

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



December 12, 2014

Mr. Justin Lee Brown  
Vice President/Regulation and Public Affairs  
Southwest Gas Corporation  
P.O. Box 98510  
Las Vegas, Nevada 89193-8510

Subject: Southwest Gas Advice Letter 933-A Regarding Biomethane Pipeline Injection Requirements in Compliance with Decision (D.) 14-01-034

Dear Mr. Brown:

Southwest Gas (SWG) Advice Letter (AL) 933-A is effective October 21, 2014.

### **Background**

California Assembly Bill (AB) 1900 required the California Public Utilities Commission (Commission or CPUC) to approve standards and requirements for health, safety, and pipeline integrity for biomethane injected into utility pipelines, and rules for nondiscriminatory open access.

The Commission is addressing AB 1900 in Rulemaking (R.) 13-02-008 in a Phase I and Phase II decision.

The Phase I decision, Decision (D.) 14-01-034, adopted 17 constituents of concern related to biomethane, and the monitoring, testing, reporting, and recordkeeping protocols that were recommended for adoption by the California Air Resources Board and the Office of Environmental Health Hazard Assessment (ARB and OEHHA, respectively) in their *Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline* issued on May 15, 2013. D.14-01-034 also specified pipeline safety and integrity concentration limits modeled on the ARB/OEHHA recommendations.

The Phase II decision in R.13-02-008 is pending. There is no firm date for when the Phase II decision will be issued.

SWG filed its initial compliance AL 933 on February 18, 2014. This advice letter was intended to implement the Phase I decision, D.14-01-034. SWG filed a supplemental AL 933-A on October 21, 2014.

### **The Coalition for Renewable Natural Gas (CRNG)'s Protest**

The Coalition for Renewable Natural Gas (CRNG) filed a protest on March 10, 2014 for two reasons.

First, CRNG protested on the grounds that SWG's Gas Rule 22 Section E, Item 1.b, 1.d, and 1.f improperly assign the costs of periodic testing requirements to the party interconnecting with SWG.

Second, CRNG protested on the grounds that SWG's proposed revision to Gas Rule 22 Section C, Item 3 would improperly provide for the continuous monitoring of process upgrading integrity. Upgrading means the process of turning raw biogas into relatively clean biomethane suitable for pipeline injection.

The disputed Gas Rule 22, Section C, Item 3 reads in AL 933:

#### Continuous Monitoring of Upgrading Process Integrity

In addition to the periodic testing, the Company and Biomethane Gas supplier shall agree upon a means to continuously monitor the efficacy of the Biogas to Biomethane Gas upgrading process in removing Constituents. Absent an agreement otherwise, the Biomethane Gas supplier's compliance with the specifications set forth in this Rule and the Company's Rule No. 21, Transportation of Customer-Secured Natural Gas, shall be used as an indicator that the upgrading system is operating effectively. If the indicators used to continuously monitor upgrading process integrity indicate that the upgrading system is not consistently performing effectively, the Company may accelerate the periodic testing schedule and initiate testing. Accelerated periodic testing shall count toward the recommended periodic testing requirements described herein.

The disputed Gas Rule 22, Section C, Item 3 reads in AL 933-A:

Absent an agreement otherwise, the Biomethane Gas supplier's compliance with the specifications set forth in this Rule and the Company's Rule No. 21, Transportation of Customer-Secured Natural Gas, shall be used as an indicator that the upgrading system is effectively conditioning and upgrading the Biomethane Gas. If the continuous monitoring indicates that the Biomethane Gas has not been adequately or sufficiently conditioned and upgraded, the Company may accelerate the periodic testing schedule and initiate testing. Accelerated periodic testing shall count toward the recommended periodic testing requirements described herein.

#### SWG's Reply to Protest

SWG responded to the protest on March 17, 2014.

As to the first grounds for protest, SWG states that its California Gas Tariff did not have an Interconnection Rule since SWG takes all of its gas in California from other utility pipeline companies.

SWG goes on to explain that the disputed language was proposed in order to be consistent with existing industry-standard interconnector/utility cost conventions and to ensure non-discriminatory open access requirements pursuant to D.14-01-034. That is, SWG seeks to conform to gas utility industry standards in California where parties seeking to interconnect with SWG, such as biomethane producers, pay for such costs, and in the case of biomethane producers, the producers would also pay for periodic testing, monitoring, and recordkeeping costs.

As to the second grounds for protest, SWG argued that its proposed language was consistent with the CARB/OEHHA recommendations that D.14-01-034 adopted. Specifically, page 65 of the CARB/OEHHA-authored and Commission-adopted *Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline* issued on May 15, 2013 states in relevant part:

The utility and the biomethane production facility should agree upon a continuous monitoring method to verify that the upgrading process is operating effectively. If a monitoring method cannot be agreed upon, then we recommend that the tariff requirements for natural gas be used as an indicator that the upgrading system is operating effectively.

Justin Lee Brown  
December 12, 2014  
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SWG filed a supplemental AL 933-A on October 21, 2014 to further clarify the portions of AL 933 to which CRNG protested. Nevertheless, CRNG has not withdrawn its protest.

No party filed a protest to SWG's supplemental AL 933-A.

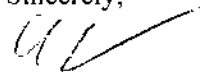
**Energy Division**

The Energy Division rejects CRNG's protest for the following reasons:

1. California interconnector cost allocation principles predate AL 933 and AL 933-A and R.13-02-008.
2. The tariffs for other major California gas utilities such as Pacific Gas and Electric Company, Southern California Gas Company and San Diego Gas & Electric Company include gas rules that express those interconnection requirements.
3. D.14-01-034 did not order a change to the interconnection cost allocation principles in other utilities' gas rules.
4. In the absence of a final Phase II decision in R.13-02-008, there is no reason to believe that interconnection or Phase I compliance cost allocation practices would differ from pre-existing cost allocation practices.
5. Nothing in the Phase I decision or AL 933 or AL 933-A precludes changes to the existing cost allocation practices, therefore approval of those advice letters would not prejudice the outcome of the Phase II decision or harm the protesting party.
6. D.14-01-034 is consistent with CARB/OEHHA recommendations.
7. SWG's language in AL 933-A is consistent with the Phase I Decision D.14-01-034 and appropriately implements what CARB/OEHHA recommended with regard to default rules if an agreement could not be reached on a continuous monitoring method to verify that the upgrading process is operating effectively.

The Energy Division hereby approves SWG AL 933-A.

Sincerely,



Edward Randolph  
Director, Energy Division

Cc: Richard Myers, Energy Division  
Franz Cheng, Energy Division  
Johannes Escudero, Coalition for Renewable Natural Gas  
Valerie J. Ontiveroz, SWG



## **SOUTHWEST GAS CORPORATION**

October 21, 2014

ATTN: Tariff Unit, Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue, Room 4005  
San Francisco, CA 94102

Subject: Southwest Gas Corporation (U 905 G)  
Advice Letter No. 933-A

Enclosed herewith are original and one (1) copy of Southwest Gas Corporation's Advice Letter No. 933-A together with California Gas Tariff P.U.C. Sheet Nos. 163, 249-251 and 276 through 279.14.

Sincerely,

Justin Lee Brown  
Vice President/Regulation and Public Affairs

JLB:vo  
Enclosures



# SOUTHWEST GAS CORPORATION

Advice Letter No. 933-A

October 21, 2014

## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Southwest Gas Corporation (Southwest Gas or Company) (U 905 G) hereby tenders for filing the following tariff sheets:

### California Gas Tariff

Cal. P.U.C. Sheet No.	Title of Sheet	Canceling Cal. P.U.C. Sheet No.
1 <sup>st</sup> Revised Sheet No. 163	Rule No. 2 – Description of Service	Original Sheet No. 163
1 <sup>st</sup> Revised Sheet No. 249	Rule No. 21 – Transportation of Customer-Secured Natural Gas	Original Sheet No. 249
1 <sup>st</sup> Revised Sheet No. 250	Rule No. 21 – Transportation of Customer-Secured Natural Gas (Continued)	Original Sheet No. 250
1 <sup>st</sup> Revised Sheet No. 251	Rule No. 21 – Transportation of Customer-Secured Natural Gas (Continued)	Original Sheet No. 251
1 <sup>st</sup> Revised Sheet No. 276	Rule No. 22 - Biomethane Gas	Original Sheet No. 276
1 <sup>st</sup> Revised Sheet No. 277	Rule No. 22 - Biomethane Gas (Continued)	Original Sheet No. 277
1 <sup>st</sup> Revised Sheet No. 278	Rule No. 22 - Biomethane Gas (Continued)	Original Sheet No. 278
1 <sup>st</sup> Revised Sheet No. 279	Rule No. 22 - Biomethane Gas (Continued)	Original Sheet No. 279
Original Sheet No. 279.1	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.2	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.3	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.4	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.5	Rule No. 22 - Biomethane Gas (Continued)	



**California Gas Tariff  
(Continued)**

Cal. P.U.C. Sheet No.	Title of Sheet	Canceling Cal. P.U.C. Sheet No.
Original Sheet No. 279.6	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.7	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.8	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.9	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.10	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.11	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.12	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.13	Rule No. 22 - Biomethane Gas (Continued)	
Original Sheet No. 279.14	Rule No. 22 - Biomethane Gas (Continued)	

**Purpose**

Pursuant to the direction from the Commission's Energy Division, Southwest Gas submits this supplemental Advice Letter (AL) to replace in its entirety the Company's AL 933, filed on February 18, 2014. This supplemental AL modifies the proposed tariffs submitted in AL 933 by incorporating various suggested revisions received from the Energy Division and the California Air Resources Board (CARB).

This AL complies with Ordering Paragraphs (OP) 4, 12, and 14 of Decision (D.)14-01-034 in Rulemaking 13-02-008.

**Background**

Assembly Bill (AB) 1900 required the Commission to approve standards and requirements for health, safety, and pipeline integrity for biomethane injected into utility pipelines and access rules ensuring nondiscriminatory open access. Per D.14-01-034, issued on January 22, 2014, the Commission identified 17 constituents of concern related to biomethane, and adopted the monitoring, testing, reporting, and



recordkeeping protocols recommended in the May 15, 2013, *Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline* (Joint Report).

OP 2 of D.14-01-034, the Commission clarified and adopted "...the monitoring, testing, reporting, and recordkeeping protocols that were recommended for adoption..." in the Joint Report. However, there are inconsistencies between the Joint Report and the Decision. As such, this AL incorporates aspects of the Joint Report which differ from D.14-01-034.

First, in the discussion of shut-off and restart procedures, D.14-01-034 requires the biomethane supplier to meet the "trigger level" before it can resume operation.<sup>1</sup> The Joint Report recommends that the biomethane supplier meet the "lower action level" before it can resume operation.<sup>2</sup>

Second, D.14-01-034 states that the total health risk should be "eliminated" when constituents are above the trigger level.<sup>3</sup> The Joint Report recommends that the total health risk be "estimated" and maintained below certain levels deemed reasonable by the CARB and the Office of Environmental Health Hazard Assessment.<sup>4</sup>

Finally, D.14-01-034 does not include a correction to the Joint Report which was issued by CARB on May 23, 2013.<sup>5</sup> Southwest Gas believes the above discrepancies were made in error, and anticipates the Commission will take additional steps to modify D.14-01-034 so as to parallel the May 23, 2013 version of the Joint Report.

### **Effective Date**

Southwest Gas believes this AL is subject to Energy Division disposition and should be classified as Tier 1 (Effective Pending Disposition). Southwest Gas respectfully requests that this AL be made effective October 21, 2014, which is the date of filing.

### **Protest**

There is no restriction regarding who may file a protest of this AL. The protest should set forth the grounds upon which it is based and should be submitted expeditiously. The protest must be made in writing and submitted within ten (10) days of the date of this AL, which is October 31, 2014. The shortened protest period has been made at the direction of the Energy Division. Protests should be mailed to:

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<sup>1</sup> D.14-01-034, mimeo., at 82.

<sup>2</sup> Recommendations at 68.

<sup>3</sup> Decision 14-01-034, mimeo., at 100.

<sup>4</sup> Recommendations at 67.

<sup>5</sup> See Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline at 2, footnote 2 ("Errata: An error in the report released on May 15, 2013 resulted in p-Dichlorobenzene being checked as a constituent of concern for dairies instead of for POTWs. This error was corrected on May 23, 2013 and is reflected in this document.")



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California Public Utilities Commission, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue, Room 4002  
San Francisco, CA 94102  
Email: EDTariffUnit@cpuc.ca.gov

A copy should also be mailed to the attention of Director, Energy Division, Room 4004 at the same address as above, and mailed and faxed to:

Mr. Justin Lee Brown  
Vice President/Regulation and Public Affairs  
Southwest Gas Corporation  
P.O. Box 98510  
Las Vegas, Nevada 89193-8510  
Facsimile: 702-364-3452

**Notice**

Pursuant to Energy Industry Rule 3.1(1), Southwest Gas is exempt from the notice requirements set forth in General Rule 4.2 in G.O. 96-B since the tariff revisions proposed herein are being filed in compliance with D.14-01-034.

**Service**

In accordance with General Order 96-B, General Rule 4.3, Southwest Gas is mailing copies of this advice letter and related tariff sheets to the utilities and interested parties shown on the attached list.

Communications regarding this filing should be directed to:

Valerie J. Ontiveroz  
Regulatory Manager/California  
Southwest Gas Corporation  
P.O. Box 98510  
Las Vegas, NV 89193-8510  
Telephone : 702-876-7323  
E-mail: [valerie.ontiveroz@swgas.com](mailto:valerie.ontiveroz@swgas.com)

Respectfully submitted,

SOUTHWEST GAS CORPORATION

A handwritten signature in blue ink, appearing to read "Justin Lee Brown".

By \_\_\_\_\_  
Justin Lee. Brown

Attachments



DISTRIBUTION LIST

Advice Letter No. 933-A

In accordance with General Order 96B, General Rule 4.3

Southern California Edison Company

Pacific Gas & Electric Company

Sierra Pacific Power Company

San Diego Gas & Electric Company

Southern California Gas Company  
([Tariff@socalgas.com](mailto:Tariff@socalgas.com))

Southern California Water Company

Director/Office of Ratepayer Advocates

Robert M. Pocta, Office of Ratepayer Advocates  
([rmp@cpuc.ca.gov](mailto:rmp@cpuc.ca.gov))

Nathanial Skinner, Office of Ratepayer Advocates  
([nws@cpuc.ca.gov](mailto:nws@cpuc.ca.gov))

Pearlie Sabino, Office of Ratepayer Advocates  
([pzs@cpuc.ca.gov](mailto:pzs@cpuc.ca.gov))

# CALIFORNIA PUBLIC UTILITIES COMMISSION

## ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Southwest Gas Corporation (U 905 G)**

Utility type:

ELC **XX GAS**

PLC  HEAT  WATER

Contact Person: **Valerie J. Ontiveroz**

Phone #: **(702) 876-7323**

E-mail: **valerie.ontiveroz@swgas.com**

EXPLANATION OF UTILITY TYPE

ELC = Electric  
PLC = Pipeline

GAS = Gas  
HEAT = Heat

WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **933-A**

Subject of AL: **Compliance filing to incorporate new Rule No. 22, Biomethane Gas, into CA Gas Tariff**

Keywords (choose from CPUC listing): **Rule/Compliance**

AL filing type:  Monthly  Quarterly  Annual **XX One-Time**  Other \_\_\_\_\_

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: **D.14-01-034**

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL **Not applicable**

Summarize differences between the AL and the prior withdrawn or rejected AL<sup>1</sup>: **Not applicable**

Resolution Required?  Yes **XX No**

Tier Review Level? **XX 1**  2  3

Requested effective date: **October 21, 2014**

No. of tariff sheets: **57**

Estimated system annual revenue effect (%): **Not applicable**

Estimated system average rate effect (%): **Not applicable**

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: **Rules**

Service affected and changes proposed<sup>1</sup>: **See 'Subject of AL' above**

Pending advice letters that revise the same tariff sheets: **Not applicable**

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:**

**CPUC, Energy Division**

**Attention: Tariff Unit**

**505 Van Ness Ave.,**

**San Francisco, CA 94102**

**jjr@cpuc.ca.gov and [inj@cpuc.ca.gov](mailto:inj@cpuc.ca.gov)**

**Utility Info (including e-mail)**

**Mr. Justin Lee Brown**

**Vice President/Regulation and  
Public Affairs**

**Southwest Gas Corporation**

**P. O. Box 98510**

**Las Vegas, NV 89193-8510**

**justin.brown@swgas.com**

**Facsimile: 702-876-7037**

<sup>1</sup> Discuss in AL if more space is needed.

RULE NO. 2

DESCRIPTION OF SERVICE

A. KIND AND HEATING VALUE

The Company supplies natural gas, which may include Biomethane Gas pursuant to Rule No. 22, Biomethane Gas, of this California Gas Tariff, and which is altered from the natural state only by the removal of any condensible constituents or of injurious impurities and by the addition of a warning odorant. The heating value of natural gas supplied by the Company will vary from time to time depending upon the fields being drawn upon. The average monthly heating value in British thermal units (Btu) — dry basis — per cubic foot of the natural gas served may be expected to vary within the limits of 950 to 1,150 Btu.

B. PRESSURES

Gas is supplied by the Company either at standard "low pressure" (4 ounces) or at "high pressure." Low pressure service is available at all points where gas is supplied at all. Where available from existing high pressure mains, at the option of the Company, high pressure service will be supplied. The Company reserves the right to lower the pressure or discontinue the delivery of gas at high pressure.

C. DETERMINATION OF THERMS TO BE BILLED

1. Average Heating Value

The average heating value (Btu per cubic foot) used in billing shall be determined by means of a recording calorimeter, employing the Thomas principle of calorimetry, or by means of some other recognized method which is approved by the Commission. The average total heating value in any billing period shall be the arithmetic average of the total heating values for each day during such period. In the event the Company is unable to utilize its own recording calorimeter, the daily average heating values of the gas delivered by the supplier shall be used.

2. Positive Displacement Metering

The number of therms to be billed will be determined by multiplying the difference in meter reading by an appropriate billing factor.

RULE NO. 21

TRANSPORTATION OF CUSTOMER-SECURED NATURAL GAS

This Rule describes the general terms and conditions that apply whenever the Company transports Customer-Secured Gas through its system. Customers electing to secure Biomethane Gas from a Biomethane Gas supplier that is also interconnected with the Company's system may only do so if such Biomethane Gas supplier complies with all terms and conditions set forth in Rule No. 22, Biomethane Gas, of this California Gas Tariff.

A. CHARACTER OF SERVICE

1. The basic transportation service rendered under Schedule Nos. GN-T, GS-70/ GN-70/SLT-70, and GSR shall consist of:
  - a. The receipt by the Company for the account of the customer of gas at the interconnection between the Company, and its upstream pipeline supplier [herein called receipt point(s)].
  - b. The transportation of the customer's gas through the Company's system for the account of the customer; and
  - c. The delivery of the customer's gas after transportation by the Company for the account of the customer at the point(s) of delivery into the customer's facility.
2. Core transportation customers in the Company's California service areas, including groups aggregating core loads, will be allocated a pro rata share of the gas storage services that are available to the Company. The Company will inform the customer or Aggregator of the monthly and daily storage entitlement available to that customer or group.

Gas may be injected into storage from April 1 to October 31 and may be withdrawn from storage from November 1 to March 31. The customer must inform the Company of the customer's storage injection schedule by the 23rd day of the month prior to actual gas injection. Daily storage injection nominations may not exceed 110% percent of the month's average daily storage injection quantity. Customers are not required to provide a monthly storage withdrawal nomination, but must provide the Company an estimate of the quantity expected to be withdrawn each month. Daily nominations for storage injections and withdrawals require a 48 hour advance notice.

Charges for this storage service are included as the Upstream Storage Charges contained in the Statement of Rates applicable to the Southern and

RULE NO. 21

TRANSPORTATION OF CUSTOMER-SECURED NATURAL GAS

(Continued)

A. CHARACTER OF SERVICE (Continued)

Northern California Divisions and the South Lake Tahoe District. In accordance with Section G.4 of this Rule, the customer shall reimburse the Company for any additional charges incurred by the Company in conjunction with the customer's use of storage services.

3. The services provided under Schedule Nos. GN-T, GS-70/GN-70/SLT-70 and GSR shall be provided on a best efforts basis. The Company may curtail or interrupt service due to operating conditions or conditions of *force majeure*. In the event of curtailment or interruption of service, the Company shall provide service as follows:
  - a. The Company shall provide the customer with as much advance notice as is practical of any curtailment or interruption of service;
  - b. The customer's service under Schedule Nos. GN-T, GS-70/GN-70/SLT-70 and GSR shall be curtailed in accordance with Rule No. 20 of this California Gas Tariff; and
  - c. The Company may, to the extent feasible, continue to receive the customer's gas at the receipt point(s) on a scheduled basis during the period of curtailment or interruption, and shall, to the extent feasible, redeliver such gas at the point(s) of delivery. For the period of curtailment or interruption, the Company may waive any payments that may otherwise be due pursuant to Section D hereof, to the extent that such payments are caused by the curtailment or interruption.
4. Gas transported under Schedule Nos. GN-T, GS-70/GN-70/SLT-70 and GSR shall be for use only by the customer, unless the Commission has specifically authorized the customer otherwise to resell such transported gas. Service under the provisions of Schedule No. GN-T shall not constitute the dedication of the Company's pipeline system or any portion thereof to the customer.

B. GAS SPECIFICATIONS

1. Unless otherwise agreed to by both parties, the gas delivered to the Company must meet the quality specifications required by the Company's upstream pipeline supplier(s).

RULE NO. 21

TRANSPORTATION OF CUSTOMER-SECURED NATURAL GAS

(Continued)

B. GAS SPECIFICATIONS (Continued)

2. It must also be at the pressure (See Rule No. 2 of this California Gas Tariff) and have the value specified in the customer's transportation service agreement.

C. QUANTITIES OF GAS

1. The Company shall not be obligated to accept customer's gas in excess of amounts it advises customer it can accept. The Company shall not be required to continue to accept gas at any receipt point when the daily flow rate at that receipt point(s) is less than 50 Mcf per day.
2. Gas Industry Standards Board guidelines will be followed regarding nominating, confirming and scheduling gas receipts and deliveries as they may be revised by the FERC from time to time. The customer shall be responsible for contacting the upstream interstate pipeline(s) to arrange for the nominating and scheduling of receipts and deliveries hereunder, provided; however, that the customer may designate one party to serve as its Agent for such purpose. In the Company's Southern California Division, such contact shall be made to the Company. The Company and upstream interstate pipeline(s) require that specific information be provided to successfully process each nomination. It is the customer's or their Agent's responsibility to satisfy the information requirements.

Nominations Made Directly to the Upstream Interstate Pipeline(s): If the customer nominates directly to the upstream interstate pipeline(s), the customer or Agent must provide their nomination(s) to the Company via facsimile or other Company-approved method prior to the nomination deadlines set forth below:

Cycle 1 (Timely Nominations)	9:30 a.m. Pacific Clock Time on the day prior to flow.
Cycle 2 (Evening Nominations)	4:00 p.m. Pacific Clock Time on the day prior to flow.
Cycle 3 (Intraday Nominations)	8:00 a.m. Pacific Clock Time on the flow day.
Cycle 4 (Intraday Nominations)	3:00 p.m. Pacific Clock Time on the flow day.

RULE NO. 22

BIOMETHANE GAS

APPLICABILITY

This Rule applies to suppliers of Biomethane Gas and provides the general terms and conditions that apply to the interconnection between a Biomethane Gas supplier's facilities and the Company's facilities and the Company's receipt of Biomethane Gas into its system from such interconnection point(s). This Rule is intended to implement Decision (D.) 14-01-034, including rules regarding Constituent concentration standards, monitoring and testing requirements, and reporting and recordkeeping requirements.

A. DEFINITIONS

ARB: Air Resources Board of the California Environmental Protection Agency.

Biogas: A mixture of methane and carbon dioxide that is produced by the anaerobic digestion with anaerobic bacteria or fermentation of biodegradable materials such as biomass (manure, sewage, green waste, plant material, crops, and municipal waste or landfills).

Biomethane Gas: Biogas that has been treated by removing condensable constituents, minimizing the concentration of certain impurities and adding a warning odorant.

CARB/OEHHA Report: *Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline*, prepared by Staff of the California Air Resources Board and the Office of Health Hazard Assessment. The CARB/OEHHA Report was submitted in Rulemaking 13-02-008 and adopted in D.14-01-034.

Constituent of Concern (Constituent): A chemical or compound that may impact the merchantability of Biomethane Gas.

(a) Health Protective Constituents include:

1. Carcinogenic (cancer risk): arsenic, p-Dichlorobenzene, ethylbenzene, n-Nitroso-di-n-propylamine, and vinyl chloride.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

A. DEFINITIONS (Continued)

2. Non-carcinogenic (non-cancer risk 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.

Group 1  
Constituent: Any Health Protective Constituent with a concentration below  
the test detection level or below the Trigger Level.

Group 2  
Constituent: Any Health Protective Constituent with a concentration at or  
above the Trigger Level.

Hazardous Waste  
Landfill: For the purposes of this Rule, hazardous waste landfill shall be  
given the same definition as provided in the California Health  
and Safety Code, including facilities permitted by the  
Department of Toxic Substances Control.

Lower Action  
Level: Where applicable, a testing level used to screen Biomethane  
Gas during the initial gas quality review and as an ongoing  
screening level during periodic testing.

Merchantability: The ability to purchase, sell or market Biomethane Gas.

OEHHA: Office of Environmental Health Hazard Assessment.

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

Upgrading: Increasing the percentage of methane in Biogas by removing  
carbon dioxide and other trace components to achieve pipeline  
quality gas (Biomethane Gas).

Upper Action  
Level: A testing level that if reached for any Constituent results in  
immediate shut-off of Biomethane Gas supply.



RULE NO. 22

BIOMETHANE GAS  
(Continued)

B. BIOMETHANE GAS SPECIFICATIONS

1. Biomethane Gas must meet the gas quality specifications identified in this Rule and the Company's Rule No. 21, Transportation of Customer-Secured Natural Gas, of this California Gas Tariff, as adopted and periodically updated by the Commission.
2. Biomethane Gas received into the Company's system shall conform to the following quality specifications at the time of receipt:
  - a. Biomethane Gas must be free from bacteria, pathogens, dust, sand, dirt, gums, oils, and/or any other substances at levels that would be injurious to the Company's facilities, and/or to render the gas unmerchantable.
  - b. Biomethane Gas delivered into the Company's system at the point(s) of receipt shall be at a pressure that can be integrated into the Company's system.
  - c. Delivery Temperature: Biomethane Gas delivery temperature is not to be below 40 degrees Fahrenheit or above 120 degrees Fahrenheit.
  - d. Biomethane Gas Interchangeability: Biomethane Gas shall be interchangeable with the gas in the Company's receiving pipeline. Biomethane Gas shall have a minimum Wobbe Number of 1280. Biomethane Gas shall meet American Gas Association's Lifting Index, Flashback Index and Yellow Tip Index interchangeability indices for high methane gas relative to a typical composition of gas in the Company's system serving the area. Acceptable specification ranges are: \* Lifting Index (IL);  $IL \leq 1.06$ ; \* Flashback Index (IF);  $IF \leq 1.2$ ; \* Yellow Tip Index (IY);  $IY \geq 0.8$ .
  - e. Inert gases: Biomethane Gas supplied shall not contain greater than 4% of total combined inert compounds, which includes maximums of 0.2% oxygen, 3% nitrogen, 2% carbon dioxide, and any other inert gas by total volume.
  - f. Sulfur: Biomethane Gas shall not contain more than 20 grains of total sulfur compounds, measured as sulfur, per 100 standard cubic feet or 380 ppm total sulfur. This includes COS and CS<sub>2</sub>, hydrogen sulfide, mercaptans, and mono di and poly sulfides.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

B. BIOMETHANE GAS SPECIFICATIONS (Continued)

- g. Liquids: Biomethane Gas shall contain no liquids at, or immediately downstream of the receipt point(s).
  - h. Hydrocarbon Dew Point for Biomethane Gas is not to exceed 20 degrees Fahrenheit.
  - i. Water Content: Biomethane Gas received into the Company's system shall have a water content of less than 7 pounds per million standard cubic feet.
3. Biomethane Gas must not contain any hazardous substances at concentration levels which would prevent or unduly impact the merchantability of Biomethane Gas, be injurious to Company facilities, or which would present a health and/or safety hazard to Company employees, customers, and/or the public.
4. In addition to conforming to the specifications identified above, Biomethane Gas must also conform at the time of delivery to the following limits set forth in Table 1, which are specifically related to Biomethane Gas, and which may be adopted and periodically updated by the Commission:

N  
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RULE NO. 22

**BIOMETHANE GAS**  
*(Continued)*

B. **BIOMETHANE GAS SPECIFICATIONS** *(Continued)*

Table 1 <sup>1</sup> Concentration Standards for Biomethane Gas Constituents			
Constituent	Trigger Level	Lower Action Level	Upper Action Level
<b>Health Protective Constituents</b>			
<b><u>Carcinogenic</u></b>			
Arsenic	0.019 (0.006)	0.19 (0.06)	0.48 (0.15)
p-Dichlorobenzenes	5.7 (0.95)	57 (9.5)	140 (24)
Ethylbenzene	26 (6.0)	260 (60)	650 (150)
n-Nitroso-di-npropylamine	0.033 (0.006)	0.33 (0.06)	0.81 (0.15)
Vinyl Chloride	0.84 (0.33)	8.4 (3.3)	21 (8.3)
<b><u>Non-Carcinogenic</u></b>			
Antimony	0.60 (0.12)	6.0 (1.2)	30 (6.1)
Copper	0.060 (0.02)	0.60 (0.23)	3.0 (1.2)
Hydrogen Sulfide	30 (22)	300 (216)	1,500 (1,080)
Lead	0.075 (0.009)	0.75 (0.09)	3.8 (0.44)
Methacrolein	1.1 (0.37)	11 (3.7)	53 (18)
Alkyl Thiols (Mercaptans)	N/A (12)	N/A (120)	N/A (610)
Toluene	904 (240)	9,000 (2,400)	45,000 (12,000)
<b><u>Pipeline Integrity Protective Constituents<sup>1</sup></u></b>			
Siloxanes	0.01 mg Si/m <sup>3</sup>	0.1 mg Si/m <sup>3</sup>	-
Ammonia	0.001%		-
Hydrogen	0.1%	-	-
Mercury	0.08 mg/m <sup>3</sup>	-	-
Biologicals	4 x 10 <sup>4</sup> /scf (qPCR per APB, SRB, IOB group <sup>2</sup> ) and Free of <0.2 micron filter	-	-

<sup>1</sup> The first number in Table 1, Health Protective Constituents, are in mg/m<sup>3</sup>, while the second number in ( ) is in ppm<sub>v</sub>.

<sup>2</sup> The Pipeline Integrity Protective Constituent Lower and Upper Action Level limits will be established in the Commission's next update proceeding. Until that time, Biomethane Gas that contains Pipeline Integrity Protective Constituents exceeding the Trigger Level, but lacking a Lower or Upper Action Level, will be analyzed and addressed on a case-by-case basis based on the Biomethane Gas' potential impact on the Company's pipeline system integrity. The Lower Action Level may be set at concentration levels equal or greater than the Trigger Level.

<sup>3</sup> Acid-producing Bacteria [APB], Sulfate-reducing Bacteria [SRB], and Iron-oxidizing Bacteria [IOB]

RULE NO. 22

BIOMETHANE GAS  
(Continued)

B. BIOMETHANE GAS SPECIFICATIONS (Continued)

5. Biomethane Gas must conform to the requirements listed in Table 2 below:

Table 2 Total Potential Risk from Carcinogenic and Non-Carcinogenic Health Protective Constituents			
Risk Management Levels	Risk from Carcinogenic Constituents	Hazard Index from Non-Carcinogenic Constituents	Action
Trigger Level <sup>1</sup>	≥1.0	≥0.1	Periodic Testing Required
Lower Action Level <sup>2</sup>	≥10.0	≥1.0	Biomethane Gas supply shut-in after three exceedances in 12 months
Upper Action Level <sup>3</sup>	≥25.0	≥5.0	Immediate Biomethane Gas supply shut-in

<sup>1</sup> Applies to individual Constituent concentrations  
<sup>2</sup> Applies to the sum of all Constituent concentrations over the Trigger Level.  
<sup>3</sup> Applies to individual Constituent concentrations or to the sum of all Constituent concentrations over the Trigger Level.

6. Source-specific Biomethane Gas Testing shall vary based on the source of the Biomethane Gas:

- a. Biomethane Gas supplied by landfills shall be tested for all 17 Health and Pipeline Integrity Protective Constituents.
- b. Biomethane Gas supplied by dairies shall be tested for Ethylbenzene, Hydrogen Sulfide, n-Nitroso-di-n-propylamine, Mercaptans, Toluene and all Pipeline Integrity Protective Constituents.
- c. Biomethane Gas supplied by publicly owned treatment works (water and sewage treatment plants) and other sources of Biomethane Gas shall be tested for p-Dichlorobenzene, Ethylbenzene, Hydrogen Sulfide, Mercaptans, Toluene, Vinyl Chloride, and all Pipeline Integrity Protective Constituents.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING

1. Pre-Injection Testing

- a. Prior to the injection of Biomethane Gas, the Biomethane Gas supplier shall conduct two tests over a two to four week period for the Constituents identified for that Biomethane Gas source in Section B.5 of this Rule.
- b. Testing will be performed by the Biomethane Gas supplier using independent certified third party laboratories. The Company shall be notified of the Biomethane Gas sampling and tests and have the option to observe the samples being taken. Test results will be shared with the Company within five (5) calendar days of the test results being received by the Biomethane Gas supplier.
- c. If during pre-injection testing Health Protective Constituents are found at or above the Trigger Level, the Biomethane Gas' total potential cancer risk or non-cancer risk must be calculated. The total potential cancer risk or non-cancer risk is the sum of all Health Protective Constituent concentrations above the Trigger Level. If the total potential cancer risk or non-cancer risk is at or above the Lower Action Level (the cancer risk Lower Action Level is  $\geq 10$  in a million and the non-cancer risk Lower Action Level is a hazard index of  $\geq 1$ ), the Biomethane Gas cannot be injected into the Company's pipeline system. The Biomethane Gas supplier shall make necessary modifications to lower the total potential cancer risk or non-cancer risk below the Lower Action Level and restart pre-injection testing.
- d. If during pre-injection testing the Health Protective Constituents' total potential cancer risk and non-cancer risk are found to be below the Lower Action Level, the Biomethane Gas may be injected into the Company's pipeline system subject to all other requirements set forth in this Rule.

RULE NO. 22

BIOMETHANE GAS

*(Continued)*

C. BIOMETHANE GAS TESTING *(Continued)*

1. Pre-Injection Testing *(Continued)*

- e. If during pre-injection testing Pipeline Integrity Protective Constituents are found at or above levels equivalent to the Lower Action Level, the Biomethane Gas may not be injected into the Company's pipeline system. The Biomethane Gas supplier shall make necessary modifications to lower the levels of the Pipeline Integrity Protective Constituents to levels below the Lower Action Level equivalent and restart pre-injection testing.
- f. If during pre-injection testing Pipeline Integrity Protective Constituents are found below levels equivalent to the Lower Action Level, the Biomethane Gas may be injected into the Company's pipeline system subject to all other requirements set forth in this Rule.

2. Periodic Testing

a. Group 1 Constituents

- (i) Group 1 Constituents shall be tested once every 12 month period in which injection of Biomethane Gas occurs.
- (ii) Any Group 1 Constituent with a concentration below the test detection level or below the Trigger Level during two (2) consecutive annual periodic tests shall be tested once every two-year period in which injection of Biomethane Gas occurs.

b. Group 2 Constituents

- (i) Group 2 Constituents shall be tested quarterly (at least once every three (3) month period in which Biomethane Gas injection occurs).

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

(ii) Individual Health Protective Constituents

If the quarterly testing demonstrates that any Group 2 Constituent is below the Trigger Level four (4) consecutive times, monitoring for that Constituent can be reduced to once every 12 month period in which Biomethane Gas injection occurs.

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

If any Constituent is above the Upper Action Level, the Biomethane Gas cannot be injected into the pipeline until the concentration level is below the Lower Action Level.

(iii) Total potential risk for Carcinogenic and Non-Carcinogenic Health Protective Constituents

(a) Cancer Risk

The potential cancer risk for Group 2 compounds can be estimated by summing the individual potential cancer risk for each carcinogenic Constituent. Specifically, the cancer risk can be calculated using the ratio of the concentration of the Constituent in the Biomethane Gas 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, pg. 67).

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

2. Periodic Testing (Continued)

b. Group 2 Constituents (Continued)

(iii) Total potential risk for Carcinogenic and Non-Carcinogenic Health Protective Constituents (Continued)

Non-Cancer Risk

The non-cancer risk can be calculated using the ratio of the concentration of the Constituent in Biomethane Gas to the health protective concentration value corresponding to a hazard quotient of 0.1 for that specific noncarcinogenic Constituent, then multiplying the ratio by 0.1, and then summing the noncancer chronic risk for these Group 2 Constituents. (for reference, see CARB/OEHHA Report, p. 67).

(b) If the total potential risk from Carcinogenic or Non-Carcinogenic Health Protective Constituents is found at or above the Lower Action Level three (3) times in a 12 month period, the Biomethane Gas supplier shall be shut-in and subject to the Biomethane Gas Restart Procedures set forth in Section C.4 of this Rule.

(c) If quarterly testing over a 12 month period demonstrates that the total potential risk from Carcinogenic or Non-Carcinogenic Health Protective Constituents is below the Lower Action Level, monitoring can be reduced to once every 12 month period in which Biomethane Gas injection occurs for each Constituent in the group.



RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

2. Periodic Testing (Continued)

b. Group 2 Constituents (Continued)

(iii) Total potential risk for Carcinogenic and Non-Carcinogenic Health Protective Constituents (Continued)

(d) If annual periodic testing demonstrates that the total potential risk from Carcinogenic or Non-Carcinogenic Health Protective Constituents is at or above the Lower Action Level, then testing for the Carcinogenic or Non-Carcinogenic Health Protective Constituents will revert to quarterly.

(e) If the total potential risk from Carcinogenic or Non-Carcinogenic Health Protective Constituents is at or above the Upper Action Level (the cancer risk Upper Action Level is  $\geq 25$  in a million and the non-cancer risk Upper Action Level is a hazard index of  $\geq 5$  as noted in Table 2 of this Rule), the Biomethane Gas shall be shut-in and subject to the Biomethane Gas Restart Procedures set forth in Section C.4 of this Rule.

(f) If the Biomethane Gas is not accepted into the Company's system in accordance with the requirements set forth in this Rule, testing for all Group 1 and Group 2 Constituents will be subject to the Biomethane Gas Restart Procedures set forth in Section C.4 of this Rule.

c. When a Pipeline Integrity Protective Constituent is found at or above levels equivalent to the Lower Action level three times in a 12 month period, the Biomethane Gas shall be shut-in and subject to the Biomethane Gas Restart Procedures set forth in Section C.4 of this Rule.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

3. Continuous Monitoring of Upgrading Process Integrity

Absent an agreement otherwise, the Biomethane Gas supplier's compliance with the specifications set forth in this Rule and the Company's Rule No. 21, Transportation of Customer-Secured Natural Gas, shall be used as an indicator that the upgrading system is effectively conditioning and upgrading the Biomethane Gas. If the continuous monitoring indicates that the Biomethane Gas has not been adequately or sufficiently conditioned and upgraded, the Company may accelerate the periodic testing schedule and initiate testing. Accelerated periodic testing shall count toward the recommended periodic testing requirements described herein.

4. Biomethane Gas Restart Procedures

a. Health Protective Constituents

Under Biomethane Gas restart procedures, the Biomethane Gas supplier will perform an initial test. If the test determines the total potential risk for Carcinogenic and Non-Carcinogenic Health Protective Constituents is below the Lower Action Level, injection can resume subject to periodic testing requirements set forth in Section C.2 of this Rule and shall be reevaluated by the Company for eligibility for less frequent testing. Restart procedures shall be initiated for all Health Protective Constituents when any of the following occurs:

- (i) A change in the Biogas source at the facility or the upgrading equipment design that the Commission, in consultation with ARB and OEHHA, determines will potentially increase the level of any Health Protective Constituent over the previously measured baseline levels.
- (ii) A shut-off of Biomethane Gas to the Company pipeline occurs because testing indicates a total potential risk for a Carcinogenic or Non-Carcinogenic for an individual Health Protective Constituent exceeds the Lower Action Level three (3) times in a 12 month period.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

4. Biomethane Gas Restart Procedures (Continued)

a. Health Protective Constituents (Continued)

- (iii) A shut-off of Biomethane Gas to the Company pipeline occurs because a Health Protective Constituent concentration or the total potential risk for a Carcinogenic or Non-Carcinogenic Constituent is above the Upper Action Level.

After Biomethane Gas supply has restarted, periodic testing for all Group 1 and Group 2 Constituents will be performed as set forth in Section C.2 of this Rule.

b. Pipeline Integrity Protective Constituents

Under Biomethane Gas restart procedures, the Biomethane Gas supplier will perform an initial test. If the test determines the Pipeline Integrity Protective Constituents are below levels equivalent to the Lower Action Level, injection can resume subject to periodic testing requirements set forth in Section C.2 of this Rule and shall be reevaluated by the Company for eligibility for less frequent testing.

5. Testing Procedures

The Company will collect samples at the receipt point. Biomethane Gas suppliers will collect samples upstream of the Company meter. Samples will be analyzed by independent certified third party laboratories. Testing for Health Protective Constituents shall be by the methods specified in Table V-4, pg. 66, of the CARB/OEHHA Report. Testing for Pipeline Integrity Protective Constituents shall be the methods approved in D.14-01-034. Retesting shall be allowed to verify and validate the results. The cost of retesting shall be borne by the entity requesting the retest.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

C. BIOMETHANE GAS TESTING (Continued)

6. Recordkeeping and Reporting Requirements

Recordkeeping and reporting will be performed in accordance with the requirements set forth in D.14-01-034 and as specified in the CARB/OEHHA Report.

7. This Rule does not prohibit the Company from engaging in discretionary gas or facility testing on its system. The Biomethane Gas supplier will not be financially responsible for Company discretionary testing.

D. PROHIBITION OF BIOMETHANE GAS FROM HAZARDOUS WASTE LANDFILLS

1. Biomethane Gas from hazardous waste landfills, including landfills permitted by the Department of Toxic Substances Control, will not be purchased, accepted or transported.
2. Before a Biomethane Gas supplier can interconnect with the Company's pipeline system, the Biomethane Gas supplier must demonstrate that the Biogas was not collected from a landfill that is or was designated a hazardous waste landfill.

E. OPEN ACCESS TO INTERCONNECTION OF BIOMETHANE GAS SUPPLY

The Company shall provide non-discriminatory open access to its pipeline system to any Biomethane Gas supplier for the purpose of physically interconnecting with the Company's pipeline system and effectuating the delivery of Biomethane Gas into the Company's pipeline system. This open access to the Company's system is subject to the terms and conditions set forth in this Rule. None of the provisions in this Rule shall be interpreted to unduly discriminate against or in favor of Biomethane Gas or any other gas supplies coming from any source. Nothing in this Rule shall be interpreted as creating a requirement that the Company purchase any Biomethane Gas.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

E. OPEN ACCESS TO INTERCONNECTION OF BIOMETHANE GAS SUPPLY  
(Continued)

1. Interconnection Terms of Access

The Company will perform interconnection-related work under the following conditions:

- a. The interconnection and physical flow of Biomethane Gas supply can be received into the Company's existing system in so far that it does not jeopardize the integrity or normal operation of the Company's system and without adversely affecting service to the Company's end-use customers. The specific interconnection point(s) will be determined by the Company.
- b. The maximum capacity for Biomethane Gas received into the Company's system at the interconnection point(s) will be determined by the size of the facilities and the Company's ability to redeliver the Biomethane Gas supply downstream of the interconnection point(s), including the metering and odorization capacities. The maximum capacity for Biomethane Gas received into the Company's system at any specific interconnection point is not the capacity of the Company's pipeline system to transport gas away from that interconnection point and is not, nor is it intended to be, any commitment by the Company of any takeaway capacity. The Company separately provides takeaway services, including the option to expand system capacity to increase takeaway services, through its otherwise applicable tariffs.
- c. The available capacity for a supplier of Biomethane Gas to deliver gas into the Company's system may, on any particular day, be affected by physical flows from other points of receipt, physical pipeline capacity, storage conditions, daily pipeline operating conditions, and end-use demand on the Company's system.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

E. OPEN ACCESS TO INTERCONNECTION OF BIOMETHANE GAS SUPPLY  
(Continued)

1. Interconnection Terms of Access (Continued)

- d. The Biomethane Gas supplier shall pay all costs associated with required capacity or engineering studies, engineering, and construction of facilities on the Company's side of the interconnection point(s) necessary to receive the Biomethane Gas. Such costs may include, but are not limited to, taps, valves, piping, measuring equipment, odorizing equipment, land rights, permits, and communication equipment. The Biomethane Gas supplier shall pay for all changes to the Company's technology systems, if any, required to modify those systems to receive and account for a supplier's Biomethane Gas. The Company shall own and operate all facilities on the Company's side of the interconnection point(s). All contributions provided by the Biomethane Gas supplier are subject to ITCCA as set forth in Preliminary Statement 13 of this California Gas Tariff.
- e. The Biomethane Gas supplier shall execute a standard agreement, which shall contain a description of all work to be performed by the Company, as well as the costs and payment terms to be made by the Biomethane Gas supplier to the Company.
- f. The Biomethane Gas supplier, at its expense, shall obtain all land rights, easements, permits and/or other authorizations, and shall design and construct the piping, valves, filter separators, and other equipment that is required at the interconnection point(s) to effectuate deliveries of the Biomethane Gas to the Company, in accordance with sound and prudent industry practices and complies with all applicable laws, rules, and regulations of any authority having jurisdiction.
- g. The Biomethane Gas supplier shall install and maintain in good working condition the necessary pressure regulation or compression and flow equipment to effectuate delivery of Biomethane Gas to the interconnection point(s) at or above the prevailing pressure in the Company's pipeline. The Biomethane Gas supplier's equipment shall be designed and installed to protect the Company's pipeline from exposure to pressures in excess of the Company's then current maximum operating pressure at the interconnection point(s).

RULE NO. 22

BIOMETHANE GAS  
(Continued)

E. OPEN ACCESS TO INTERCONNECTION OF BIOMETHANE GAS SUPPLY  
(Continued)

1. Interconnection Terms of Access (Continued)

- h. The Biomethane Gas supplier shall comply with the Company's Tariff, including but not limited to nominations procedures, unless otherwise identified and written in an agreement between the supplier and the Company.
- i. The Biomethane Gas supplier and the Company shall execute an operating and/or other necessary agreement(s) prior to the final interconnection and the commencement of Biomethane Gas flowing into the Company's system.

2. Interconnection Capacity Studies

- a. Any Biomethane Gas supplier may request an Interconnection Capacity Study to determine the Company's downstream capability to take Biomethane Gas away from an interconnection point, or proposed interconnection point, and the associated Company facility enhancement costs, if any. Upon the request of an entity to establish or increase takeaway capacity from a receipt point, the Company will make a timely determination of the facilities, any required modifications and associated costs that are required to add the requested takeaway capacity. The Company shall make this determination on a nondiscriminatory and transparent basis, without favoring any region or entity within its territory.
- b. All analyses shall take into consideration new supplies and facilities that have been or may be installed pursuant to previously executed agreements. Priority for purposes of determining facility costs will be established on the basis of the date a Biomethane Gas supplier executes a formal request. The request shall include the activities from initial study through construction under terms that are mutually agreeable to the Company and the Biomethane Gas supplier.

RULE NO. 22

BIOMETHANE GAS  
(Continued)

E. OPEN ACCESS TO INTERCONNECTION OF BIOMETHANE GAS SUPPLY  
(Continued)

3. Interconnection Engineering Studies

- a. The Company will prepare a Detailed Engineering Study upon formal written request and receipt of payment for estimated charges from any Biomethane Gas supplier. A Detailed Engineering Study includes a description of all costs of construction, complete engineering construction drawings, and all construction, environmental permit applications, and right-of-way acquisition requirements.
- b. The Biomethane Gas supplier and the Company will execute an agreement prior to any work being completed on the Detailed Engineering Study and the Biomethane Gas supplier will provide payment equal to the estimated cost prior to the Company proceeding with the study. The Biomethane Gas supplier will be responsible for all actual costs of the analysis; an invoice or refund will be issued by the Company to the supplier at the completion of the analysis for any difference between the actual costs and the estimate.