIFORNIA PRODUCTION GAS

PG&E may receive gas from California production supply for transport by a Customer from various Receipt Points on PG&E’s system. As of April 1, 1998, nominations shall be accepted by PG&E only from California production Receipt Points which are designated in a California Production Balancing Agreement (Form No. 79-944) which has been executed between a California producer’s Authorized Agent and PG&E.
C. QUALITY OF GAS
Gas delivered to PG&E for transportation to the Delivery Point(s) shall meet the gas quality specifications stated in the service agreement between the delivering pipeline company and PG&E. If no gas-quality specifications agreement exists between the delivering pipeline company and PG&E for the Receipt Point(s), or if the natural gas is not delivered by a pipeline, the gas received by PG&E shall meet the following specifications:

1. Carbon dioxide: The gas shall contain no more than one percent by volume of carbon dioxide.
2. Oxygen: The gas shall contain no more than 0.1 percent by volume of oxygen.
3. Hydrogen sulfide: The gas shall contain no more than 0.25 grains of hydrogen sulfide, measured as hydrogen sulfide, per one hundred standard cubic feet (4 parts per million (ppm) by volume of hydrogen sulfide).
4. Mercaptan sulfur: The gas shall contain no more than 0.5 grains of mercaptan sulfur, measured as sulfur, per one hundred standard cubic feet (8 ppm).
5. Total sulfur: The gas shall contain no more than one grain of total sulfur, measured as sulfur, per one hundred standard cubic feet (17 ppm) by volume of total sulfur.
6. Water vapor: The gas shall contain no more than seven pounds of water vapor per million standard cubic feet at 800 pounds per square inch gauge (psig) or less; dew point of 20°F Fahrenheit (F) if gas is supplied at over 800 psig.
7. Hydrocarbon dewpoint: The gas shall have a hydrocarbon dewpoint of 45°F or less for gas delivered at 800 psig or below, but measured at 400 psig; or 20°F for gas delivered at above 800 psig, also measured at 400 psig.
8. Liquids: The gas shall contain no liquids at, or immediately downstream of, the Receipt Point(s).
9. Merchantability: The gas shall not contain dust, sand, dirt, gums, oils, or other substances in an amount sufficient to be injurious to PG&E facilities or which shall cause the gas to be unmarketable.
10. Temperature: The gas shall not be delivered at less than 60 degrees Fahrenheit or more than 100 degrees Fahrenheit.
11. Gas interchangeability: The gas shall be interchangeable with the gas in the receiving pipeline. Interchangeability shall be determined in accordance with the methods and limits presented in Bulletin 36 of the American Gas Association.
C. QUALITY OF GAS (Cont’d.)

12. Heating value: The gas shall have a heating value that is consistent with the standards established by PG&E for each Receipt Point.

13. Biomethane Requirements
The following requirements are additionally applicable to Biomethane injected into PG&E’s gas pipeline system. The biomethane rules in this section 13 are intended to implement D.14-01-034, including rules regarding constituent concentration standards, monitoring and testing requirements, and reporting and record keeping requirements.

a) Definitions

1) Biomethane: See Gas Rule 1.

2) Biomethane Supplier (Supplier): A producer of Biomethane seeking to deliver gas to the PG&E gas pipeline system.

3) Constituent: A chemical or compound that may impact the merchantability of Gas, as described in this Rule.

a) Health Protective Constituents include:


ii. Non-carcinogenic (non-cancer or chronic risk): antimony, copper, hydrogen sulfide, lead, mercaptans (alkyl thiols), methacrolein, and toluene.

b) Pipeline Integrity Protective Constituents include: ammonia, biologicals, hydrogen, mercury, and siloxanes.

4) Group 1 Compounds: Any Constituent with a concentration below the test detection level or below the Trigger Level.

5) Group 2 Compounds: Any Constituent with a concentration at or above the Trigger Level.

6) Hazardous Waste Landfill: All contiguous land and structures, and other appurtenances and improvements, on the land used for the treatment, transfer, storage, resource recovery, disposal, or
C. QUALITY OF GAS (Cont’d.)

    recycling of hazardous waste. The facility may consist of one or more
treatment, transfer, storage, resource recovery, disposal, or recycling
hazardous waste management units, or combinations of these units.
This includes facilities permitted by the Department of Toxic Substance
Control.

  7) Testing Action Levels

    a) Trigger Level: Constituents found at or above the Trigger Level
require additional periodic testing and analysis.

    b) Lower Action Level: The Lower Action Level is used to screen
Biomethane during Pre-Injection Testing, Periodic Testing, and in
the Biomethane Restart Procedure.

    c) Upper Action Level: The Upper Action Level establishes the point
at which an immediate shut-off of the Biomethane supply occurs.

b. Biomethane Constituents and Quality Specifications

  1) Biomethane must conform to the specifications shown in Table 1.
### C. QUALITY OF GAS, Table 1 (Cont’d.)

**Table 1**

<table>
<thead>
<tr>
<th>Biomethane Injection Constituents</th>
<th>Testing for Biogas Source</th>
<th>Landfill</th>
<th>Dairies</th>
<th>POTW 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Gas Quality Requirements 1</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

#### Health Protective Constituents – Carcinogenic 2

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Trigger Level</th>
<th>Lower Action Level</th>
<th>Upper Action Level</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>0.019 mg/m³</td>
<td>0.19 mg/m³</td>
<td>0.48 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.006 ppmv</td>
<td>0.06 ppmv</td>
<td>0.15 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>p-Dicholorobenzene</td>
<td>5.7 mg/m³</td>
<td>57 mg/m³</td>
<td>140 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.95 ppmv</td>
<td>9.5 ppmv</td>
<td>24 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>26 mg/m³</td>
<td>260 mg/m³</td>
<td>650 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>6.0 ppmv</td>
<td>60 ppmv</td>
<td>150 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>n-Nitroso-di-n-propylamine</td>
<td>0.033 mg/m³</td>
<td>0.33 mg/m³</td>
<td>0.81 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.006 ppmv</td>
<td>0.06 ppmv</td>
<td>0.15 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>0.84 mg/m³</td>
<td>8.4 mg/m³</td>
<td>21 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.33 ppmv</td>
<td>3.3 ppmv</td>
<td>8.3 ppmv</td>
<td>Dairies</td>
</tr>
</tbody>
</table>

#### Health Protective Constituents - Non-Carcinogenic 2

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Trigger Level</th>
<th>Lower Action Level</th>
<th>Upper Action Level</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>0.60 mg/m³</td>
<td>6.0 mg/m³</td>
<td>30 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.12 ppmv</td>
<td>1.2 ppmv</td>
<td>6.1 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Copper</td>
<td>0.060 mg/m³</td>
<td>0.60 mg/m³</td>
<td>3.0 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.02 ppmv</td>
<td>0.23 ppmv</td>
<td>1.2 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Hydrogen Sulfide 6</td>
<td>30 mg/m³</td>
<td>300 mg/m³</td>
<td>1500 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>22 ppmv</td>
<td>216 ppmv</td>
<td>1080 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Lead</td>
<td>0.075 mg/m³</td>
<td>0.75 mg/m³</td>
<td>3.8 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.009 ppmv</td>
<td>0.09 ppmv</td>
<td>0.44 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Mercaptans (Alkyl Thiols) 6</td>
<td>12 ppmv</td>
<td>120 ppmv</td>
<td>610 ppmv</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dairies</td>
</tr>
<tr>
<td>Methacrolein</td>
<td>1.1 mg/m³</td>
<td>11 mg/m³</td>
<td>53 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>0.37 ppmv</td>
<td>3.7 ppmv</td>
<td>18 ppmv</td>
<td>Dairies</td>
</tr>
<tr>
<td>Toluene</td>
<td>904 mg/m³</td>
<td>9000 mg/m³</td>
<td>45000 mg/m³</td>
<td>Landfill</td>
</tr>
<tr>
<td></td>
<td>240 ppmv</td>
<td>2400 ppmv</td>
<td>120000 ppmv</td>
<td>Dairies</td>
</tr>
</tbody>
</table>

(Continued)
### C. QUALITY OF GAS, Table 1 (Cont’d.)

<table>
<thead>
<tr>
<th>Pipeline Integrity Protective Constituents</th>
<th>Ammonia</th>
<th>Hydrogen</th>
<th>Mercury</th>
<th>Siloxanes$^8$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>0.001%</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>4 x $10^4$ / scf (qPCR per APB, SRB, IOB$^7$ group) and commercially free of bacteria of &gt; 0.2 microns</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td>Biologicals</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>0.10%</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.08 mg/m$^3$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Siloxanes$^8$</td>
<td>0.01 mg Si/m$^3$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>0.1 mg Si/m$^3$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
<td>TBD$^5$</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Notes:**

1. Traditional gas quality requirements are found in Gas Rule 21.C in Sections 1-12.
2. Health protective constituents are shown in Table V-3 the CARB/OEHHA Report.
3. Pipeline integrity protective constituents are shown in Section 4.4.3.3 of D.14-01-034.
4. POTW means “Publicly Owned Treatment Works” or sewage treatment plant, or wastewater plant, and includes all biogas sources other than landfill and dairy manure.
5. The lower and upper action levels will be established in the next update proceeding.
6. Testing requirement will be the lower of stated biomethane values or other tariff requirements.
7. Acid-producing Bacteria (APB), Sulfate-reducing Bacteria (SRB), and Iron-oxidizing Bacteria (IOB).
8. The Supplier that certifies (1) the only biogas fuel sources for its biomethane are: dairy or other animal manure, other agricultural waste, forest residues, and/or commercial food processing waste and (2) products that contain siloxanes are not included in the biogas and are not used at the facility in any way that allows siloxanes to enter the biomethane, shall have reduced siloxane testing requirements, as described in this Rule. If these conditions change, the Supplier must notify PG&E immediately and the full siloxane testing requirements will apply as described in this Rule. If PG&E test results show the siloxane levels exceed the Lower Action Level, the full siloxane testing requirements will apply as described in this Rule.
C. QUALITY OF GAS (Cont’d.)

2. Biomethane must conform to the specifications shown in Table 2.

<table>
<thead>
<tr>
<th>Risk Management Levels</th>
<th>Risk from Carcinogenic Constituents (chances in a million)</th>
<th>Hazard Index from Non-Carcinogenic Constituents</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger Level $^1$</td>
<td>$\geq 1.0$</td>
<td>$\geq 0.1$</td>
<td>Periodic Testing Required</td>
</tr>
<tr>
<td>Lower Action Level $^2$</td>
<td>$\geq 10.0$</td>
<td>$\geq 1.0$</td>
<td>Supply shut-in after three exceedances in 12 months</td>
</tr>
<tr>
<td>Upper Action Level $^3$</td>
<td>$\geq 25.0$</td>
<td>$\geq 5.0$</td>
<td>Immediate supply shut-in</td>
</tr>
</tbody>
</table>

1. Applies to individual constituent concentrations.
2. Applies to the sum of all constituent concentrations over the trigger level.
3. Applies to individual constituent concentrations or to the sum of all constituent concentrations over the trigger level.

c. Testing

1) Testing shall be determined according to the source feedstock. Testing for the Health Protective Constituents shall be by the methods specified in Table V-4 of CARB/OEHHA Report submitted in R. 13-02-008 as approved by D. 14-01-034.

2) If requested, any retesting for validation of results can be done at the cost of the entity requesting the retest.

3) Responsibility for Testing

a) During Pre-Injection Testing and Biomethane Restart Procedure testing, gas quality testing will be performed by the Supplier using independent certified third party laboratories, and results will be shared with the receiving utility.

b) During Periodic Testing at the interconnection, the testing entity will be the utility, who will collect the samples and send the samples to the independent certified laboratories for constituent analyses. The results will be shared with the Supplier. For raw biogas testing, and the testing of biomethane prior to interconnection, the Supplier will be the testing entity.
C. QUALITY OF GAS (Cont’d.)

4) Pre-Injection Testing Procedure

a) Supplier will conduct two tests for all Constituents over a two to four week period.

b) If during the pre-injection testing, any Health Protective Constituents are found at or above the Trigger Level, the Biomethane’s collective potential cancer or non-cancer risk must be calculated. The collective potential cancer or non-cancer risk can be calculated by summing the individual risk for each Health Protective Group 2 Compound. If the collective potential cancer risk or non-cancer risk is at or above the Lower Action Level (the cancer risk Lower Action Level is >10 in a million and the non-cancer risk Lower Action Level is a Hazard Index of >1), the biomethane cannot be accepted or transported by the Utility’s pipeline system. The Supplier shall make necessary modifications to lower the collective potential cancer or non-cancer risk below the Lower Action Level and restart pre-injection testing.

c) If during the pre-injection testing the Health Protective constituents total potential cancer risk and non-cancer risk is below the Lower Action Level and Pipeline Integrity Protection Constituents are found to be below the Lower Action Level, if applicable, the Biomethane may be injected into the pipeline with Periodic Testing.

d) Per Section C.13.b.1) Table 1, Note 8, biomethane certified for reduced siloxane testing will be as follows:

i. If the pre-injection testing siloxane level is below or at the trigger level shown in Table 1, then no periodic siloxane testing is required under Section C.13.c.5) b) ii.

ii. If the pre-injection testing siloxane level exceeds the Trigger level shown in Table 1, then quarterly testing is required for one year, and if none of those samples are above the Lower Action Level shown in Table 1, then no periodic siloxane testing is required under Section C.13.c.5) b) ii.

iii. If the siloxane level is above the Lower Action Level shown in Table 1, then the biomethane certification for reduced testing is no longer applicable and the Supplier will be required to comply with the periodic testing requirements for siloxane under Section C.3.c.5) b) ii.
C. QUALITY OF GAS (Cont'd.)

5) Periodic Testing

a) Group 1 Compounds

i. Group 1 Compounds will be tested once every 12 month period in which injection occurs.

ii. Any Group 1 Compounds with a concentration below the test detection level or below the Trigger Level for two consecutive annual tests will be tested once every two year period in which deliveries occur.

iii. A Group 1 Compound will become a Group 2 Compound if testing indicates a concentration at or above the Trigger Level.

b) Group 2 Compounds

i. Testing for Group 2 Constituents will be quarterly.

ii. Individual Constituents

(a) Any Constituent with a concentration below the Trigger Level in four consecutive quarterly tests will be tested once every 12 month period in which injection occurs.

(b) If annual testing demonstrates that a Constituent concentration is at or above the Trigger Level, testing for that Constituent will revert to quarterly.

(c) If any constituent is above the Upper Action Level, the biomethane shall be shut-in until the concentration level is below the Lower Action Level, after which it will be subject to the Biomethane Restart Procedures (see C.13.c.6)).

(d) If applicable, when a Pipeline Integrity Protective Constituent is found at or above the Lower Action Level three times in a 12 month period, the biomethane shall be shut-in and subject to the biomethane restart procedures.

(Continued)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

C. QUALITY OF GAS (Cont’d.)

iii. Collective risk from Carcinogenic and Non-carcinogenic Health Protective Constituents

(a) Cancer Risk

The collective cancer risk for Group 2 compounds can be estimated by summing the individual potential cancer risk for each carcinogenic constituent of concern. Specifically, the cancer risk can be calculated using the ratio of the concentration of the constituent in the biomethane to the health protective (“trigger”) concentration value corresponding to one in a million cancer risk for that specific constituent and then summing the risk for all the Group 2 constituents. (for reference, see CARB/OEHHA Report submitted in R. 13-02-008, p. 67)

(b) Non-Cancer Risk

The collective non-cancer risk can be calculated using the ratio of the concentration of the constituent in biomethane to the health protective concentration value corresponding to a hazard quotient of 0.1 for that specific non carcinogenic constituent, then multiplying the ratio by 0.1, and then summing the non-cancer chronic risk for these Group 2 compounds. (for reference, see CARB/OEHHA Report submitted in R.13-02-008, p. 67)
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

C. QUALITY OF GAS (Cont’d.)

(c) If the result is at or above the Lower Action Level on three occurrences in a 12-month period, the Biomethane shall be shut-in until the concentrations are below the Lower Action Level, after which it will be subject to the Biomethane Restart Procedures (see C.13.c.6)).

(d) If quarterly testing over four consecutive tests demonstrates that the collective risk from Carcinogenic and Non-carcinogenic Constituents is below the Lower Action Level, then the testing period will change to once every 12 month period during which injection occurs for each Constituent in the group.

(e) If annual testing demonstrates that collective risk from Carcinogenic and Non-carcinogenic Constituents is at or above the Lower Action Level, then testing for the Carcinogenic or Non-carcinogenic Constituents will revert to quarterly.
GAS RULE NO. 21
TRANSPORTATION OF NATURAL GAS

C. QUALITY OF GAS (Cont’d.)

(f) If any Constituent concentration, or the collective risk from Carcinogenic or Non-carcinogenic Constituents, is at or above the Upper Action Level, the Biomethane shall be shut-in until the concentration is below the Lower Action Level, after which it will be subject to the Biomethane Restart Procedures (see C.13.c.6)).

(g) If Supplier’s Biomethane is refused in accordance with this Rule, testing for all Group 1 and Group 2 Compounds will then be performed according to the Biomethane Restart Procedure.

6) Biomethane Restart Procedure

a) The Pre-Injection Testing Procedure will be performed by the Supplier if

i. There is a change in the biogas source at the facility or a change of the biogas processing equipment design (other than for functional equivalence) that the Commission determines will potentially increase the level of any Constituent over the previously measured baseline levels.

ii. Biomethane injection into the pipeline is refused because there are three exceedances of the Lower Action Level in a 12-month period.

iii. Biomethane injection into the pipeline is refused because a Constituent concentration or the total cancer or non-cancer risk is above the Upper Action Level.

b) If the results of the first test indicate that all Constituents and collective potential cancer and non-cancer risk are below the Lower Action Level, Biomethane may be injected into the pipeline subject to the testing requirements in Section C.13.c.5).

c) After re-starting Biomethane deliveries, Periodic Testing for all Group 1 and Group 2 Compounds will be performed as indicated in Section C.13.c.5).

(Continued)
C. QUALITY OF GAS (Cont’d.)

d) Gas from Hazardous Waste Landfills

i. Biomethane sourced from Hazardous Waste Landfills will not be knowingly purchased, accepted into or transported on the pipeline system.

ii. Supplier must certify and provide documentation or other suitable proof that the biogas source feedstock was not derived or collected from a hazardous waste landfill, as defined herein.

e) Reporting and recordkeeping will be as described in D.14-01-034 and as specified in the CARB/OEHHA Report submitted in R.13-02-008.
D. ACCOUNTING AND BILLING

1. DESIGNATION OF QUANTITIES DELIVERED FOR TRANSPORTATION

PG&E may be receiving gas from various sources at the Receipt Point(s). Gas entering the PG&E system shall be measured by either PG&E or a third party designated by PG&E as its agent. Where such third party acts as PG&E’s measuring agent, the Customer shall accept as correct the agent’s determination of the quantity of gas (in Mcf and Decatherms) it has delivered to PG&E for the Customer’s account subject to the limitations of Rule 14. Where gas is measured by PG&E, the Customer shall accept as correct PG&E’s measurement of the gas received (see Section D.3 below for information about access to meters and charts and other records).

2. BILLING

Each month, PG&E shall send the Customer a bill. The bill will show the quantities of gas adjusted for In-Kind Shrinkage Allowance, delivered to PG&E for the Customer’s account at each Delivery Point for the billing month. PG&E may use estimated quantities in the bill, and the Customer shall be obligated to pay the estimated bill as presented; PG&E will then make any necessary adjustments in the subsequent months’ billings.
D. ACCOUNTING AND BILLING (Cont’d.)

3. BOOKS AND RECORDS

   PG&E and the Customer shall keep accounting records and books in
   accordance with generally accepted accounting principles and practices in the
   industry. PG&E and the Customer shall have the right to examine those books
   and accounting records of the other.

   Any examination will be at the examining party’s expense, must be conducted at
   a reasonable time, and must be confined to the extent necessary to verify the
   accuracy of any statement, charge, or computation or any demand made under
   or as a result of transporting Customer-Owned Gas.

E. ADDITIONAL FACILITIES

   Transportation of Customer-Owned Gas does not obligate PG&E to construct any
   additional facilities (including measuring facilities) or to modify any existing facilities
   to provide for receipt of Customer-Owned natural gas into the PG&E system.
   Customer shall have a separate agreement covering any new facilities or necessary
   modifications for either receipt or delivery of Customer-Owned Gas.

F. POSSESSION OF GAS

   For Customer Owned Gas, the Customer shall be deemed to be in control and
   possession of the gas until the gas is delivered to PG&E at the Receipt Point(s). The
   Customer shall be deemed to regain control and possession of the gas upon
   delivery from PG&E to or on behalf of the Customer.

G. INDEMNIFICATION

   The Customer shall indemnify and hold harmless PG&E, its officers, agents and
   employees against all loss, damage, expense, and liability, resulting from injury to or
   death of any person, including but not limited to employees of PG&E, Customer or
   any third party, or for loss, destruction, damage to property, including but not limited
   to property of PG&E, Customer, or any third party, arising out of or in any way
   connected with the transportation of customer-owned gas, however caused, except
   to the extent caused by the active negligence or willful misconduct of PG&E, its
   officers, agents and employees. The Customer shall on PG&E’s request, defend any
   suit asserting a claim covered by this indemnity. The indemnifying party shall pay all
   costs that may be incurred by the other party in enforcing this indemnity, including all
   reasonable attorney’s fees.

(Continued)
H. OPEN ACCESS Interconnection of NEW GAS SUPPLY

PG&E will provide non-discriminatory interconnection to its pipeline system for an Applicant to deliver new gas supply. Upon interconnection PG&E will provide open access transportation of the gas under the applicable PG&E rate schedules, rules and transportation agreements. PG&E will perform interconnection-related work under the following conditions:

1. The Applicant’s gas supply can be received into PG&E’s existing system without jeopardizing the integrity or normal operation of its pipeline system and without adversely affecting PG&E’s Customers. The specific interconnection point will be determined by PG&E.

2. The maximum delivery capacity for Applicant’s gas at the interconnection point will be determined by the size of the interconnection facilities and PG&E’s ability to redeliver the gas supply downstream of the interconnection point.

3. The available capacity for Applicant’s gas supply on any particular day may be affected by physical flows from other points of receipt, daily pipeline operating conditions, and end-use demand.

4. The Applicant shall pay PG&E’s costs for all engineering and construction of facilities on PG&E’s side of the interconnection point necessary to receive Applicant’s gas. Such facilities may include, but are not limited to, taps, valves, piping, measuring equipment, odorizing equipment, land rights, permits, and communication equipment. The Applicant also shall pay for computer programming changes to PG&E’s scheduling system, if any, required to add the Applicant’s new interconnection point for the purpose of nominating the gas. PG&E shall own and operate all facilities on PG&E’s side of the interconnection point.

5. The Applicant shall execute a standard “Agreement to Perform Tariff Schedule Related Work” (Form 62-4527), which shall contain a description of the work to be performed by PG&E, the cost estimate, and payment terms.

6. The Applicant, at its expense, shall obtain all land rights, easements, permits or other authorizations, and shall design and construct the piping, valves, filter separators, and other equipment that is required on the Applicant’s side of the interconnection point to effectuate deliveries of gas to PG&E, in accordance with sound and prudent natural gas industry practice and with all applicable laws, rules, and regulations of any authority having jurisdiction.

(Continued)
H. OPEN ACCESS INTERCONNECTION OF NEW GAS SUPPLY (Cont’d.)

7. The Applicant shall install and maintain in good working condition the necessary pressure regulation and flow equipment to effectuate delivery of gas to the interconnection point at or above the prevailing pressure in PG&E’s pipeline. Applicant’s equipment shall be designed and installed to protect PG&E’s pipeline from exposure to pressures in excess of PG&E’s then current maximum operating pressure at the interconnection point.

8. Applicant’s gas supply at the interconnection point shall comply with all PG&E tariffs and rules including gas quality and nomination procedures.

9. The Applicant and PG&E shall execute operating and balancing agreements prior to final interconnection and gas flow.

10. Pursuant to D.15-06-029, approved June 11, 2015, as modified by D.16-12-043, biomethane project developers are eligible to participate in a monetary incentive program to encourage biomethane project developers to successfully operate projects that can safely interconnect with PG&E’s pipelines and inject biomethane for PG&E customer usage. The total state-wide monetary incentives for this monetary incentive program is capped at $40 million for five years ending on December 31, 2021 or until the program has exhausted funding including the California Council on Science and Technology study costs. Biomethane project developers can receive up to 50% of the project’s eligible interconnection costs, up to $3 million for a non-dairy cluster biomethane project and up to $5 million for a dairy cluster biomethane project. Eligible interconnection costs to be credited under this incentive program include study and design costs, total installed costs of receipt point facilities (e.g., meters, regulators, appurtenant facilities, quality measurement, odorization facilities and auxiliary facilities), PG&E facility enhancement costs (e.g., PG&E-owned gas pipelines, other related system upgrades and enhancements required to enable continued safe and reliable operation of PG&E’s system due to the addition of each biomethane interconnection). For a dairy cluster biomethane project as defined in Public Utilities Code 399.19(b), the eligible interconnection costs also include project developer costs for biogas gathering lines, which includes multiple pipelines installed to transport biogas from three or more dairies in close proximity to one another for injection into PG&E’s pipeline system.
H. OPEN ACCESS INTERCONNECTION OF NEW GAS SUPPLY (Cont’d.)

10. Engineering and capacity studies and agreement terms and conditions are specified in PG&E Gas Rule 21. These eligible facility costs include the costs necessary to interconnect downstream of the biomethane project developer’s processing plants for the purposes of delivering biomethane onto PG&E’s system. For example, pipeline costs from the biomethane project developer’s plant to PG&E’s pipeline for purposes of injecting biomethane onto PG&E’s system is an eligible cost under the monetary incentive program, whereas any pipeline costs from PG&E’s pipeline to the biomethane project developer’s facilities for the purposes of blending to increase the heating value is not an eligible cost under the monetary incentive program. Other upstream costs, such as the costs for processing or blending, (including the pipelines used for blending), do not qualify as eligible interconnection costs under the monetary incentive program. The biomethane project developer shall provide cost information to PG&E for eligible costs in a timely manner, as specified by PG&E. To be eligible for the monetary incentive program, a biomethane project developer must comply with the standards and protocols adopted in D.14-01-034 as modified by D.16-11-008, successfully interconnect to PG&E’s pipeline system and meet the operational requirement as described in D.15-06-029 as modified by D.16-12-043, and provide cost information to PG&E for eligible costs in a timely manner, as specified by PG&E.

11. Biomethane project developers must meet the 30-day operational requirement to be eligible for the incentive program pursuant to D.15-06-029 as modified by D.16-12-043. The operational requirement shall be met only if the biomethane project developer successfully interconnects with PG&E’s pipeline system, and remains in operation for a minimum of 30 out of 40 days with a flow each of those 30 days within the measurement range of the meter, as specified by PG&E measurement standards and based on the meter type as specified by PG&E and site conditions and shall exclude any interruption of delivery as specified by PG&E Gas Rule 14. The biomethane developer must notify PG&E in writing at least 2 business days prior to the start of flows so as to specify the 40 day testing period. A biomethane developer can restart Day 1 of the testing period at any time by providing a new written notification at least 2 business days in advance of when the new 40-day testing period is to begin and end.

(Continued)
H. OPEN ACCESS INTERCONNECTION OF NEW GAS SUPPLY (Cont’d.)

12. Within 60 days following the successful operational period, PG&E will pay or credit the biomethane project developer in the amount of 50% of the eligible reconciled and undisputed portions of the interconnection costs not to exceed $3 million for a non-dairy cluster biomethane project or $5 million for a dairy cluster biomethane project. A payment will be provided to the biomethane project developer if all costs have been paid in full; if there are remaining costs they shall be treated as a credit. In the event that all interconnection costs have not been reconciled by PG&E and the developer within 60 days following the successful operational period, PG&E shall resume paying the biomethane project developer upon cost reconciliation. If additional eligible cost information becomes available within 12 months following the initial payment, the utility shall pay to the biomethane project developer 50% of the remaining eligible interconnection costs, not to exceed $3 million for a non-dairy cluster biomethane project or $5 million for a dairy cluster biomethane project, including all previous payments. PG&E will provide notification to the CPUC Director of the Energy Division and the biomethane project developer of the initial payment as well as any other potentially eligible future payments.