

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298

Tel. No. (415) 703-1691



December 8, 2008

Advice Letter 2939-G\G-A\3299-E\E-A

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 Program Purchase of Verified Emission Reductions Under the  
Landfill Project Reporting Protocol in Compliance with D. 06-12-032

Dear Mr. Cherry:

Advice Letter 2939-G\G-A\3299-E\E-A is effective December 8, 2008.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kenneth Lewis".

Kenneth Lewis, Acting Director  
Energy Division



**Brian K. Cherry**  
Vice President  
Regulatory Relations

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July 22, 2008

**Advice 2939-G/3299-E**

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

**Subject: ClimateSmart™ Program Purchase of Verified Emission Reductions Under the Landfill 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 landfill gas verified emission reduction projects through its ClimateSmart program. This advice letter is submitted in accordance with Decision (D.) 06-12-032, Ordering Paragraph 30, which requires PG&E to file an advice letter "seeking blanket permission to enter into contracts" for any new protocol.

The ClimateSmart program is mid-way through its three year authorization. Landfill gas emissions in California will be regulated<sup>1</sup> effective January 1, 2010, so currently-unregulated landfills have no incentive to reduce emissions now. Thus, the CPUC has a tremendous leadership opportunity at hand: encourage more greenhouse gas (GHG) emission reductions to occur as soon as possible by expeditiously authorizing the ClimateSmart program to purchase GHG emission reductions from the landfill gas sector on behalf of our ClimateSmart customers before January 2010. PG&E respectfully requests that the CPUC approve this advice letter by September 18, 2008, so that the program can include landfill gas in the next ClimateSmart Request for Proposals, scheduled for September 2008.

In Resolution G-3410 on June 12, 2008, the Commission approved PG&E's request to contract for manure management projects through its ClimateSmart program. In authorizing the manure management projects, CPUC President Michael Peevey stated that "[b]y expanding the portfolio of offset projects eligible to receive ClimateSmart funds to include manure management projects, today's decision will enable dairy farmers and other livestock operators to transform a waste stream into a revenue stream, benefiting both their bottom line and the environment."<sup>2</sup>

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<sup>1</sup> On June 21, 2007, the California Air Resources Board (ARB) approved the Landfill Methane Capture Strategy as an early action measure. Under the California Global Warming Solutions Act of 2006 (Health and Safety Code section 38560(a)), early action measures are to be developed into regulatory proposals, adopted by the ARB, and made enforceable by January 1, 2010.

<sup>2</sup> CPUC Press Release, *CPUC APPROVES BIOGAS MANAGEMENT PROJECT FOR PG&E*, June 12, 2008.

The landfill projects covered by this advice letter are similar in nature to manure management projects in that both types of projects capture and combust methane from waste streams in order to reduce GHG emissions. One major difference is that due to expected regulation<sup>3</sup> of California landfill emissions in 2010, the ClimateSmart program has a limited window of opportunity to give landfills the incentive to reduce emissions even earlier by purchasing GHG emission reductions from landfill projects that occur prior to 2010. For this reason it is crucial that PG&E be given the opportunity to contract for these projects on behalf of our ClimateSmart customers. If the ClimateSmart program can begin soliciting landfill projects before 2009, it may prevent us from permanently losing the opportunity to purchase GHG emission reductions from any qualified California-based project.

### **Background**

In January 2006, PG&E filed Application (A.) 06-01-012 proposing a Climate Protection Tariff Program (now titled the ClimateSmart program) that would allow customers to offset the 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 California-based projects verified 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 for other emission reduction project categories that might be shown to generate verifiable and cost-effective GHG reductions as future projects of interest.<sup>4</sup>

In the Decision, the CPUC agreed with PG&E that additional approved protocols were of interest. The capture of methane is of particular interest, as methane is at least 21 times more potent a GHG than carbon dioxide (CO<sub>2</sub>) and thus more cost effective to reduce on a per-ton basis.<sup>5</sup> The CPUC ordered PG&E to file an advice letter if it wished to contract for projects under any new types of protocols, and to demonstrate that such projects will be "additional" and pose no double counting problem.<sup>6</sup> Resolution G-3410 granted PG&E permission to contract for manure management projects that capture methane after demonstrating that those projects would be additional and pose no double-counting program. In addition, Resolution G-3410 rendered the double-counting discussion moot and reaffirmed Section 399.12(h)(2) of the Public Utilities Code in finding that, "credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels are not included in a REC, regardless of what environmental attributes the Commission concludes are included in a REC in R.06-02-012."<sup>7</sup>

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<sup>3</sup> See fn 1.

<sup>4</sup> A.06-01-012, page 2-6.

<sup>5</sup> D.06-12-032, page 41

<sup>6</sup> Ibid, OP-30.

<sup>7</sup> Resolution E-3410, p.8

As mentioned in its Resolution G-3410, “the Commission expects PG&E to consider the suitability of alternative offset types as new protocols are developed and approved for use. Diversifying the list of eligible offset types is seen as a way to lessen the risk that projects may be unavailable to meet program needs as well as to provide opportunities for funding less costly projects.” On November 29, 2007, the Registry Board approved a protocol for landfill projects, which will also use methane capture technology to reduce GHG emissions. PG&E seeks to solicit projects that will verify their landfill gas 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 other types of projects.

### **Discussion of Protocol**

The Registry’s Landfill Project Reporting Protocol<sup>8</sup> provides guidance to account for and report GHG emissions reductions associated with installing a new methane gas collection system at a landfill. In the same fashion as the manure management projects, the additionality of Registry-verified landfill projects is measured by a Performance Standards Test<sup>9</sup> which ensures that all projects meet a minimum performance standard, and a Regulatory Standards Test<sup>10</sup> which ensures that previous regulations do not require the emission reductions and that the projects meet applicable air and water quality regulations.

In order to qualify for the Registry verified GHG emission reductions, projects must be verified under the Registry’s Landfill Project Reporting Protocol. The protocol states that the captured landfill gas could be “transported for off-site use (e.g., through gas distribution or transmission pipeline), or used to power vehicles. Regardless of how project developers take advantage of the captured gas, for the project to be eligible to register GHG reductions under this protocol, the ultimate fate of the methane must be combustion.”<sup>11</sup> In addition to the stringent requirements of the Registry protocol, PG&E will require, as it has done with its selection of forestry and manure management projects, all landfill projects to provide evidence that but for ClimateSmart program funds, the project that generates the Registry-verified GHG emission reduction would not have occurred.

There are currently 36 landfills<sup>12</sup> in the state of California that would potentially qualify under the Registry’s Landfill Project Reporting Protocol. Most of these are municipal landfills that are exempt from state and federal regulations until 2010,<sup>13</sup> and have not yet installed landfill gas capture systems. The ClimateSmart program will use the same test for additionality as was approved by the Commission for manure

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<sup>8</sup>[http://www.climateregistry.org/resources/docs/protocols/project/landfill/Landfill\\_Project\\_Reporting\\_Protocol\\_v1.0\\_Nov.07.pdf](http://www.climateregistry.org/resources/docs/protocols/project/landfill/Landfill_Project_Reporting_Protocol_v1.0_Nov.07.pdf)

<sup>9</sup> Registry Landfill Project Reporting Protocol, Section III, page 4

<sup>10</sup> Ibid, page 5

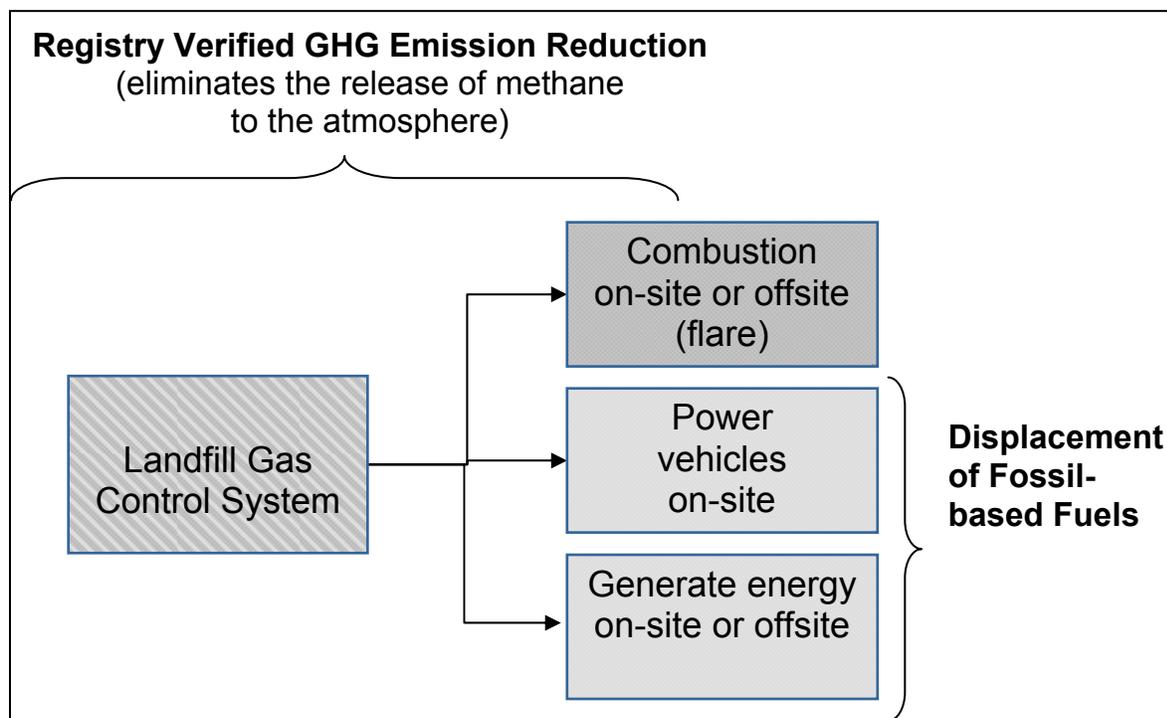
<sup>11</sup> Ibid, page 2

<sup>12</sup> According to information provided by the California Climate Action Registry.

<sup>13</sup> See fn. 4

management projects<sup>14</sup> for an eligible landfill that installs a landfill gas capture system to capture methane, requiring the landfill to further prove that the project would not have been possible at that time without ClimateSmart funding. That is, the revenues received by the landfill gas emission reduction seller are necessary to complete the financing of the project in advance of regulation. Evidence includes financial operating information: providing a financial plan for the use of the revenues paid to the seller by PG&E; showing that but for the payments by the ClimateSmart program the project would not have happened; demonstrating how the payments by the ClimateSmart program allow for the project to occur; and describing any other sources of project funding or loan guaranties.

As is the case for manure management methane projects, which were approved by the Commission<sup>15</sup>, there are two distinct steps and capital investments to consider in the creation of an environmental attribute or an emissions reduction from a landfill gas control system: (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 power vehicles or produce renewable energy in a manner that displaces the use of fossil-based fuels.



The first step is the capture and combustion of the methane by the landfill gas control system. Capturing the methane in a landfill gas collection system requires significant

<sup>14</sup> CPUC Resolution G-3410.

<sup>15</sup> Id.

capital funding in order to occur.<sup>16</sup> This is the only step that would be funded by the ClimateSmart program. The capture will always occur as a part of the landfill gas control system, but the combustion can occur at such facility or offsite. Landfill gas is produced by organic waste decomposing under anaerobic conditions in a landfill. The waste is covered and compressed mechanically and by the weight of the material that is deposited from above. This prevents oxygen from accessing the waste and causes anaerobic microbes to thrive. Methane gas builds up and is slowly released into the atmosphere if the landfill site has not been engineered to capture the gas. Landfill gas is extracted from landfills using a series of wells and a blower/flare (or vacuum) system.<sup>17</sup> The collected gas is directed by this system to a central point where it can be flared or further processed to power vehicles, generate electricity on-site or be upgraded to pipeline quality gas.

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 CO<sub>2</sub>. Capturing and combusting methane is the subject of the protocol and is the basis for verification by the Registry as a Registry-verified GHG emission reduction. This is the step that the ClimateSmart program would fund.

The capturing and combusting of methane is distinct from a subsequent step of using the combustion of methane to generate electricity or power vehicles. In the second step, a landfill gas control system may install additional equipment to power vehicles at the place of capture, generate electricity 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.<sup>18</sup> The generation of electricity or production of natural gas and the associated equipment would not be funded by the ClimateSmart program.

As with the Commission-approved manure management projects, the capture and combustion of landfill methane is separate and distinct both physically and financially

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<sup>16</sup> For a 5 million metric ton landfill, a sample landfill gas collection system was estimated to cost \$2,088,000 (in 1996 dollars). U.S. Environmental Protection Agency, Turning a Liability into an Asset: A Landfill Gas-to-Energy Project Development Handbook, September 1996, Table 5.3 p. 56, available at <http://www.epa.gov/lmop/res/pdf/handbook.pdf>.

<sup>17</sup> U.S. Environmental Protection Agency, Converting Landfill Gas to Energy, <http://www.epa.gov/lmop/overview.htm>

<sup>18</sup> Energy conversion system equipment and installation costs alone ranged from \$4,725,000-\$9,200,000 (in 1996 dollars) in a sample 5 million metric ton landfill gas project. U.S. Environmental Protection Agency, Turning a Liability into an Asset: A Landfill Gas-to-Energy Project Development Handbook, September 1996, Table 5.3 p. 56, available at <http://www.epa.gov/lmop/res/pdf/handbook.pdf>.

from the use of combusted methane to power vehicles or generate electricity. The benefits that these two processes create – the Registry verified GHG emission reduction and the fossil fuel displacement – are also separate and distinct. “Double-counting” does not occur because the fossil fuel displacement requires a separate investment and creates a different environmental benefit from the emission reduction of methane capture and combustion. The reduction of the GHG emissions is only counted by the Registry for the verified GHG emission reduction created in the first step and is the only part in which the ClimateSmart program will invest.

The Registry worked to develop the landfill protocol through a multi-stakeholder process that encouraged expert and public participation in developing project-specific protocols. Before being approved by the Registry, revised drafts were sent to industry, policy and academic experts for their input. In finalizing criteria for landfill projects to qualify under its protocol, the Registry ensured that these projects are additional and do not pose any double counting problems; PG&E concurs. Furthermore, before entering into contracts for verified emissions reductions, PG&E requires that all projects provide financial evidence that but for ClimateSmart program funds, the project that generates the Registry-verified GHG emission reductions would not have occurred. PG&E will use the same Commission-approved test for additionality for manure management projects in order to determine additionality for landfill projects.<sup>19</sup> As part of this determination, PG&E will ascertain that absent ClimateSmart program funding, the project would not have taken place in advance of regulation.

### **Shortened Protest Period (10 Days)**

Due to the time-sensitive nature of this project, PG&E requests a shortened protest period of 10 days. 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 **August 1, 2008**, which is 10 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: [jnj@cpuc.ca.gov](mailto:jnj@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.

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<sup>19</sup> CPUC Resolution G-3410.

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

### **Effective Date**

PG&E requests that this advice filing become effective on or before September 18, 2008.

### **Notice**

In accordance with General Order 96-B, Section IV, 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-B 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 M)**

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) #: 2939-G/3299-E

Tier: [2]

Subject of AL: ClimateSmart™ Program Purchase of Verified Emission Reductions Under the Landfill Project Reporting Protocol in Compliance With Decision 06-12-032

Keywords: compliance

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #:

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:

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Confidential information will be made available to those who have executed a nondisclosure agreement: N/A

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information:

Resolution Required?  Yes  No

Requested effective date: September 18, 2008

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:

Service affected and changes proposed:

Protests, dispositions, 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

jn@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

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

Aglet	Department of the Army	Northern California Power Association
Agnews Developmental Center	Dept of General Services	Occidental Energy Marketing, Inc.
Alcantar & Kahl	Division of Business Advisory Services	OnGrid Solar
Ancillary Services Coalition	Douglas & Liddell	PITCO
Anderson & Poole	Douglass & Liddell	PPL EnergyPlus, LLC
Arizona Public Service Company	Downey & Brand	Pinnacle CNG Company
BART	Duke Energy	Praxair
BP Energy Company	Duncan, Virgil E.	R. W. Beck & Associates
Barkovich & Yap, Inc.	Dutcher, John	RCS, Inc.
Bartle Wells Associates	Ellison Schneider & Harris LLP	RMC Lonestar
Blue Ridge Gas	Energy Management Services, LLC	Recon Research
Braun & Associates	FPL Energy Project Management, Inc.	SCD Energy Solutions
C & H Sugar Co.	Foster Farms	SCE
CA Bldg Industry Association	Foster, Wheeler, Martinez	SESCO
CAISO	Franciscan Mobilehome	SMUD
CLECA Law Office	G. A. Krause & Assoc.	SPURR
CSC Energy Services	GLJ Publications	Santa Fe Jets
California Cotton Ginners & Growers Assn	Goodin, MacBride, Squeri, Schlotz & Ritchie	Seattle City Light
California Energy Commission	Green Power Institute	Sempra Utilities
California League of Food Processors	Hanna & Morton	Sequoia Union HS Dist
California Public Utilities Commission	Heeg, Peggy A.	Sierra Pacific Power Company
California Water Company	Hitachi	Silicon Valley Power
Calpine	Hogan Manufacturing, Inc.	Smurfit Stone Container Corp
Cameron McKenna	Imperial Irrigation District	Southern California Edison Company
Cardinal Cogen	Innercite	St. Paul Assoc.
Casner, Steve	International Power Technology	Sunshine Design
Cerox	Intestate Gas Services, Inc.	Sutherland, Asbill & Brennan
Chamberlain, Eric	J. R. Wood, Inc.	TFS Energy
Chevron Company	JTM, Inc.	Tabors Caramanis & Associates
Chris, King	Los Angeles Dept of Water & Power	Tecogen, Inc.
City of Glendale	Luce, Forward, Hamilton & Scripps LLP	TransCanada
City of Palo Alto	MBMC, Inc.	Turlock Irrigation District
City of San Jose	MRW & Associates	U S Borax, Inc.
Clean Energy Fuels	Manatt Phelps Phillips	United Cogen
Coast Economic Consulting	Matthew V. Brady & Associates	Utility Cost Management
Commerce Energy	McKenzie & Associates	Utility Resource Network
Commercial Energy	Meek, Daniel W.	Utility Specialists
Constellation	Merced Irrigation District	Vandenberg Air Force
Constellation New Energy	Mirant	Verizon
Consumer Federation of California	Modesto Irrigation District	Wellhead Electric Company
Crossborder Energy	Morgan Stanley	Western Manufactured Housing Communities Association (WMA)
Davis Wright Tremaine LLP	Morrison & Foerster	White & Case
Day Carter Murphy	New United Motor Mfg., Inc.	eMeter Corporation
Defense Energy Support Center	Norris & Wong Associates	
Department of Water Resources	North Coast SolarResources	