

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



August 27, 2008

Advice Letter 2846-G/3075-E

Brian K. Cherry  
Vice President, Regulatory Relations  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, CA 94177

Subject: ClimateSmart Manure Management Project Reporting Protocol in  
Compliance with Decision 06-12-032

Dear Mr. Cherry:

Advice Letter 2846-G/3075-E is approved as modified by Resolution G-3410, effective  
June 12, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean H. Gallagher".

Sean H. Gallagher, Director  
Energy Division

June 27, 2007

**Advice 2846-G/3075-E**

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

**Subject:** ClimateSmart<sup>™</sup> Manure Management Project Reporting Protocol in  
Compliance with Decision 06-12-032

**Purpose**

Pacific Gas and Electric Company (PG&E) hereby submits for filing an advice letter seeking permission to contract for manure management projects through its ClimateSmart program. This advice letter is submitted in compliance with Ordering Paragraphs 29 and 30, which require PG&E to file an advice letter “seeking blanket permission to enter into contracts” for new protocols, of California Public Utilities Commission Decision (CPUC) Decision (D.) 06-12-032.

**Background**

In January 2006, PG&E filed Application (A.) 06-01-012 proposing a Climate Protection Tariff Program (now titled ‘ClimateSmart’) that would allow customers to neutralize the greenhouse gas (GHG) emissions associated with their energy use by paying an additional amount on their PG&E bill. The CPUC approved, with modifications, PG&E’s proposed program on December 14, 2006 through D.06-12-032 (Decision).

In A.06-01-012, PG&E stated that it would only fund projects certified under the California Climate Action Registry (the Registry) reporting protocols. In addition, PG&E expressed interest in expanding the program as additional protocols are developed and identified manure management projects to reduce methane emissions by capturing and combusting such emissions as a future project of interest.<sup>1</sup>

In the Decision, the CPUC agreed with PG&E and Agricultural Energy Consumers’ Association (AECA) that manure management projects were of future interest, as methane is at least 21 times “more potent a GHG than carbon dioxide (CO<sub>2</sub>) and

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<sup>1</sup> A.06-01-012, page 2-6

thus more cost effective on a per-ton CO<sub>2</sub> basis”<sup>2</sup>. In response to concerns from The Utility Reform Network (TURN) relating to the potential for double counting the value of biogas (manure) electricity generation if the same environmental attributes are being sold to two distinct buyers<sup>3</sup>, the CPUC required that any new ClimateSmart GHG emission reduction projects demonstrate additionality to prevent any form of double counting of emissions reductions. The CPUC also ordered PG&E to file an advice letter if it wished to contract for manure management projects, and to demonstrate that such projects will be “additional”<sup>4</sup>.

On June 19, 2007, the Registry released a protocol for Manure Management Projects. PG&E seeks to solicit projects that will certify their Biogas Control Systems under the new Registry protocol. Accordingly, PG&E files this advice letter in compliance with the CPUC’s order to request “blanket permission to enter into contracts” for manure management projects.

### **Discussion of Protocol**

The Registry’s Manure Management Project Reporting Protocol<sup>5</sup> provides guidance to account for and report GHG emissions reductions associated with installing a Biogas Control System for livestock operations, such as dairy cattle and swine farms. The additionality of the projects are measured by a Performance Standards Test<sup>6</sup>, which ensures that all projects meet a minimum performance standard, and a Regulatory Standards Test<sup>7</sup>, which ensures that previous regulations do not require the use of Biogas Control Systems and that projects meet applicable air and water quality standards. The protocol also states that the reduction of methane emissions is to be the primary impact of the project, while reduction of carbon dioxide and nitrous oxide emissions are considered secondary impacts.

In order to qualify for the Registry certified GHG emission reductions, projects must be certified under the Registry’s Manure Management Project Reporting Protocol. The protocol states that the “[p]rojects that install biogas control systems have the potential to support renewable energy generation. [The Registry] encourages project developers to install systems capable of using the captured biogas for energy production....Regardless of the method used to take advantage of the captured biogas, the ultimate fate of the methane must be combustion.”<sup>8</sup> In addition to the stringent requirements of the Registry protocol, PG&E will require all ClimateSmart projects to provide evidence that but for ClimateSmart funds, the

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<sup>2</sup> D.06-12-032, page 39

<sup>3</sup> Ibid, page 41

<sup>4</sup> Ibid, Ordering Paragraphs 29 and 30.

<sup>5</sup> [http://www.climateregistry.org/docs/PROTOCOLS/CA\\_Registry\\_Manure\\_Management\\_Project\\_Reporting\\_Protocol\\_DRAFT.pdf](http://www.climateregistry.org/docs/PROTOCOLS/CA_Registry_Manure_Management_Project_Reporting_Protocol_DRAFT.pdf)

<sup>6</sup> Registry Manure Management Project Reporting Protocol, Section III, page 3

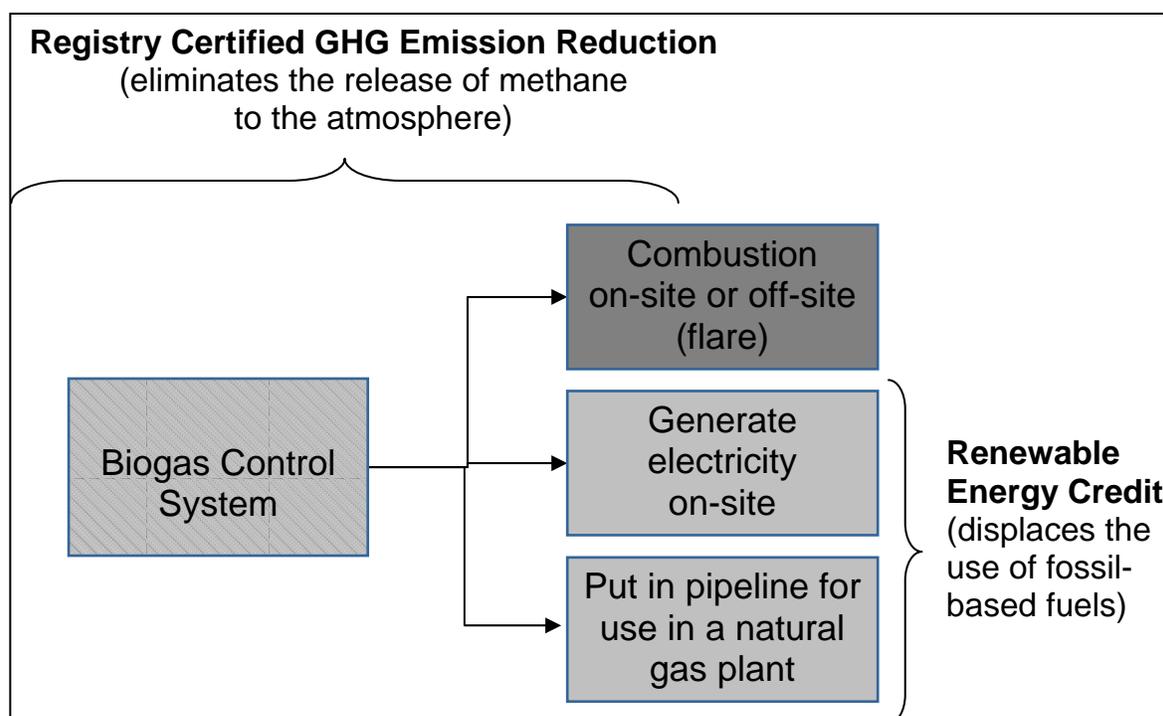
<sup>7</sup> Ibid, page 4

<sup>8</sup> Ibid, page 3

project that generates the Registry certified GHG emission reduction would not have occurred.

Prior to the release of the Registry protocol, TURN and the CPUC raised concerns relating to a possible double counting of the “value of the biogas (manure) electricity generation if the same environmental attributes are being sold to two distinct buyers”<sup>9</sup>.

There are two distinct steps and capital investments to consider in the creation of an environmental attribute or an emissions reduction from a Biogas Control System<sup>10</sup>: (1) the capture and the combustion of the methane which converts the methane into a far less potent greenhouse gas – CO<sub>2</sub>, and (2) the use of the combusted methane to produce renewable electricity in a manner that displaces the use of fossil-based fuels.



The first step is the capture and combustion of the methane by the Biogas Control System. The capture will always occur as a part of the Biogas Control System, but the combustion can occur at such facility or offsite. Methane emissions are generated by the natural decomposition of manure. The current practice is to store this manure in open lagoons. To capture this methane, Biogas Control Systems collect the manure by flushing, scraping, or vacuuming it into a holding tank. It is then screened to remove debris, and transferred into a mix tank, where

<sup>9</sup> D.06-12-032, page 41.

<sup>10</sup> Ibid, Section II, page 2.

it is mixed with water and kept in constant suspension.<sup>11</sup> This sludge is then fed into the digester, which is an airtight vessel that can range in design from a covered earthen lagoon to a steel tank. As the sludge digests, methane flows up into the digester gas line. In most applications, the methane will be flared (i.e. combusted) and will not be used to generate electricity.

The capture and combustion of the methane avoids its emission to the atmosphere. This process has the net effect of lowering GHG emissions as methane has at least 21 times the global warming potential of carbon dioxide. Capturing and combusting methane is the subject of the protocol and are the basis for certification by the Registry as a Registry certified GHG emission reduction.

The capturing and combusting of methane is distinct from a subsequent step of using the combustion of the methane to generate electricity. In the second step, a Biogas Control System may install additional equipment to combust the methane in a manner to generate electricity at the place of capture or process the captured methane for shipment in a gas pipeline, which is subsequently combusted to generate electricity. To use the methane to generate electricity, it must first be scrubbed to remove impurities and meet the gas quality specifications required for use in a generator or delivery into the gas pipeline. If a generator is used to send its total or excess electric generation to the power grid, it must be interconnected in accordance with the applicable interconnection standards. If the methane is injected into the gas pipeline, it must first be compressed. A gas meter at the pipeline tap records the amount of gas delivered to the pipeline. The investments needed to generate electricity are significant and additional to those needed to capture and combust the methane.

The effect of the generation of electricity from the combusted methane is a displacement of the use of fossil-based fuels that would have occurred if the combusted methane had not been used to generate electricity. This second step of using the combusted methane to generate electricity and the resulting displacement of fossil-based fuels is the basis for its inclusion in a Renewable Energy Credit (REC)<sup>12</sup>.

Both capturing the methane in a Biogas Control System and generating electricity require significant capital funding in order to occur.

Because the first step of a Biogas Control System to capture and combust methane is separate and distinct both physically and financially from the second step of generating electricity and the resulting displacement of fossil-based fuels, the benefits that these two processes create, the Registry certified GHG emission

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<sup>11</sup> Burke, Dennis A. *Dairy Waste Anaerobic Digestion Handbook: Programs for Recovering Beneficial Products from Dairy Manure*. Environmental Energy Company, June 2001.  
<http://www.makingenergy.com/Dairy%20Waste%20Handbook.pdf>

<sup>12</sup> Renewable Energy Credit has the meaning set forth in the California Public Utilities Code Section 399.12(g). See [reference CPUC order approving these processes for biogas facilities] and California Energy Commission Renewables Portfolio Standard Eligibility Guidebook, pp. 22-23 (2nd ed., Mar, 2007).

reduction and the REC, are also separate and distinct. "Double-counting" does not occur because the renewable electricity generation requires a separate investment and creates a different environmental benefit from the emission reduction of methane capture and combustion. The reduction of the GHG emission is only counted as the Registry certified GHG emission reduction created in the first step. The REC is only generated when the combustion of methane displaces the use of fossil-based fuels to generate electricity.

Accordingly, PG&E has satisfied that double counting of the environmental attributes does not exist. There are two different capital investments which generate the two different environmental attributes.

### **Protests**

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **July 17, 2007**, which is 20 days after the date of this filing. Protests should be mailed to:

CPUC Energy Division  
Tariff Files, Room 4005  
DMS Branch  
505 Van Ness Avenue  
San Francisco, California 94102

Facsimile: (415) 703-2200  
E-mail: [anj@cpuc.ca.gov](mailto:anj@cpuc.ca.gov) and [mas@cpuc.ca.gov](mailto:mas@cpuc.ca.gov)

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

Brian K. Cherry  
Vice President, Regulatory Relations  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, California 94177

Facsimile: (415) 973-7226  
E-mail: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

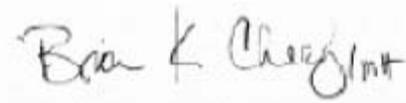
### **Effective Date**

PG&E requests that this advice filing become effective on regular notice, **July 27, 2007**, which is 30 calendar days after the date of filing.

**Notice**

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties for Service List Application (A.) 06-01-012. Address changes to the General Order 96-A service list should be directed to Rose de la Torre at (415) 973-4716. Advice letter filings can also be accessed electronically at:

**<http://www.pge.com/tariffs>**



Vice President, Regulatory Relations

Attachments

cc: Service List A.06-01-012

# 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. **Pacific Gas and Electric Company (ID U39)**

Utility type:

ELC       GAS  
 PLC       HEAT       WATER

Contact Person: Megan Hughes

Phone #: (415) 973-1877

E-mail: mehr@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas  
PLC = Pipeline      HEAT = Heat      WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **2846-G/3075-E**

Subject of AL: ClimateSmart™ Manure Management Project Reporting Protocol in Compliance with Decision 06-12-032

Keywords (choose from CPUC listing): Compliance, Contracts

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D.06-12-032

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL<sup>1</sup>: \_\_\_\_\_

Resolution Required?  Yes  No

Requested effective date: **July 27, 2007**

No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

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: N/A

Service affected and changes proposed<sup>1</sup>: N/A

Pending advice letters that revise the same tariff sheets: N/A

**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  
Tariff Files, Room 4005  
DMS Branch  
505 Van Ness Ave.,  
San Francisco, CA 94102  
njn@cpuc.ca.gov and mas@cpuc.ca.gov**

**Pacific Gas and Electric Company  
Attn: Brian K. Cherry  
Vice President, Regulatory Relations  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, CA 94177  
E-mail: PGETariffs@pge.com**

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

**PG&E Gas and Electric  
Advice Filing List  
General Order 96-B, Section IV**

ABAG Power Pool	Douglass & Liddell	PG&E National Energy Group
Accent Energy	Downey, Brand, Seymour & Rohwer	Pinnacle CNG Company
Aglet Consumer Alliance	Duke Energy	PITCO
Agnews Developmental Center	Duke Energy North America	Plurimi, Inc.
Ahmed, Ali	Duncan, Virgil E.	PPL EnergyPlus, LLC
Alcantar & Kahl	Dutcher, John	Praxair, Inc.
Ancillary Services Coalition	Dynergy Inc.	Price, Roy
Anderson Donovan & Poole P.C.	Ellison Schneider	Product Development Dept
Applied Power Technologies	Energy Law Group LLP	R. M. Hairston & Company
APS Energy Services Co Inc	Energy Management Services, LLC	R. W. Beck & Associates
Arter & Hadden LLP	Exelon Energy Ohio, Inc	Recon Research
Avista Corp	Exeter Associates	Regional Cogeneration Service
Barkovich & Yap, Inc.	Foster Farms	RMC Lonestar
BART	Foster, Wheeler, Martinez	Sacramento Municipal Utility District
Bartle Wells Associates	Franciscan Mobilehome	SCD Energy Solutions
Blue Ridge Gas	Future Resources Associates, Inc	Seattle City Light
Bohannon Development Co	G. A. Krause & Assoc	Sempra
BP Energy Company	Gas Transmission Northwest Corporation	Sempra Energy
Braun & Associates	GLJ Energy Publications	Sequoia Union HS Dist
C & H Sugar Co.	Goodin, MacBride, Squeri, Schlotz &	SESCO
CA Bldg Industry Association	Hanna & Morton	Sierra Pacific Power Company
CA Cotton Ginners & Growers Assoc.	Heeg, Peggy A.	Silicon Valley Power
CA League of Food Processors	Hitachi Global Storage Technologies	Smurfit Stone Container Corp
CA Water Service Group	Hogan Manufacturing, Inc	Southern California Edison
California Energy Commission	House, Lon	SPURR
California Farm Bureau Federation	Imperial Irrigation District	St. Paul Assoc
California Gas Acquisition Svcs	Integrated Utility Consulting Group	Sutherland, Asbill & Brennan
California ISO	International Power Technology	Tabors Caramanis & Associates
Calpine	Interstate Gas Services, Inc.	Tecogen, Inc
Calpine Corp	IUCG/Sunshine Design LLC	TFS Energy
Calpine Gilroy Cogen	J. R. Wood, Inc	Transcanada
Cambridge Energy Research Assoc	JTM, Inc	Turlock Irrigation District
Cameron McKenna	Luce, Forward, Hamilton & Scripps	U S Borax, Inc
Cardinal Cogen	Manatt, Phelps & Phillips	United Cogen Inc.
Cellnet Data Systems	Marcus, David	URM Groups
Chevron Texaco	Matthew V. Brady & Associates	Utility Resource Network
Chevron USA Production Co.	Maynor, Donald H.	Wellhead Electric Company
City of Glendale	MBMC, Inc.	White & Case
City of Healdsburg	McKenzie & Assoc	WMA
City of Palo Alto	McKenzie & Associates	
City of Redding	Meek, Daniel W.	
CLECA Law Office	Mirant California, LLC	
Commerce Energy	Modesto Irrigation Dist	
Constellation New Energy	Morrison & Foerster	
CPUC	Morse Richard Weisenmiller & Assoc.	
Cross Border Inc	Navigant Consulting	
Crossborder Inc	New United Motor Mfg, Inc	
CSC Energy Services	Norris & Wong Associates	
Davis, Wright, Tremaine LLP	North Coast Solar Resources	
Defense Fuel Support Center	Northern California Power Agency	
Department of the Army	Office of Energy Assessments	
Department of Water & Power City	OnGrid Solar	
DGS Natural Gas Services	Palo Alto Muni Utilities	