DRAFT

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Item #18
I.D. #7560

ENERGY DIVISION **RESOLUTION G-3410**
May 15, 2008

R E S O L U T I O N

Resolution G-3410. Pacific Gas and Electric Company (PG&E) seeks authorization to contract for manure management projects through its ClimateSmart program. PG&E's request is approved with modifications.

By Advice Letter 2846-G/3075-E. Filed on June 27, 2007.

SUMMARY

PG&E's request is approved subject to the conditions defined herein.

1) PG&E requests authorization to fund manure management projects for its ClimateSmart program. These manure projects would help mitigate climate change through the capture and combustion of methane, which has a global warming potential at least 21 times greater than carbon dioxide (CO_2).

2) In Rulemaking (R.)06-02-012, the Commission will be considering what specific environmental attributes must be included as part of a Renewable Energy Credit (REC) used for compliance with the Renewables Portfolio Standard (RPS) program.[1] That notwithstanding, Public Utilities Code section 399.12 (h) (2) states that "the treatment benefits created by the utilization of biomass or biogas fuels" are not included among the attributes included in a REC. We believe that the capture and combustion of methane through the development and operation of the manure management projects PG&E seeks to fund herein constitutes one form of "treatment benefit" envisioned by this

[1] The renewables portfolio standard refers to the proportion of total retail sales of electricity that is to be met from eligible renewable energy resources. (see Public Utilities (P.U.) Code section 399.11)

section of the P.U. Code, and as such is not included in a REC. In light of this, double-counting of the emission reduction benefits attributable to the manure management projects PG&E seeks to support with ClimateSmart funds will not occur if that methane is used to produce electricity or biogas that is subsequently sold into the California RPS program.

3) PG&E's proposal to fund manure management projects as described in Advice Letter 2846-G/3075-E using ClimateSmart funds is approved. However, in order for a given project to be eligible, PG&E must demonstrate that stringent safeguards are in place to ensure that the emission reductions attributable to ClimateSmart-funded projects are additional to what would have otherwise occurred. While PG&E has included safeguards in its proposal that are consistent with this requirement, we believe more specific detail regarding how PG&E shall assess project additionality are warranted and, to that end, require PG&E to expand its additionality tests/criteria to specifically assess whether a project would be financially viable absent ClimateSmart funds.

4) PG&E's request is approved as modified herein.

BACKGROUND

PG&E's Climate Smart provides customers with an opportunity to offset GHG emissions associated with their electricity and natural gas use.

In Decision (D.) 06-12-032, the Commission approved a new PG&E program called ClimateSmart. The program provides PG&E customers with an opportunity to offset the GHG emissions occurring from their use of electricity and natural gas. Participation in ClimateSmart is voluntary with subscribers agreeing to pay PG&E an additional amount monthly. The utility uses these premiums to fund projects (called offsets) approved by the Commission that will mitigate the subscriber's GHG emissions. The program is scheduled to expire at the end of 2009, although PG&E can request an extension.

PG&E is currently allowed to use ClimateSmart premiums only for funding forestry offsets.

In D.06-12-032, the Commission authorized PG&E to contract only for forestry offset projects.[2] This was because a set of protocols specifically designed for the forestry sector had been developed and approved for use by the California Climate Action Registry (CCAR).[3] Protocols are basically a set of written instructions used for standardizing the measurement and reporting of GHG emission reductions from offset projects.[4] Protocols are also important because they lend credibility to the legitimacy of offset projects through criteria concerning additionality and certification procedures. Presently, only CCAR certified forest management, reforestation, and forest conservation projects within California are eligible for ClimateSmart funding.

PG&E can contract for other types of offsets subject to Commission approval.

PG&E may fund other (non-forestry based) types of offsets for the ClimateSmart program if Commission authorization is obtained. 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. PG&E is required to use an advice letter filing to request approval to fund other kinds of offsets.

To fund new types of offset projects for the ClimateSmart program, D.06-12-032 specifies that the following requirements must be met:

---

[2] D.06-12-032, Ordering Paragraph 17.

[3] CCAR, established by California statute, is a non-profit voluntary registry involved in developing protocols used to catalogue GHG emissions. The organization has developed or is in the process of developing protocols for other sectors.

[4] Protocols can also be designed to report the GHG emissions resulting from certain activities (e.g., cement production).

1) PG&E can only contract for new projects if the appropriate protocols are developed and approved for that class of project by CCAR or other appropriate entity and ensure that the projects meet the requirements of the protocols.[5]

2) PG&E must demonstrate in its advice letter request "…that any new protocol provides rigorous safeguards to assure that projects undertaken under it shall be "additional" and pose no double counting problem."[6]

3) Offset projects eligible for funding must guarantee "additionality".[7]

Additionality and preventing the double counting of GHG emission reductions is critical for the integrity of the ClimateSmart program.

Additionality is a requirement for ClimateSmart funded offset projects. Projects are generally considered to be additional if they produce GHG reductions that would not otherwise occur.

Double counting may occur when the same GHG emission reductions are counted under two different regulatory programs. This issue was discussed in the ClimateSmart proceeding in consideration of manure management projects.[8] These projects decrease GHG emissions through the capture and combustion of methane (or biogas) so that less harmful CO_2 is emitted. Electricity can also be generated from these kinds of projects and designated as a renewable resource. Because of this, there was debate about the implications for double counting if the benefits of the avoided methane emissions are transferred under the Commission's RPS program. Such benefits might be transferred or traded by using RECs.

---

[5] D.06-12-032, p.38 and p. 42 *mimeo* and Ordering Paragraph 28.

[6] D, 06-12-032, Ordering Paragraph 30.

[7] D.06-12-032, *mimeo*, p. 42.

[8] D. 06-12-032, *mimeo*, pp. 40-2.

In D. 06-12-032, the Commission said it is unclear whether the potential for double counting exists if PG&E's ClimateSmart program were to enter into contracts for projects that also sell the methane as part of the RPS program. However, it did recognize the significant contribution manure management projects can make toward moderating climate change. Rather than prohibit the use of manure management projects for the ClimateSmart program because of this uncertainty, the Commission adopted the following condition:

> "PG&E shall file an advice letter with the Executive Director (copy to Director, Energy Division) if it wishes to contract for manure management programs as part of the CPT and shall demonstrate that these projects meet stringent standards to prevent double counting." (D. 06-12-032, Ordering Paragraph 29) [9]

In R.06-02-012, the Commission is currently considering what environmental attributes are included in California RPS-eligible RECs.

In R.06-02-012, the Commission is implementing certain aspects of the RPS program mandated by Senate Bill 1078 and subsequent legislation, most notably SB 107 (Simitian), Stats. 2006, ch. 464. This legislation authorized the Commission to allow the use of unbundled and/or tradable RECs for RPS compliance.[10] In the Amended Scoping Memo and Ruling of Assigned Commissioner (December 29, 2006), the issue was characterized as: "Exploring the use of tradable RECs for RPS compliance by all RPS-obligated LSEs, including determining what attributes should be included in a REC." (*mimeo*., p. 2.). Additionally, the 2008 Energy Action Plan Update notes that the Energy Commission and CPUC have been considering the use of RECs to help facilitate compliance with the RPS and that questions remain about the potential overlap between a carbon market and a REC market that need to be thoughtfully addressed (p15).

---

[9] The ClimateSmart program has also been referred to as the Climate Protection Tariff (CPT).

[10] Section 399.16(a).

CCAR has approved protocols concerning manure management projects. ARB is currently considering if the protocols should be adopted.

On June 19, 2007, CCAR approved a set of protocols applicable to manure management projects. The protocols consist of two documents - the "Livestock Project Reporting Protocol" (Reporting Protocol)[11] and the "Livestock Project Certification Protocol" (Certification Protocol).[12]

The Reporting Protocol provides guidance to project developers for the accounting and reporting of GHG emissions reductions associated with installing a manure biogas control system for livestock operations.[13] To be registered, projects must be located within the United States, begin operating after January 1, 2001, and meet the specified additionality criteria.

The Certification Protocol involves the independent verification of the GHG emission reductions submitted pursuant to the Reporting Protocols.

Additionality criteria contained in the protocol consist of two tests, both of which must be met for registering a project's GHG emission reductions.[14] The Performance Standard Test is a technology-specific threshold. A project passes this test upon the installation of a biogas control system. The Regulatory Test concerns regulations involving biogas control systems. A project passes this test if there are no state, local or federal regulations requiring that dairies or other types of livestock facilities operate biogas control systems.

---

[11] Go to: http://www.climateregistry.org/docs/PROTOCOLS/CCAR_Livestock_Project_Reporting_Protocol_June_2007.pdf.

[12] Go to: http://www.climateregistry.org/docs/PROTOCOLS/CCAR_Livestock_Project_Certification_Protocol_June_2007.pdf.

[13] Biogas control systems are commonly called digesters and are used for the collection and capture of methane from manure management projects. (CCAR Livestock Reporting Protocol, June 2007, p. 2.)

[14] CCAR Livestock Reporting Protocol, June 2007, pp. 4-5.

The California Air Resources Board (ARB) is currently considering adopting the CCAR manure management protocols as part of its implementation of AB 32. ARB staff says it will hold a series of meetings on the protocols with the goal of presenting them to the Board for adoption in 2008.[15]

PG&E requests permission to fund manure management projects for its ClimateSmart program.

In AL 2846-G/3075-E, PG&E is requesting authorization to enter into contracts to fund manure management projects for the ClimateSmart program. The utility would solicit projects from developers that will certify their biogas control system under the CCAR Reporting Protocol. PG&E also proposes to require that projects show a need for ClimateSmart funding.

On the issue of double counting, PG&E examined the processes and environmental benefits associated with manure management projects that generate electricity. The utility explains that generating electricity involves two distinct steps each with separate capital investments. Step one is the collection and decomposition of the manure into methane and its subsequent combustion. Step two is the installation of equipment needed to generate the electricity from the combusted methane.[16]

In its AL, PG&E moves from this description of the activities to an analysis of the environmental benefits from the activities, and a proposal for how to avoid double counting.

NOTICE

Notice of AL 2846-G/3075-E was 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.

---

[15] Go to: http://www.arb.ca.gov/ag/manuremgmt/protocols/protocols.htm.

[16] PG&E notes that the electricity can be generated either on-site or, after processing, the methane can be injected into a pipeline with the electricity generated off-site. (PG&E AL 2846-G/3075-E, p. 4.)

PROTESTS

Advice Letter 2846-G/3075-E was not protested.

DISCUSSION

PG&E must demonstrate that the double counting of GHG emission reductions will not occur in connection with its proposal.

One criterion for approving PG&E's request is that the utility must demonstrate that stringent safeguards are in place to prevent the double counting of GHG emission reductions. This condition was adopted because of the concern raised in the ClimateSmart proceeding about the treatment of GHG emission reductions involving manure management projects which generate RPS-eligible electricity. In particular, double counting may be an issue if the benefits of GHG emission reductions realized through onsite methane capture and destruction are included in a REC.

In its showing, PG&E provided an analysis discussing various elements of electricity producing manure management projects. The utility concluded that double counting does not occur because "the renewable electricity generation requires a separate investment and creates a different environmental benefit from the emission reduction of methane capture and combustion. The reduction of the GHG emission is only counted as the Registry certified GHG emission reduction created in the first step." (PG&E AL 2846-G/3075-E, p. 5)

Importantly, as argued by the Joint Parties, Public Utilities Code Section 399.12 (h) (2) renders this discussion moot. This section states the following:

""Renewable energy credit" includes 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).

Although this code section does not clearly define what is meant by "environmental attributes" and thus leaves ambiguity about what is included in

a REC used for RPS compliance, it clearly excludes certain specific items from the REC. Therefore, 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.

In its advice letter, PG&E seeks authorization to use ClimateSmart monies to pay for the installation of facilities to capture and destroy methane. In exchange, the ClimateSmart program, and by extension its participants, will receive carbon credits to help offset the carbon emissions and global warming impacts associated with their electricity consumption. On further review, we believe that these credits, paid for by ClimateSmart participants and representing reduced GHG emissions, are one of the types of treatment benefits PU Section 399.12 (h) (2) excludes from a REC. Therefore we do not believe double counting would or could occur should the methane captured by a ClimateSmart-funded manure management project be used to produce electricity or biogas that is sold into the California RPS program.

Double counting specifically refers to two or more entities taking credit or claiming the same set of GHG emission reductions. As P.U. code section 399.12 makes clear, in the context of the manure management projects PG&E seeks to fund through ClimateSmart, only ClimateSmart participants would be able to claim the emission reduction benefits associated with the onsite methane capture and destruction because these benefits are expressly not included within a REC used for RPS compliance.

PG&E must demonstrate that ClimateSmart projects are additional to what would have otherwise occurred absent ClimateSmart funding.

In its AL, PG&E indicates that manure management projects seeking funding from ClimateSmart will be certified in accordance with the Climate Registry's Manure Management Project Reporting Protocol. As noted above this protocol has specific performance and regulatory tests to assess project additionality: the performance test and the regulatory test. While we are satisfied that the CCAR performance test is sufficient to ensure that projects would result in emission reductions from a technical perspective, we are not satisfied that the CCAR regulatory test is adequate to ensure the kind of additionality that the Commission requires. The CCAR regulatory test focuses narrowly on the issue of whether the project owner is otherwise obligated by existing regulation to

undertake emission reduction measures and does not take into account whether funds available as a result of other Commission programs would result in these projects being undertaken in any event. Even if there is no regulatory obligation, project owners/hosts may invest in these projects due to market factors as opposed to regulatory requirements. For example, methane capture and development projects may be undertaken to sell renewable electricity or biogas into the RPS program or to produce electricity for onsite usage. Resolution E-4137 approved feed-in tariffs filed by PG&E and SCE pursuant to AB1969 and D.07-07-027. Under these tariffs, the utilities are obligated to purchase energy from eligible renewable projects up to 1.5 MW in size, including biogas, at a price set at the Market Price Referent (MPR) for a period of 10, 15, or 20 years subject to capacity caps specified in D.07-07-027. Furthermore, PG&E has entered into bilateral contracts in which it procures biogas that, when used to produce electricity, contributes to its RPS goals.

In recognition of the existence of market factors that could drive investment in manure management projects beyond the explicit regulatory mandates that are the focus of CCAR's regulatory test, PG&E indicates that it "will require all ClimateSmart projects to provide evidence that but for ClimateSmart funds, the project that generates the Registry certified GHG emission reduction would not have occurred."[17] PG&E has also indicated to Energy Division (ED) staff that it will require project applicants to answer the following questions in order to enable PG&E to determine if a project is additional:

1. What specific activity or work is PG&E funding?
2. Is the activity not required under an existing contract or applicable law, and reasonably projected as not likely to be legally mandated in the reasonably near future.
3. What would have occurred under the "business as usual" scenario?
4. How many tons of GHG emission reductions would have been generated per year under the BAU scenario, and how many more are generated with PG&E ClimateSmart dollars?
5. What is the likelihood of that projected ClimateSmart dollars scenario taking place?

[17] PG&E letter dated January 11, 2008 to ED staff.

While the thrust of these questions is consistent with the goal of determining additionality, we require PG&E to make a more specific showing regarding whether a project would not otherwise be financeable, particularly in light of the other market factors that may support manure management projects absent ClimateSmart or other offset program support. To that end, we add the following question to the list above:

6. Absent ClimateSmart or other offset program support, would the project be financially viable by virtue of the other value streams the project provides? These value streams include but are not necessarily limited to revenues received for selling energy or biogas into the RPS program (e.g. via the feed-in tariff program adopted in D.07-07-027) and the avoided energy costs associated with producing electricity to meet onsite load.

In comments on the draft resolution both PG&E and the Joint Parties object to requiring a showing that projects are not financially viable absent ClimateSmart support as a basis for determining whether a project, if supported by ClimateSmart funding, would be additional. This objection is made on the grounds that financial viability is not the sole determinant of whether or not a manure management project would otherwise be built, this being ultimately what is important in determining whether a project is additional. While we agree that assessing whether a project is additional is ultimately a question of whether or not a project would otherwise be built, we do not agree with parties that a showing of financial viability or lack thereof is inappropriate in informing that determination. Assessments of additionality necessarily require some degree of speculation about what would have occurred but for the availability of offset funding. In doing that assessment, it is not unreasonable to evaluate the extent to which the economics of a project, absent offset program support, are sufficiently attractive to drive investment.

If a project makes economic sense absent ClimateSmart or other offset program support and the project host is economically rational, it is not unreasonable to think the project would be undertaken absent that support, and thus the less likely a given project would be additional. Further, if the project hosts are assumed to not be economically rational, then it is unclear why ClimateSmart or other offset funding would make any difference one way or the other since the

purpose of this kind of funding is specifically to make these projects more financially attractive than they otherwise would be.

We recognize that there may be other factors beyond simply the costs of the requisite infrastructure and the price a project would receive by selling into the RPS program or the value of avoided energy costs by producing electricity to meet onsite load. For example, project hosts may be risk averse or the transaction costs of installing the necessary equipment may be high. However, we believe these factors can be reasonably included in the assessment of financial viability by, for example, increasing the threshold rate of return a project must provide before it would be deemed a worthwhile investment.

Accordingly, we will not remove the financial viability assessment from the questions that must be answered in determining whether a project is eligible to receive ClimateSmart funds. We leave it up to PG&E, working with prospective ClimateSmart funding recipients to determine a reasonable basis for assessing whether a project would or would not be financially viable absent ClimateSmart support. In conducting this analysis PG&E need not consider the availability of other GHG offset funding that a project might receive in lieu of ClimateSmart monies, nor should PG&E include potential value streams that are speculative or otherwise subject to significant uncertainty.

COMMENTS

Public Utilities Code section 311(g)(1) provides that resolutions generally must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission.

Comments were received from PG&E and from the Joint Parties, comprised of the Agriculture Energy Consumers Association, Sustainable Conservation, and California Farm Bureau Federation, and the Green Power Institute, on May 7, 2008. In their comments, PG&E and the Joint Parties both objected to the draft resolution's prohibition on allowing projects that receive ClimateSmart funding from also selling electricity or biogas into the RPS program in order to prevent double counting of GHG emission reduction benefits. They argue that both applicable law, specifically Public Utilities Code Section 399.12 (h) (2), as well as established offset protocols for manure management projects clearly indicate that GHG reduction benefits resulting from onsite methane capture and destruction are separate from the attributes that are included in a renewable energy

certificate. Both PG&E and Joint Parties also object to the addition of a financial viability assessment as one of the criteria/questions that must be addressed in making a determination that a project, if funded by ClimateSmart, would be additional to what would otherwise occur.

Regarding the prohibition on ClimateSmart funded projects also selling into the RPS, on further review we concur with parties that applicable law eliminates this concern and have changed the resolution accordingly. We note that this change also resolves a number of associated issues and proposals parties included in their comments. As such we do not specifically address those issues and proposals to the extent they are now moot.

With regard to the financial viability assessment, we do not eliminate this requirement. As explained more fully above, we believe such an assessment has an important role in ensuring that ClimateSmart monies support projects that we can be reasonably certain are additional.

FINDINGS

1. PG&E filed AL 2846-G/3075-E requesting permission to contract for manure management projects for its ClimateSmart program.
2. PG&E must demonstrate that there are stringent safeguards against the double counting of GHG emission reductions.
3. CCAR has adopted protocols concerning GHG emission reductions from manure management projects.
4. In AL 2846-G/3075-E, PG&E concluded that its proposal does not result in the double counting of GHG emission reductions.
5. In R.06-02-012, the Commission is considering what attributes are included in a REC.
6. Accounting for GHG emission reductions from manure management projects that produce electricity may be affected by what attributes are included in a REC.
7. Public Utilities Code section 399.12 (h) (2) excludes "any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels" from a REC.
8. It is reasonable to conclude that the onsite capture of methane and its destruction via the manure management projects PG&E seeks to support

with ClimateSmart monies represent one type of treatment benefit created by the utilization of biogas fuels. As such, per P.U. Code section 399.12 (h) (2), these benefits, and any credits or offsets that embody these benefits, are expressly excluded from a REC used for RPS compliance. Therefore, concerns that the subsequent sale into the RPS program of electricity or biogas produced from the captured methane might result in double-counting are rendered moot.

9. PG&E has included safeguards in its proposal to help ensure project additionality, however these safeguards are not sufficiently detailed to adequately assure the Commission that selected projects would not otherwise be pursued.

THEREFORE IT IS ORDERED THAT:

1. PG&E's request presented in AL 2846-G/3075-E is approved with modifications.
2. PG&E shall expand the criteria it uses to evaluate project additionality to specifically assess a project's financial viability absent ClimateSmart or other offset program support, taking into consideration the economic value projects may provide through, for example, the sale of biogas or electricity into the RPS program, the production of electricity to meet onsite load, etc.
3. PG&E shall retain all information used to assess project additionality, including the expanded criteria identified above for a period of no less than 3 years and shall make this information available to Energy Division staff upon request.

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 May 15, 2008; the following Commissioners voting favorably thereon:

_____
Paul Clanon
Executive Director