

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

RESOLUTION E-4083
August 23, 2007

REDACTED

R E S O L U T I O N

Resolution E-4083. Pacific Gas and Electric (PG&E) Company requests approval of the Microgy renewable resource procurement contract. This contract is approved without modification

By Advice Letter 2996-E filed on February 28, 2007, and Supplemental Advice Letter 2996-E-A filed on July 12, 2007

SUMMARY

PG&E’s renewable contract, which relates to biogas injected into a Natural Gas Pipeline, complies with the Renewable Portfolio Standard (RPS) procurement guidelines and is approved without modification

PG&E filed Advice Letter (AL) 2996-E on February 28, 2007, requesting Commission review and approval of a contract executed with Microgy. The Agreement between Microgy and PG&E is for 10 years of digester gas (biogas) production and delivery.

Generating Facility	Type	Term Years	MMBTus	MWh ¹	Online Date	Location
Microgy	Digester Gas	10	≤ 8000	≤ 389,000	8/2010	Fresno County, CA

Deliveries from this contract are reasonably priced, and the contract price is fully recoverable in rates over the life of the contract, subject to Commission review of PG&E’s administration of the contract.

Confidential information about the contract should remain confidential

This resolution finds that certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583, General Order (G.O.) 66-C, and

¹ The calculation for annual deliveries in MWhs is: 8,000 MMBtu/day at 7,500 Btu/kWh Heat Rate = [(365 days/year)*(8,000 MMBtu)*(1,000,000 Btu/MMBtu)]/[(7,500 Btu/kWh)/(1,000,000 kWh/GWh)] = 389 GWh/year. The calculation assumes a heat rate of 7500MMBtu/kWh. Heat rate measures generator efficiency, and is defined as the number of BTUs required to produce a kilowatt-hour of energy.

D.06-06-066 should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations.

BACKGROUND

The RPS Program requires each utility to increase the amount of renewable energy in its portfolio

The California Renewables Portfolio Standard (RPS) Program was established by Senate Bill 1078¹ and codified at California Pub. Util. Code Section 399.11, et seq. The statute requires that a retail seller of electricity such as PG&E purchase a certain percentage of electricity generated by Eligible Renewable Energy Resources (ERR). Originally, each utility was required to increase its total procurement of ERRs by at least 1 percent of annual retail sales per year so that 20 percent of its retail sales are supplied by ERRs by 2017.

The State's Energy Action Plan (EAP) called for acceleration of this RPS goal to reach 20 percent by 2010.² This was reiterated again in the Order Instituting Rulemaking (R.04-04-026) issued on April 28, 2004,³ which encouraged the utilities to procure cost-effective renewable generation in excess of their RPS annual procurement targets (APTs)⁴, in order to make progress towards the goal expressed in the EAP. On September 26, 2006, Governor Schwarzenegger signed Senate Bill 107,⁵ which officially accelerates the State's RPS targets to 20 percent by 2010.

In response to SB 1078, the Commission has issued a series of decisions that establish the regulatory and transactional parameters of the utility renewable energy procurement program. On June 19, 2003, the Commission issued its "Order Initiating Implementation of the Senate Bill 1078 Renewable Portfolio Standard Program," D.03-06-071. On June 9, 2004, the Commission adopted its Market Price Referent methodology for determining the Utility's share of the RPS seller's bid price, as defined in Pub. Util. Code Sections 399.14(a)(2)(A) and

¹ Chapter 516, statutes of 2002, effective January 1, 2003 (SB 1078)

² The Energy Action Plan was jointly adopted by the Commission, the California Energy Resources Conservation and Development Commission (CEC) and the California Power Authority (CPA). The Commission adopted the EAP on May 8, 2003.

³ http://www.cpuc.ca.gov/Published/Final_decision/36206.htm

⁴ APT - An LSE's APT for a given year is the amount of renewable generation an LSE must procure in order to meet the statutory requirement that it increase its total eligible renewable procurement by at least 1% of retail sales per year.

⁵ Chapter 464, Statutes of 2006 (SB 107)

399.15(c).¹ On the same day the Commission adopted standard terms and conditions for RPS power purchase agreements in D.04-06-014 as required by Pub. Util. Code Section 399.14(a)(2)(D). Instructions for evaluating the value of each offer to sell products requested in a RPS solicitation were provided in D.04-07-029.

In addition, the Commission established an APT² for each utility, which consists of two separate components: the baseline, representing the amount of renewable generation a utility must retain in its portfolio to continue to satisfy its obligations under the RPS targets of previous years; and the incremental procurement target (IPT),³ defined as at least one percent of the previous year's total retail electrical sales, including power sold to a utility's customers from its DWR contracts.

The Commission has established bilateral procurement guidelines for the RPS Program

While the focus of the RPS program is procurement through competitive solicitations, D.03-06-071⁴ allows for a utility and a generator to enter into bilateral contracts outside of the competitive solicitation process. Specifically, D.03-06-071 states that bilateral contracts will only be allowed if they do not require Public Goods Charge (PGC) funds.⁵

In D.06-10-019, the Commission interprets D.03-06-071, stating that bilaterals are not eligible for Supplemental Energy Payments (SEPs), and that bilateral contracts must be deemed reasonable. Going forward, D.06-10-019 states that the Commission will look further at evaluation criteria for bilateral RPS contracts, including the issue of whether some RPS bilateral contracts should be eligible for SEPs, as SB 107 may allow.⁶ However, in the interim, utilities' bilateral contracts can be evaluated prior to establishing formal evaluation criteria.

¹ D.04-07-015

² D.06-10-050, Attachment A, (http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/61025.PDF) as modified by D.07-03-046 (http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/65833.PDF).

³ The IPT represents the amount of RPS-eligible procurement that the LSE must purchase, in a given year, over and above the total amount the LSE was required to procure in the prior year. An LSE's IPT equals at least 1% of the previous year's total retail electrical sales, including power sold to a utility's customers from its DWR contracts

⁴ http://www.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/27360.htm

⁵ SB 107 (Public Resources Code section 25473(b)(1)(F)) provides that, to receive SEPs, a project must have resulted from a competitive solicitation; see also § 399.13(e).

⁶ D.06-10-019 pp. 31-32.

CEC certifies digester gas as RPS eligible

The California Energy Commission (CEC), in its Renewables Portfolio Standard (RPS) Eligibility Guidebook adopted March 14, 2007, determined that biogas, derived from digester gas, is an RPS eligible renewable energy resource.¹

Biogas Injected into a Natural Gas Pipeline

RPS-eligible biogas (gas derived from RPS-eligible biomass or digester gas) injected into a natural gas transportation pipeline system and delivered into California for use in an RPS-certified hybrid facility may result in the generation of RPS-eligible electricity. The biogas must meet strict heat content and quality requirements within a narrow band of tolerance to qualify as pipeline-grade gas. Quantifying RPS-eligible energy production requires accurate metering of the volume of biogas injected into the transportation pipeline system and the measured heat content of the injected gas. Although blending the biogas into the transportation pipeline system mixes the biogas with other pipeline gas, natural gas regulations require gas entering the system to be “nominated” for use at a specific power plant or to a pipeline system owned by a publicly owned utility or other load-serving entity (LSE). Consequently, the amount and energy content of the biogas or other RPS-eligible gas produced can be measured and either nominated for use at a specific power plant or nominated to a pipeline system owned by an LSE. If the biogas is nominated to a pipeline system, the owner of the system must designate the facility in which the biogas will be used.

The operator of a facility to which biogas is nominated (or designated) must certify its facility as RPS-eligible, recognizing that the facility will use a blend of RPS-eligible and ineligible fuel. The amount of RPS-eligible electricity produced shall be calculated by multiplying the generation of the facility (MWh) by the ratio of the biogas used and the total gas (biogas and natural gas) used by the facility. The electricity generated and gas use must be measured over an equal period (such as MWh produced per month and gas used per month).

Any production or acquisition of gas that is directly supplied to the gas transportation pipeline system and used to produce electricity may generate RPS-eligible electricity as follows:

1. The gas must be produced from an RPS-eligible resource, such as biomass or digester gas.
2. The gas must be injected into a natural gas pipeline system that is either within the WECC region or interconnected to a natural gas pipeline system in the WECC region that delivers gas into California.

¹ <http://www.energy.ca.gov/2007publications/CEC-300-2007-006/CEC-300-2007-006-CMF.PDF>

3. The energy content produced and supplied to the transportation pipeline system must be measured and reported annually, disaggregated by month. Reporting shall be in units of energy (e.g. MMBtu) based on metering of gas volume and adjustment for measured heat content per volume. In addition, the total amount of gas used at the RPS-eligible facility must be reported in the same units measured over the same period and the electricity production must be reported in MWh.
4. The gas must be used at a facility that has been certified as RPS-eligible. As part of the application for certification, the applicant must attest that the RPS-eligible gas will be nominated to that facility or nominated to the LSE-owned pipeline serving the designated facility.
5. In its annual verification report, the Energy Commission will calculate the RPS eligible energy produced using the same methodology discussed above. When applying for RPS and SEP pre-certification, certification, or renewal, the application must include the following: (1) an attestation from the hybrid facility operator of its intent to procure biogas fuel that meets RPS eligibility criteria, and (2) an attestation from the fuel supplier that the fuel meets eligibility requirements.

PG&E requests approval of a renewable energy contract

On February 28, 2007, PG&E filed Advice Letter (AL) 2996-E requesting Commission approval of a renewable procurement contract between PG&E and Microgy. On July 12, 2007, PG&E filed Supplemental AL 2996-E-A to amend certain terms and conditions related to obtaining RPS-eligibility certification for the proposed project from the California Energy Commission.

The contract results from bilateral negotiations and Commission approval of the contract will authorize PG&E to accept future deliveries of incremental supplies of renewable resources and contribute towards the 20 percent renewables procurement goal required by California's RPS statute.¹ Procurement from the Proposed Agreement will likely contribute towards PG&E's APT starting in 2009.²

PG&E requests final "CPUC Approval" of Contract

PG&E requests the Commission to issue a resolution containing the findings required by the definition of "CPUC Approval" in Appendix A of D.04-06-014. In

¹ California Pub. Util. Code section 399.11 et seq., as interpreted by D.03-07-061, the "Order Initiating Implementation of the Senate Bill 1078 Renewables Portfolio Standard Program", and subsequent CPUC decisions in Rulemaking (R.) 04-04-026.

² While the contractual COD is August 2010, initial deliveries are expected to begin in 2009.

addition, PG&E requests that the Commission issue a resolution that finds the following:

1. Approves this Contract in its entirety, including payments to be made by PG&E, subject to CPUC review of PG&E's administration of the agreement.
2. Finds that electricity generated through the use of the biogas procured under this Agreement is produced by an eligible renewable energy resource for purposes of determining PG&E's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 et seq.), D.03-06-071, or other applicable law, subject to CEC certification that the use of digester gas to generate electricity creates an eligible renewable energy resource as defined by Section 399.12 of the Public Utilities Code.
3. Finds that electricity generated through the use of the biogas procured under this Agreement constitutes incremental procurement or procurement for baseline replenishment by PG&E from an eligible renewable energy resource for purposes of determining PG&E's compliance with any obligation to increase its total procurement of eligible renewable energy resources that it may have pursuant to the California Renewables Portfolio Standard, CPUC D.03-06-071, or other applicable law, subject to CEC certification that the use of digester gas to generate electricity creates an eligible renewable energy resource as defined by Section 399.12 of the Public Utilities Code.
4. Finds that payments made under the Contract and any indirect costs of renewables procurement identified in Section 399.15(d) shall be recovered in full over the life of the contracts in the Energy Resource Recovery Account as a utility fuel cost.
5. Finds that the costs associated with this Contract between PG&E and Sellers are reasonable and in the public interest.

PG&E's Procurement Review Group participated in review of the contract

In D. 02-08-071, the Commission required each utility to establish a "Procurement Review Group" (PRG) whose members, subject to an appropriate non-disclosure agreement, would have the right to consult with the utilities and review the details of:

1. Overall transitional procurement strategy;
2. Proposed procurement processes including, but not limited to, RFO; and

3. Proposed procurement contracts before any of the contracts are submitted to the Commission for expedited review.

The PRG for PG&E consists of: California Department of Water Resources (DWR), the Commission’s Energy Division, Natural Resources Defense Council (NRDC), Union of Concerned Scientists (UCS), Division of Ratepayer Advocates (DRA), Aglet Consumer Alliance (Aglet), and The Utility Reform Network (TURN).

PG&E briefed its PRG on July 19, 2006, on the prospect for dairies producing pipeline-quality biogas (digester gas) as a viable renewable resource. On September 25, 2006, PG&E confirmed that it was negotiating gas supply contracts with biogas project developers, and expanded on the statewide potential and unique benefits of digester gas.

None of the PRG members have expressed any objection to the price or terms presented to them in connection with the Proposed Contract. Although Energy Division is a member of the PRG, it reserved its conclusions for review and recommendation on the contracts to the resolution process.

NOTICE

Notice of AL 2996-E and Supplemental AL 2996-E-A were made by publication in the Commission’s Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section III-G of General Order 96-A.

PROTESTS

Advice Letter 2996-E was not protested.

DISCUSSION

Description of the project

The following table summarizes the substantive features of the Contract. See confidential Appendix A for a detailed discussion of contract terms and conditions:

Generating Facility	Type	Term Years	MMBTus	MWh	Online Date	Location
Microgy	Digester Gas	10	≤ 8000	≤ 389,000	8/2010	Fresno County, CA

Contract is consistent with PG&E's CPUC adopted 2006 RPS Plan

California's RPS statute requires the Commission to review the results of a renewable energy resource solicitation submitted for approval by a utility.¹ PG&E's 2006 RPS procurement plan (Plan) was approved by D.06-05-039 on May 25, 2006. In its 2006 Plan, PG&E stated goals of procuring approximately 1-2 percent of retail sales volume or between 700 and 1,400 GWh per year from projects offering as-available, baseload, peaking and/or dispatchable deliveries. This contract is consistent with PG&E's goal of procuring baseload energy from projects that may contribute towards 20% renewables in 2010.²

Contract is consistent with RPS bilateral contracting guidelines

The proposed contract is consistent with Commission decisions regarding RPS bilateral contracts³ as the project does not seek Supplemental Energy Payment (SEP) funds. The project is ineligible for such awards because it did not result from a competitive solicitation.⁴

The Commission intends to include more explicit standards and criteria to evaluate the reasonableness of RPS bilateral contract prices in a decision in the near future. Until such decision is approved, the Commission will continue to consider the approval of RPS bilateral contracts on a case-by-case basis.

Contract Price is Reasonable

Energy Division staff administers price reasonableness review for bilateral contracts on a case-by-case basis, and finds this contract reasonable. Staff compared the contract price to the 10-year-fixed natural gas price at PG&E Citygate⁵ at the time of contract execution. In addition to gas forecast price, PG&E included a value in the contract price for the environmental attribute of a

¹ Pub. Util. Code, Section §399.14

² While the Commercial Online Date is 8/2010, Microgy expects initial deliveries to begin in first quarter, 2009.

³ "[The CPUC]...will allow prudent bilateral contracts only when such contracts do not require any PGC funds" (D.03-06-071 p. 59, CoL 31, OP 29).

"For now, utilities' bilateral RPS contracts, of any length, must be submitted for approval by advice letter. Such contracts are not subject to the MPR, which applies to solicitations, but they must be reasonable (D.03-06-017, *mimeo.*, p. 59)... No bilateral contracts are currently eligible for SEPs" (D.06-10-019, pp.31-32).

⁴ "[The CPUC]...will allow prudent bilateral contracts only when such contracts do not require any PGC funds" (D.03-06-071 p. 59). "Applicants for eligible renewable facilities must compete for NRFP funding [otherwise known as SEPs] by participating in competitive RPS [footnote continued on next page] solicitations held by PG&E, SCE and SDG&E." p. 3, CEC's New Renewable Facilities Program Guidebook, April 2006.

⁵ PG&E Citygate price is the Henry Hub gas price plus transportation costs to "Citygate", defined as any point at which imported gas meets PG&E's local transmission and distribution system.

renewable gas product. Staff compared the value of the environmental attribute to market data and recent Commission approved RPS resolutions, and finds the value reasonable. See confidential Appendix B.

Biogas, produced from dairy waste, is a new resource eligible for California's Renewables Portfolio Standard. The Commission may adopt a standard price reasonableness test for RPS gas contracts, consequently, the evaluation methodology used here is not precedent setting.

Consistency with Adopted Standard Terms and Conditions

In D.04-06-014, the Commission set forth standard terms and conditions to be incorporated into all RPS power purchase agreements. AL 2996-E pertains to a gas purchase contract, not a power purchase agreement; therefore, no electricity is delivered under the contract. As such, we decline to require that the biogas contract strictly comply with D.04-06-014, specifically the Decision's "Definition and Ownership of RECs", at this time. Since the electricity that will be produced by combusting the biogas delivered under the contract must be RPS eligible, we require that the seller convey all environmental attributes necessary for the production of RECs, as they are defined in D.04-06-014 and PU Code §399.12(g)(2). See confidential Appendix A for a detailed discussion of the terms and conditions in the contract.

"May Not be Modified" Terms

The "Definition of Renewable Energy Credits (RECs) term was adopted in D.04-06-014 pursuant to PUC § 399.12(g)(2) which defines:

"Renewable energy credit" to include all renewable and environmental attributes **associated with the production of electricity** from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels. [emphasis added]

RECs, as statutorily defined, are not created until electricity is generated, therefore, biogas digesters, unlike wind turbines and geothermal facilities, have no RECs to convey. Since the biogas will be used to generate RPS eligible electricity, it is necessary that the contracts convey to PG&E any and all environmental attributes necessary to make the electricity RPS eligible. The contract conveys all "Gas Environmental Attributes", defined as follows:

“Gas Environmental Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the use of Gas and its displacement of conventional fuel sources used to generate electricity. Gas Environmental Attributes include, but are not limited to: (1) any avoided discharge of CO₂, CH₄, and other GHGs that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere, and (2) any avoided discharge of pollutants to the air, soil or water such as SO_x, NO_x, CO and other pollutants. Notwithstanding the foregoing, Gas Environmental Attributes shall not include Tradable Carbon Credits.

Any other environmental attributes that may be created from the gathering and production and use of biogas, “Additional Gas Environmental Attributes”, are retained by the seller, and are defined in the contract as:

Any and all credits, benefits, emissions reductions, offsets, reporting rights and allowances, howsoever entitled, and whether or not tradable, that are not directly attributable to the generation of electricity using Gas from Seller’s Sites, but those which are in addition to those qualifying as a Gas Environmental Attributes . . . For the avoidance of doubt, (i) . . . Additional Gas Environmental Attributes include Tradable Carbon Credits (except to the extent that Tradable Carbon Credits constitute “Product” as defined herein); and (ii) any of the foregoing that relate back in any way in calculation of their value to a date prior to the Effective Date may not be counted as an Additional Gas Environmental Attribute.

By definition, “Product” requires Seller to convey all environmental attributes, whether defined as “Gas Environmental Attributes”, “Additional Gas Environmental Attributes”, and/or “Tradable Carbon Credits” to PG&E necessary for the Gas to be RPS-eligible as defined by statute.

The contract grants PG&E an option to purchase any portion of Additional Gas Environmental Attributes, prior to the Seller(s) transferring such attributes to a third party.

The relationship between RPS eligibility and/or compliance requirements, and Additional Gas Environmental Attributes, is an open question that will be developed by the State at a future time, and is not addressed in this resolution. Furthermore, the relationship between RECs and any carbon attributes that may be generated as a result of the conversion of manure to biogas is an unsettled question of policy that may be addressed in a future Commission proceeding. We approve the contract without prejudging these policy matters and with the

understanding that RECs may include carbon allowances or offsets generated by the biogas conversion process.

We do not approve rate recovery for the exercise of PG&E's option to purchase Additional Gas Environmental Attributes at this time. The Commission, in coordination with other state agencies, is in the process of developing a recommendation for the implementation of Assembly Bill 32¹ (AB 32) as it applies to the electricity and natural gas sectors. In R.06-04-009, the Greenhouse Gas Proceeding, the Commission will address whether utilities will be permitted to procure offsets to meet their GHG reduction targets. We decline, therefore, to make a determination on this issue at this time.

"May be Modified" Terms

Some commercially reasonable modifications were mutually agreed to during the negotiations of the contract.

The Commission has approved a decision setting minimum quotas of RPS contracting from long-term contract or contracts with new facilities

Pub. Util. Code 399.14(b)(2) states that before the Commission may approve an RPS contract of less than ten years' duration, the Commission must establish "for each retail seller, minimum quantities of eligible renewable energy resources to be procured either through contracts of at least 10 years' duration or from new facilities commencing commercial operations on or after January 1, 2005." On May 3, 2007, the Commission approved D.07-05-028 that established a minimum percentage of the prior year's retail sales that must be contracted with contracts of at least 10 years' duration or from new facilities commencing commercial operations on or after January 1, 2005. The Commission is thereby permitted to authorize renewable contracts of less than 10 years' duration. If approved, deliveries from this contract will contribute to PG&E's obligation pursuant to D.07-05-028.

Permitting Requirements for Digester Facilities for Water and Air Quality Assurance

Water Quality Permitting

The state's regional water boards are authorized to regulate confined animal facilities for waste discharge that could affect surface and ground water quality.

¹ AB 32 (Nunez) California Global Warming Solutions Act of 2006 requires statewide green house gas (GHG) emissions reduced to 1990 levels by 2020. AB 32 adds Division 25.5 (commencing with Section 38500) to the Health and Safety Code, relating to air pollution.

Regulation is accomplished through the issuance of Waste Discharge Requirements (WDR). Microgy will submit a Report of Waste Discharge (ROWD) to the The Central Valley Regional Water Quality Control Board (Water Board) identifying the location, volume and character of its facility's waste discharge. Microgy is working with the Water Board and private consultants to obtain the necessary permits for its projects.

The Water Board's recently adopted new General Permit Order, "*Waste Discharge Requirements General Order for Existing Milk Cow Dairies*", requires a distinct process for dairies permitting for a digester facility.¹ The water permitting issues for anaerobic digestion facilities are categorized into two areas; (1) Containment of waste material, and (2) Application of discharge from the process.

1. Containment of waste material is not an issue for Microgy because its technology uses above ground tanks, as opposed to in-ground covered lagoons which are prone to leaking.
2. Application of discharge relates to the residual waste from processing the biogas and how the waste is dispersed. Application of discharge is subject to reasonableness test by the Water Board. A reasonable rate of discharge is determined by the amount of land, quantity of nutrients (discharge), composition of discharge, and frequency of applications of the discharge. The Water Board requires the developer and dairy to submit for review and approval, a detailed plan to assure that there are no adverse impacts.²

Air Quality Permitting

The San Joaquin Valley Air Pollution Control District (Valley Air District) regulates eight counties in the Central Valley, including Fresno County.³ A dairy proposing to construct, modify, or operate a digester must first obtain an "Authority to Construct" (ATC) from the county or regional air pollution control district or air quality management district. Microgy has obtained required air permits for similar projects, and is working with the Air Valley District and private consultants to obtain the necessary permits for the projects discussed herein. Each air district uses its own application form for the ATC permit, generally requesting the following information:

¹ http://waterboards.ca.gov/centralvalley/adopted_orders/GeneralOrders/R5-2007-0035.pdf

² <http://www.swrcb.ca.gov/sbforms/form200.pdf>

³ <http://www.valleyair.org/>

1. Description of the business and industrial process, including the types of all materials used and the products manufactured, as well as wastes generated. Applicants describe the types of fuels to be used, their rates of use, and the sulfur and nitrogen content of the fuels. The project description includes the type of air pollution control equipment by design, size, or its anticipated degree of control.
2. Detailed description of the equipment to be used, including all auxiliary equipment and the location, size, and shape of all features which may influence the production, collection, or control of air contaminants. If the equipment uses burners, the description should specify the type, size, and maximum capacity of each burner.
3. Identification Numbers of Existing Air District Permits, if any.
4. Operating Schedule for Emission Sources by Hours Per Day, Days Per Week and Weeks Per Year Including Preventive Maintenance Schedules.
5. Description of how the developer-applicant intends to comply with the requirements of the California Environmental Quality Act (CEQA). Typically, a final Environmental Impact Report (EIR) is needed before the air district can determine application completeness.

Deliveries from the Contract will be Produced at Multiple Dairy Sites

Under the terms of the contract, Microgy will negotiate with dairies in the Central Valley region to develop multiple biogas production sites. For each Seller operating under the terms of the agreement described in AL 2996-E, PG&E will notify Energy Division and provide the following information:

1. Site location, description and name
2. Execution date of Microgy's agreement with dairy
3. Maximum quantity expected from the site
4. Description of the transmission plan, and location where biogas is injected into PG&E's System.

CEC Certifies the Nominated gas-fired Power Plant as RPS-Eligible

Biogas RPS-eligibility requirements include CEC certification of the nominated gas-fired power plant. PG&E will notify the Energy Division Director when its nominated plant has received certification from the CEC. In its letter of notification, PG&E will include the following information: Name, address, heat rate, and generation profile of the RPS-eligible plant.

Contract is a viable project

PG&E believes abundant fuel supply and notable developer experience makes the project viable.

Project Milestones

The contract identifies agreed upon project milestones.

Sponsor's creditworthiness and experience

The Proposed Agreement contains performance assurances intended to motivate the developer to perform in accordance with all terms and conditions.

Microgy's parent company, Environmental Solutions Inc., has 20 years experience as a developer, owner, and operator of clean energy projects.¹ In 2005, Microgy completed a similar project in Texas in which gas produced from dairy waste is injected into a natural gas pipeline system. In 2005, Microgy completed three projects in Wisconsin generating electricity onsite with gas produced from dairy waste.

On March 5, 2007, the California Statewide Communities Development Authority passed and adopted an Inducement Resolution (Resolution NO.07 sw-4) stating its official intent to issue tax-free revenue bonds to undertake the financing of solid waste disposal projects. Bonds totaling \$150,000,000 may be issued for the express purpose of financing the acquisition and construction of several solid waste biosolids processing and disposal facilities to be owned and/or operated by Microgy and to be located at various sites throughout California. Final approval for the issuance of tax-exempt bonds may occur following Microgy filing its application for an award of volume cap with the California Debt Limit Allocation Committee (CDLAC) and upon completing the public hearing process under the Tax and Equity Fiscal responsibility Act of 1982 (TEFRA).² See Attachment A for a copy of the Inducement Resolution.

Technology

Anaerobic digestion, the biological process in which microbes break down organic material in oxygen-free environment, is used to produce methane at municipal wastewater facilities, and more recently has been applied to industrial and agricultural wastes. Microgy is licensed to utilize proprietary European technology installed and operating across Europe at over 20 facilities.

¹ <http://www.environmentalpower.com/>

² <https://cscda.cacommunities.org/apps/?app=11>

Interconnection with PG&E's Gas Transmission System

Project sites that are not adjacent PG&E's Gas Distribution System (System) will require interconnection pipelines. Microgy will obtain rights-of-way and county permits, and is responsible for constructing all interconnect pipeline(s).

In order for the biogas to be accepted into PG&E's System, the facility must meet Rule 21 requirements, of which gas quality and pressurization is pertinent.¹ The dairy interconnection agreements are standard agreements and apply to all parties with no exceptions. Pursuant to PG&E's Gas Rule 21, Section C, the biogas may not exceed 1% carbon dioxide (CO₂) and 4 parts per million (ppm) hydrogen sulphide (H₂S).² If the gas fails to meet PG&E gas quality standards, the gas will be diverted to a flare and combusted on-site. PG&E will provide the tap, metering, and installation for no charge, provided Seller achieves negotiated milestones. PG&E will provide the test equipment for assessing the quality of the gas being injected into the pipeline.

Fuel Supply

Microgy has executed agreements with dairies in Fresno County. PG&E expects deliveries of approximately 3,200 MMBtu/day from these facilities beginning first quarter, 2009. To reach full contract capacity, Microgy will partner with regional dairies to produce biogas until it achieves daily production of 8,000 MMBtu/day. Other strategies may include aggregating biogas from several neighboring dairies to a central location with access to PG&E's System.

Microgy intends to co-digest at some or all of its facilities. Co-digestion describes the process where two or more different organic compounds, or substrates, are combined in anaerobic digestion. The ability to co-digest increases a projects potential fuel supply. Facilities wanting to co-digest may have greater difficulty permitting as co-digestion increases a facility's waste stream.³

Production Tax Credit

The contract is not contingent upon, nor is the pricing dependent on, the extension of federal production tax credits as provided in Section 45 of the Internal Revenue Code of 1986, as amended.

¹ California Electric Rule 21 - Generating Facilities Interconnections

² <http://www.pge.com/tariffs/>

³ The fuel source associated with co-digestion, if composed of organic matter, will be RPS-eligible pursuant to the CEC's Renewables Portfolio Standard eligibility Guidebook.

<http://www.energy.ca.gov/2007publications/CEC-300-2007-006/CEC-300-2007-006-CMF.PDF>

Mobilization among State Agencies and Stakeholders

The gathering and production of biogas at dairies has support from state regulators, permitting agencies, and stakeholders for its environmental and economic benefits for California.

Processing animal manure using anaerobic digestion is an efficient means of managing solid waste; it can also solve potential air and water quality problems brought about by waste disposal, and it produces biogas, which is a source of renewable energy. Thus, anaerobic digestion can address both environmental and energy concerns.¹

Confidential information about the contracts should remain confidential

Certain contract details were filed by PG&E under confidential seal. Energy Division recommends that certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583 and General Order (G.O.) 66-C, and considered for possible disclosure, should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations.

COMMENTS

This is an uncontested matter in which the decision grants the requested relief. Therefore, pursuant to Public Utilities Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS OF FACT

1. The RPS Program requires each utility, including PG&E, to increase the amount of renewable energy in its portfolio to 20 percent by 2010, increasing by a minimum of one percent per year.
2. D.04-06-014 set forth standard terms and conditions to be incorporated into RPS Power Purchase Agreements.
3. The contract is for the purchase of biogas and not electricity.
4. The California Energy Commission is responsible for certifying the RPS eligibility of the biogas, the nominated gas-fired power plant and verifying generation from nominated plant.

¹ <http://www.energy.ca.gov/2006publications/CEC-500-2006-115/CEC-500-2006-115B.PDF>

5. PG&E will notify the Energy Division Director when its nominated plant has received RPS-eligible certification from the California Energy Commission.
6. PG&E will provide Energy Division information on all dairies delivering under the terms of the contract.
7. The Seller conveys to PG&E any and all Additional Gas Environmental Attributes that may be required for the electricity generated from the biogas supplied to be RPS-eligible.
8. D.06-05-039 directed the utilities to issue their 2006 renewable RFOs, consistent with their renewable procurement plans.
9. The contract is consistent with Commission rules regarding bilateral RPS contracts, is reasonably priced and is consistent with applicable adopted standard terms and conditions.
10. The price reasonableness evaluation discussed in this resolution does not set a precedent for Commission review of RPS eligible biogas contracts.
11. The Commission required each utility to establish a Procurement Review Group (PRG) to review the utilities' interim procurement needs and strategy, proposed procurement process, and selected contracts.
12. PG&E filed Advice Letter 2996-E on February 2, 2007, requesting Commission review and approval of a renewable energy contract with Microgy.
13. PG&E filed Supplemental Advice Letter 2996-E-A on July 12, 2007, to amend certain terms and conditions related to the California Energy Commission certifying the proposed project(s) discussed herein as RPS-eligible.
14. PG&E briefed its Procurement Review Group on July 19, 2006, and September 25, 2006 on issues related to digester gas as a renewable resource and its contract negotiations with biogas developers.
15. On May 3, 2007, the Commission approved D.07-05-028 establishing that beginning in 2007, RPS-obligated load-serving entities (LSE) may use energy deliveries from contracts of less than 10 years' duration with eligible renewable energy resources that commenced commercial operation prior to January 1, 2005 for RPS compliance, on one condition. That condition is that each year they also sign contracts of at least 10 years' duration and/or contracts with RPS-eligible generation facilities that commenced commercial operation on or after January 1, 2005, for energy deliveries equivalent to at least 0.25% of their prior years' retail sales.
16. The Commission has reviewed the proposed contract and finds it to be consistent with PG&E's approved 2006 renewable procurement plan.

CONCLUSIONS OF LAW

1. The Commission has reviewed the proposed contract and finds it to be consistent with PG&E's approved 2006 renewable procurement plan.
2. The Standard Terms & Conditions adopted in D.04-06-014 were developed specifically for Power Purchase Agreements.
3. Electricity generated from the biogas delivered under the contract will be RPS eligible.
4. PG&E will notify the Energy Division Director when its nominated plant has received RPS-eligible certification from the California Energy Commission.
5. PG&E will provide Energy Division information on all dairies delivering under the terms of the contract.
6. The contract does not include RECs but does include the underlying environmental attributes necessary for the creation of RECs.
7. The costs of the contract between PG&E and Seller are reasonable and in the public interest; accordingly, the payments to be made by PG&E, other than those made for the purchase of Additional Gas Environmental Attributes, are fully recoverable in rates over the life of the project, subject to CPUC review of PG&E's administration of the contract.
8. Certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583 and General Order (G.O.) 66-C, and considered for possible disclosure, should not be disclosed. Accordingly, the confidential appendices, marked "[REDACTED]" in the redacted copy, should not be made public upon Commission approval of this resolution.
9. Procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 et seq.), Decision 03-06-071, or other applicable law.
10. The relationship between RPS-eligibility and/or compliance, and Additional Gas Environmental Attributes, is an open question of policy that may be developed by the Commission in a future proceeding, and is not addressed in this resolution.
11. The reasonableness of PG&E's option to purchase Additional Gas Environmental Attributes is conditional on questions of policy that will be addressed in R.06-04-009 or other future proceedings.

12. The Commission, in coordination with other state agencies, is in the process of developing a recommendation for the implementation of Assembly Bill 32 as it applies to the electricity and natural gas sectors. Rate recovery for the exercise of PG&E's option to purchase Additional Gas Environmental Attributes is not approved by this resolution.
13. Procurement pursuant to this Agreement constitutes incremental procurement or procurement for baseline replenishment by Buyer from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation to increase its total procurement of eligible renewable energy resources that it may have pursuant to the California Renewables Portfolio Standard, CPUC Decision 03-06-071, or other applicable law;
14. Any indirect costs of renewables procurement identified in Section 399.15(a)(2) shall be recovered in rates;
15. AL 2996-E should be approved as modified by 2996-E-A.

THEREFORE IT IS ORDERED THAT:

1. Advice Letter 2996-E is approved as modified by 2996-E-A.
2. The costs of the contract between PG&E and Seller is reasonable and in the public interest; accordingly, the payments to be made by PG&E, other than those incurred through exercising the option to purchase Additional Gas Environmental Attributes, are fully recoverable in rates over the life of the project, subject to CPUC review of PG&E's administration of the contract.
3. Not with standing ordering Paragraph #2, approval of this contract is conditional on Seller conveying to PG&E any and all Additional Gas Environmental Attributes that may be necessary for electricity generated from the use of the biogas supplied to qualify as RPS eligible generation.
4. This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on August 23, 2007; the following Commissioners voting favorably thereon:

PAUL CLANON
Executive Director

MICHAEL R. PEEVEY
PRESIDENT
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
TIMOTHY ALAN SIMON
Commissioners

Attachment A

California Statewide Communities Development
Authority: Resolution of Intent to Issue Tax-Free Revenue
Bonds

RESOLUTION NO. 07SW-4

**A RESOLUTION OF THE CALIFORNIA STATEWIDE
COMMUNITIES DEVELOPMENT AUTHORITY SETTING
FORTH THE AUTHORITY'S OFFICIAL INTENT TO ISSUE
SOLID WASTE DISPOSAL REVENUE BONDS TO UNDERTAKE
THE FINANCING OF VARIOUS SOLID WASTE DISPOSAL
PROJECTS AND RELATED ACTIONS**

WHEREAS, the Authority is authorized and empowered by the Joint Exercise of Powers Act, commencing with Section 6500 of the California Government Code (the "Act"), to issue bonds for the purpose of financing solid waste disposal projects; and

WHEREAS, Microgy, Inc., and/or its affiliates (the "Borrower") has requested that the Authority issue and sell solid waste disposal revenue bonds (the "Bonds") pursuant to the Act for the purpose of financing the acquisition and construction of several solid waste biosolids processing and disposal facilities to be owned and/or operated by the Borrower and to be located at various sites throughout California, as further shown the application of the Borrower submitted to the Authority (collectively, the "Project"); and

WHEREAS, the Authority, in the course of assisting the Borrower in financing the Project, expects that the Borrower has paid or may pay certain expenditures (the "Reimbursement Expenditures") in connection with the Project within 60 days prior to the adoption of this Resolution and prior to the issuance of the Bonds for the purpose of financing costs associated with the Project on a long-term basis; and

WHEREAS, Section 1.103-8(a)(5) and Section 1.150-2 of the Treasury Regulations require the Authority to declare its reasonable official intent to reimburse prior expenditures for the Project with proceeds of a subsequent tax-exempt borrowing; and

WHEREAS, the Authority wishes to declare its intention to authorize the issuance of Bonds for the purpose of financing costs of the Project (including reimbursement of the Reimbursement Expenditures, when so requested by the Borrower upon such terms and condition as may then be agreed upon by the Authority, the Borrower and the purchaser of the Bonds) in an aggregate principal amount not to exceed \$150,000,000; and

WHEREAS, Section 146 of the Internal Revenue Code of 1986 limits the amount of solid waste disposal revenue bonds that may be issued on behalf of for-profit borrowers in any calendar year by entities within a state and authorizes the governor or the legislature of a state to provide the method of allocation within the state; and

WHEREAS, Chapter 11.8 of Division 1 of Title 2 of the California Government Code governs the allocation of the state ceiling among governmental units in the State of California having the authority to issue private activity bonds; and

WHEREAS, Section 8869.85 of the California Government Code requires a local agency desiring an allocation of the state ceiling to file an application with the California Debt Limit Allocation Committee (the "Committee") for such allocation, and the Committee has certain policies that are to be satisfied in connection with any such application;

NOW, THEREFORE, BE IT RESOLVED by the Commission of the Authority as follows:

Section 1. The above recitals, and each of them, are true and correct.

Section 2. The Authority hereby determines that it is necessary and desirable to provide financing for the Project (including reimbursement of the Reimbursement Expenditures) by the issuance and sale of Bonds pursuant to the Act, as shall be authorized by resolution of the Authority at a meeting to be held for such purpose, in aggregate principal amounts not to exceed \$150,000,000. This action is taken expressly for the purpose of inducing the Borrower to undertake the Project, and nothing contained herein shall be construed to signify that the Project complies with the planning, zoning, subdivision and building laws and ordinances applicable thereto or to suggest that the Authority or any program participant, officer or agent of the Authority will grant any such approval, consent or permit that may be required in connection with the acquisition and construction of the Project, or that the Authority will make any expenditures, incur any indebtedness, or proceed with the financing of the Project.

Section 3. This resolution is being adopted by the Authority solely for purposes of establishing compliance with the requirements of Section 1.103-8(a)(5) and Section 1.150-2 of the Treasury Regulations. In such regard, the Authority hereby declares its official intent to use proceeds of indebtedness to reimburse the Reimbursement Expenditures.

Section 4. The officers and/or the program managers of the Authority are hereby authorized and directed to apply to the Committee for an allocation from the state ceiling of private activity bonds to be issued by the Authority for the Project in an amount not to exceed \$150,000,000, and to take any and all other actions as may be necessary or appropriate in connection with such application, including but not limited to the payment of fees, the posting of deposits and the provision of certificates, and any such actions heretofore taken by such officers and program managers are hereby ratified, approved and confirmed.

PASSED AND ADOPTED by the California Statewide Communities Development Authority this March 5, 2007.

I, the undersigned, a duly appointed and qualified Officer of the California Statewide Communities Development Authority, DO HEREBY CERTIFY that the foregoing resolution was duly adopted by the Commission of said Authority at a duly called meeting of the Commission of said Authority held in accordance with law on March 5, 2007.

By  _____
Member of the Commission

Confidential Appendix A
Contract Summary: Microgy

Confidential Appendix B
Contract Price Analysis

Confidential Appendix C
Project Viability Matrix

Confidential Appendix D
Contribution to RPS Goal