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# ClimateSmart Program 2012 Annual Report

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***Pacific Gas and  
Electric Company***<sup>®</sup>

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March 15, 2013

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## 1. Introduction and Program Overview

In accordance with Resolution (Res) G-3429, Pacific Gas and Electric Company (PG&E) submits its annual ClimateSmart™ Program (the Program) report to the California Public Utilities Commission (CPUC or Commission) on the Program's progress through December 31, 2012.

PG&E's ClimateSmart demonstration program was approved by the CPUC on December 14, 2006. The program enabled PG&E's customers to voluntarily balance out the greenhouse gas (GHG) emissions associated with their own natural gas and electricity use. Under the program, customers who participated were charged an extra \$0.06528 per therm of natural gas and \$0.00254 per kilowatt-hour of electricity (Customer Premiums), which were the volumetric rates set by the CPUC to make the GHG emissions associated with their home or business energy use "carbon neutral." The more energy a customer used, the higher the contributions were to the ClimateSmart Program. The revenues from the program have been and will be used solely to invest in GHG emission reduction projects in California; these projects include a range of GHG emission reduction methods, including forestry, dairy and landfill methane capture, and refrigerant destruction.

The Program collected the aforementioned Customer Premiums from the outset of the Program through December 31, 2011, when this demonstration program's approved term expired, as discussed below. The Program is now primarily focused on managing existing contracts and planning the future disposition of collected ClimateSmart funds through the purchase of GHG emission reductions in accordance with prior Commission Decisions.

In Commission Decision (D.) 06-12-032 (Initial Decision), the CPUC ordered PG&E to issue an annual report for each of the program years, 2007 through 2009. In D.10-10-025, the CPUC approved the extension of the program through December 2011, and ordered PG&E to file an annual report for 2010 as required by D.06-12-032. In lieu of an annual report for 2011, PG&E was ordered to collaborate with the Energy Division and hire an external consultant to conduct a comprehensive evaluation of the ClimateSmart Program. That report was filed with the Commission on June 15, 2012. Finally, in December 2011, Res G-3429 approved the Servicing Agreement between PG&E and the ClimateSmart Charity (Charity), a tax-exempt 501(c)(3) entity, created to allow ClimateSmart participants to deduct their ClimateSmart payments from their income taxes. Among other things, Res G-3429 ordered PG&E to provide an annual report beginning on March 15, 2013, until all procured GHG emission reductions have been delivered, including those procured by PG&E to meet the Initial Decision's performance guarantee. Appendix C includes a matrix of the Res G-3429 information requirements to be included in this annual report, and where that information occurs in this report.

### a. Execution of Program-Related Agreements

Under the Servicing Agreement approved by the Commission on December 15, 2011, PG&E provides billing, banking, money management and remittance services to the Charity. In Res G-3429, the Commission contemplated that PG&E would assign the Verified Emission Reduction Purchase Agreements (VERPAs) to the Charity once the Servicing Agreement was in effect. Therefore, on December 28, 2012, PG&E and the Charity entered into an Assignment and Assumption Agreement (Assignment Agreement), which assigns and transfers the VERPAS to the Charity. The Charity assumes all of PG&E's liabilities and obligations under each of the VERPAs and

agrees to perform the covenants, duties and obligations of PG&E under each of the VERPAs. However, PG&E will act as a guarantor in case of default by the Charity.

In connection with the Assignment Agreement, PG&E and the Charity also entered into an agreement to address the ongoing management and administration of the VERPAs (Management Agreement). This Management Agreement establishes PG&E as the Service Provider, under which PG&E will continue to be responsible for managing and administering the VERPAs, and the Charity as the Service Recipient. PG&E's services include, but are not limited to: payment and settlement of contracts, portfolio management, financial services, tax services, legal affairs and accounting services. No fees shall be charged to either party for the services provided under the Management Agreement.

## **b. 2011 ClimateSmart Charity Annual Financial Statements**

The Charity prepared its 2011 annual financial statements during 2012. These financial statements were audited by Certified Public Accountant firm WilsonMorgan LLP, which provided an unqualified opinion regarding the financial statements as presented on December 31, 2011. The audit report and accompanying financial statements were furnished to the Commission on October 24, 2012. All fees were paid by PG&E and none were borne by the Charity.

## **c. Performance Guarantee**

As of December 31, 2012, the ClimateSmart Program has contracted for 1,461,577 Verified Emission Reductions (VERs).<sup>1</sup> As of December 31, 2012, the ClimateSmart Program has permanently retired 1,133,735 of the 1,461,577 contracted VERs (see Table 1-1, below).

On January 21, 2010, the CPUC adopted Res G-3425, clarifying PG&E's ClimateSmart Program guarantee from the Initial Decision to be 1.5 million short tons<sup>2</sup> of carbon dioxide equivalent (CO<sub>2</sub>e). This equates to 1,360,777 metric tons (MT) CO<sub>2</sub>e, which will be the CO<sub>2</sub>e unit referred to throughout the remainder of this report. The ClimateSmart Program has contracted for sufficient VERs to meet and to exceed the milestone originally set forth by the CPUC.

**TABLE 1-1  
SUMMARY OF GHG EMISSION REDUCTIONS UNDER CONTRACT**

Performance Guarantee (MT CO <sub>2</sub> e)	1,360,777
Contracted VERs	1,461,577
Average Price per VER	\$9.14
VERs Delivered to PG&E and Retired	1,133,735

The ClimateSmart Program and Charity have worked diligently to manage funds efficiently and effectively while creating a diverse carbon offset portfolio.

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<sup>1</sup> One VER represents the reduction or offset of one metric ton of carbon dioxide equivalent (MT CO<sub>2</sub>e).

<sup>2</sup> One short ton = 0.9072 metric tons = 2,000 pounds.

While some delays in the delivery of VERs were experienced, the Program worked to amend and make achievable the delivery terms of contracted VERs, or to shift deliveries to existing vendors with a history of reliable performance. Additionally, the Program contracted for options to purchase VERs at below-average prices to effectively manage potential surplus of contracted offsets, and to maximize the funds available for use. Section 2 – Contract Overview details the delivery history and future commitments of the ClimateSmart Charity contracts, which are projected to extend through 2021.

#### **d. Program Funds**

In January 2012, all remaining balancing account premium funds were transferred from an Escrow Account (jointly administered by PG&E and the Charity) to the Charity subsequent to the closing of the ClimateSmart Program. During May 2012, the remaining unused Administrative and Marketing (A&M) funds were transferred to the Charity; these funds totaled approximately \$1.9 million. All premiums, interest and unspent A&M funds are to be used solely to procure GHG emission reductions. These transfers and calculations were executed in accordance with Res G-3429.

As of December 31, 2012, all funds used to procure GHG emission reductions consisted solely of ClimateSmart premiums, unused A&M Subaccount funds and interest earned on balancing account or bank balances. No PG&E shareholder funds were used to purchase GHG emission reductions.

As noted above all ClimateSmart Premium Subaccount funds were transferred from the Escrow Account to the Charity in January 2012; any interest earned on that Premium Subaccount no longer accrues at PG&E's cost of capital interest rate, but rather at commercially available depository interest rates.

The total amount of interest earned during fiscal year 2012 was approximately \$3,300, of which \$1,400 was related to interest earned on unused A&M funds transferred in 2012 and \$1,900 was related to interest earned on bank balances during 2012. No balancing account interest was earned on the ClimateSmart Premium subaccount during 2012 as funds were transferred to the Charity in January 2012. All interest was calculated in accordance with Res G-3429.

## **2. Contract Overview**

The following organizations are under contract or recently completed contracts to deliver GHG emission reductions under the ClimateSmart Program:

- 1) California Bioenergy
- 2) City of Arcata
- 3) Environmental Credit Corporation
- 4) Recology
- 5) Sempervirens Fund
- 6) The Conservation Fund

The following sections (a through f) address each of these organizations with which the Program has contracted, including: a general overview of their projects and contracts;

amendments made to these contracts; and a summary of GHG reductions delivered under each of these contracts. Unredacted contracts not provided in previous annual reports (i.e., Sempervirens Fund and The Conservation Fund contracts) are provided in Appendix A, and amendments executed in 2011 and 2012 are provided in Appendix B.

All contracts are in compliance with their current terms. Environmental Credit Corporation's contract was fulfilled and they completed delivery of all of their contracted VERs; the remaining five contracts are ongoing.

## **a. California Bioenergy**

### **i. Overview**

California Bioenergy's (CalBio) Old River Road and Stockdale projects are livestock methane projects near Bakersfield, California. Manure from the dairy cows is put through anaerobic digester, where bacteria break down the manure and release methane.<sup>3</sup> Under these two projects, the methane is trapped and destroyed instead of being released into the atmosphere. Under the original contract, CalBio was obligated to deliver 75,000 VERs between 2010 and 2013, but subsequent contract amendments have reduced the quantity of VERs and delayed the delivery requirements, as described below. This contract is ongoing.

Contract Chronology:

- April 14, 2009 – PG&E and California Bioenergy LLC executed a VERPA.
- July 1, 2010 – Amendment signed to add any additional dairy to CalBio's Project and to describe the buyer contractor requirement and Buyer's Supplier Diversity Purchasing policy.
- December 21, 2012 – Amendment signed to reduce the volume of VERs from 75,000 to 45,000 and extend the Guaranteed Commercial Operation Dates to April 1, 2013 for the Stockdale dairy and to August 15, 2014 for the Old River dairy (Appendix B).

### **ii. Summary of GHG Reductions**

CalBio has yet to deliver VERs but is expected to generate 1,250 VERs in 2013.

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<sup>3</sup> Per the Climate Action Reserve Program a global warming potential of 21 is used to convert methane into CO<sub>2</sub>e.

**TABLE 2-1  
CALIFORNIA BIOENERGY GHG EMISSION REDUCTIONS CONTRACTED  
FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2013	1,250	–
2014	13,000	–
2015	15,000	–
2016	15,750	–
<b>Total</b>	<b>45,000</b>	<b>–</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

## **b. City of Arcata**

### ***i. Overview***

On November 23, 2009, PG&E executed a VERPA with the city of Arcata for 40,000 VERs from the Jacoby Creek and the Sunny Brae tracts of Arcata’s Community Forest, to be delivered through 2013. By reducing the timber harvesting done in these 460 acres of redwood and Douglas-fir forests, the city of Arcata will allow them to grow larger and capture more GHG from the atmosphere. The delivery dates were extended through subsequent amendments, as described below. This contract is ongoing.

Contract Chronology:

- November 23, 2009 – PG&E and the city of Arcata executed a VERPA.
- December 29, 2010 – Amendment signed to extend the following Guaranteed Milestones: Climate Action Reserve (CAR) registration; Project Verification report deadline; delivery of Annual Amount for Reporting Year 2009; and repayment of the Prepayment.
- February 11, 2011 – Amendment signed to further extend the Guaranteed Milestones listed above.
- December 22, 2011 – Amendment signed to clarify Definitions and once again extend Guaranteed Milestones.

### ***ii. Summary of GHG Reductions***

In 2012 and to date, the city of Arcata has delivered 17,680 of the 40,000 VERs contracted to the Program (Table 2-2).



**TABLE 2-2  
CITY OF ARCATA GHG EMISSION REDUCTIONS  
CONTRACTED FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2009	3,489	3,489*
2010	4,442	4,442*
2011	9,750	9,749*
2012	5,422	–
2013	5,422	–
2014	5,422	–
2015	5,422	–
2016	631	–
<b>Total</b>	<b>40,000</b>	<b>17,680*</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

\* Have been delivered to PG&E but not yet retired.

**TABLE 2-3  
CITY OF ARCATA – GHG EMISSION REDUCTIONS (VERs)  
DELIVERED ANNUALLY**

<b>Delivery Year</b>	<b>VERs Quantity</b>
2012	17,680*
<b>Total</b>	<b>17,680*</b>

\* Have been delivered to PG&E but not yet retired.

### **c. Environmental Credit Corporation**

#### ***i. Overview***

PG&E contracted with Environmental Credit Corporation (ECC) on a U.S. Ozone Depleting Substances (ODS)<sup>4</sup> Project, where ECC destroyed recovered/reclaimed refrigerants from disposed refrigerators, freezers, air conditioners, and bulk chillers. The majority of the materials were recovered at the Appliance Recycling Center of America in Compton, California. ECC worked with Appliance Recycling Centers of America to consolidate the refrigerants, ship them to an approved destruction facility, and pay for the destruction and the verification of the destruction. All contract terms have been fulfilled.

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<sup>4</sup> ODS were historically used in a variety of applications including refrigerants, foam blowing agents, solvents, and fire suppressants. In addition to their potency as ozone depleting substances, ODS exhibit high global warming potentials. The Montreal Protocol and the U.S. Clean Air Act control the production of ODS in the United States; however, neither framework requires the destruction of existing stocks of ODS. As such, continued use of these ODS is still widespread.

**ii. Summary of GHG Reductions**

Environmental Credit Corporation has delivered all 160,000 of the contracted VERs to the Program (Table 2-4).

**TABLE 2-4  
ENVIRONMENTAL CREDIT CORPORATION GHG EMISSION REDUCTIONS  
CONTRACTED FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2010	100,000	140,358
2010/2011	60,000	19,642
<b>Total</b>	<b>160,000</b>	<b>160,000</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

**TABLE 2-5  
ENVIRONMENTAL CREDIT CORPORATION – GHG EMISSION  
REDUCTIONS (VERs) DELIVERED ANNUALLY**

<b>Delivery Year</b>	<b>VERs Quantity</b>
2011	160,000
<b>Total</b>	<b>160,000</b>

\* Have been delivered to PG&E but not yet retired.

**d. Recology**

**i. Overview**

PG&E contracted with Recology's Hay Road and Yuba-Sutter methane capture projects in 2009, to capture and destroy landfill gas. The Hay Road Landfill is in Vacaville, and the Yuba-Sutter Landfill is in Marysville. Combined, these two projects were originally required to deliver 137,750 VERs to the ClimateSmart Program. This quantity was increased to 147,750 VERs in a subsequent amendment, as described below. This contract is ongoing.

Contract Chronology:

- August 10, 2009 – PG&E and Recology Hay Road executed a VERPA to deliver 90,750 MT CO<sub>2</sub>e between 2010 and 2013.
- December 18, 2009 – PG&E and Recology Yuba-Sutter executed a contract to deliver 47,000 MT CO<sub>2</sub>e between 2010 and 2013.
- December 31, 2009 – Amendment signed to add a Parcel to the Yuba-Sutter Project.
- April 30, 2012 – Amendment signed to allow Recology to meet VER delivery requirements from either Yuba-Sutter or Hay Road project by April 15, 2014.
- December 21, 2012 – Amendment signed for sale of 10,000 additional VERs and two options for the Program to purchase VERs in the future: Option 1 for 1,800 additional VERs and Option 2 for 20,000 additional VERs.

**ii. Summary of GHG Reductions**

In 2012, Recology delivered 65,232 VERs to the ClimateSmart Program (Table 2-7). To date, Recology has delivered 108,112 of the 147,750 contracted VERs to the Program, under its Hay Road and Yuba-Sutter contracts.

**TABLE 2-6  
RECOLOGY GHG EMISSION REDUCTIONS  
CONTRACTED FOR AND DELIVERED**

VER Vintage	MT CO <sub>2</sub> e <sup>†</sup> Contracted – Total*	MT CO <sub>2</sub> e Delivered – Hay Road	MT CO <sub>2</sub> e Delivered – Yuba-Sutter	MT CO <sub>2</sub> e Delivered – Total
2009	42,880*	1,087	–	1,087
2010*		41,793	–	41,793
	104,870*	–	5,437	5,437
2011		48,978	10,817	59,795
2012		–	–	–
2013		–	–	–
2014			–	–
<b>Total</b>	<b>147,750</b>	<b>91,858</b>	<b>16,254</b>	<b>108,112</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

\* Agreement was amended after 42,880 VERs were delivered, to allow Recology to deliver the remaining VERs from either project and at any time but no later than April 14, 2014.

**TABLE 2-7  
RECOLOGY – GHG EMISSION REDUCTIONS (VERs)  
DELIVERED ANNUALLY**

Delivery Year	VERs Quantity
2011	42,880
2012	65,232
<b>Total</b>	<b>108,112</b>

\* Have been delivered to PG&E but not yet retired.

## **e. Sempervirens Fund**

### ***i. Overview***

In 2008, PG&E contracted with Sempervirens Fund, a 110-year-old land trust, to sequester GHG emissions by permanently protecting 202 acres of redwood trees in the Lompico Forest in the Santa Cruz Mountains. These trees capture significant amounts of CO<sub>2</sub>, and had been slated for logging. Under the contract, Sempervirens Fund agreed to deliver 15,720 VERs by 2021. This contract is ongoing.

Contract Chronology:

- February 26, 2008 – PG&E and Sempervirens Fund executed a VERPA.
- January 7, 2009 – Amendment signed to extend Milestones and VER delivery schedule.
- December 31, 2009 – Amendment signed to clarify Definitions, update Exhibits, and to further extend Milestones.

### ***ii. Summary of GHG Reductions***

In 2012, Sempervirens delivered 848 VERs to the ClimateSmart Program (Table 2-9). To date, Sempervirens has delivered 10,944 of the 14,148 VERs under contract, currently ahead of its contracted schedule.

**TABLE 2-8  
SEMPERVIRENS FUND GHG EMISSION REDUCTIONS  
CONTRACTED FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2007	6,998	7,552
2008	257	848
2009	265	848
2010	271	848
2011	277	848
2012	284	–
2013	292	–
2014	299	–
2015	307	–
2016	314	–
2017	322	–
2018	63	–
2019	59	–
2020	55	–
2021	4,085	–
<b>Total</b>	<b>14,148</b>	<b>10,944</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

**TABLE 2-9  
SEMPERVIRENS FUND – GHG EMISSION  
REDUCTIONS (VERs) DELIVERED ANNUALLY**

<b>Delivery Year</b>	<b>VERs Quantity</b>
2010	9,248
2011	848
2012	848
<b>Total</b>	<b>10,944</b>

## **f. The Conservation Fund**

### **i. Overview**

Under The Conservation Fund's (TCF) Garcia River Forest project (approximately 23,780 acres), and the Big River Forest (approximately 11,770 acres) and Salmon Creek Forest (approximately 4,250 acres) project, TCF preserves trees that otherwise would have been harvested, resulting in the sequestration of CO<sub>2</sub>. TCF's contract requires the Garcia River Forest project to deliver 200,000 VERs by 2012 and the Big River and Salmon Creek Forest projects to deliver 600,000 VERs by 2016. As summarized below, a subsequent

amendment allowed for additional VERs to also be purchased by PG&E. This contract is ongoing.

Contract Chronology:

- February 27, 2008 – PG&E and TCF executed a VERPA.
- March 3, 2009 – Amendment signed to incorporate the Big River and Salmon Creek Forest projects into TCF’s Project.
- August 4, 2009 – Amendment signed to transfer 40,000 additional VERs and to give PG&E the option to purchase an additional 60,000 from the Garcia River Forest Project.
- April 12, 2011 – Amendment signed to transfer an additional 33,879 VERs, and two options: the first for purchase of 120,000 VERs, and the second for the purchase of an additional 60,000 MT CO<sub>2</sub>e. In addition, the amendment revised TCF’s right of first refusal obligation (Appendix B).

**ii. Summary of GHG Reductions**

In 2012, TCF delivered 160,000 VERs (Table 2-12). The 40,000 2011 VERs from Garcia River were replaced by 20,000 2010-vintage VERs from Garcia River and 20,000 2011-vintage VERs from Big River and Salmon Creek. All 2012 offsets were delivered on schedule.

To date, TCF has delivered 854,679 of the 1,054,679 VERs under contract to the ClimateSmart Program.

**TABLE 2-10  
TCF GARCIA RIVER FOREST GHG EMISSION REDUCTIONS  
CONTRACTED FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2008	140,800	140,800
2009	40,000	40,000
2010	193,879	213,879
2011	40,000	0
2012	40,000	–
<b>Total</b>	<b>454,679</b>	<b>394,679</b>

**TABLE 2-11  
TCF BIG RIVER AND SALMON CREEK FORESTS GHG EMISSION  
REDUCTIONS CONTRACTED FOR AND DELIVERED**

<b>VER Vintage</b>	<b>MT CO<sub>2</sub>e<sup>†</sup> Contracted</b>	<b>MT CO<sub>2</sub>e Delivered</b>
2009	200,000	200,000
2010	200,000	200,000
2011	40,000	60,000
2012	40,000	–
2013	40,000	–
2014	40,000	–
2015	40,000	–
<b>Total</b>	<b>600,000</b>	<b>460,000</b>

† MT CO<sub>2</sub>e – metric tons of CO<sub>2</sub> equivalent.

**TABLE 2-12  
TCF GHG EMISSION REDUCTIONS (VERs)  
DELIVERED ANNUALLY**

<b>Delivery Year</b>	<b>VERs Quantity</b>
2009	140,800
2010	240,000
2011	313,879
2012	160,000
<b>Total</b>	<b>854,679</b>

### 3. Conclusion

The ClimateSmart Program continues to progress towards its program guarantee set forth in the Initial Decision of 1,360,777 MT CO<sub>2</sub>e of GHG emission reductions retired. Thus far, the Program has reached 83 percent of this target (1,133,735 MT CO<sub>2</sub>e), and is on track to reach or exceed 100 percent of its Program target by 2021.