

**DOCKETED**

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*Comment Received From: Jeremy D. Weinstein, Esq.*  
*Submitted On: 10/28/2019*  
*Docket Number: 16-OIR-05*

**On Comments on Power Source Disclosure - AB 1110 Implementation Rulemaking**

*Additional submitted attachment is included below.*

THE LAW OFFICES OF  
**JEREMY D. WEINSTEIN**  
A PROFESSIONAL CORPORATION

October 28, 2019

Docket Unit  
California Energy Commission  
Docket No. 16-OIR-05  
1516 9th Street, MS-4  
Sacramento, CA 95814  
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Telefacsimile to Dockets at (916) 654-4354

Re: Comments on Power Source Disclosure - AB 1110 Implementation Rulemaking  
Docket No. 16-OIR-05

Ladies and Gentlemen:

Thank you for the opportunity to comment on the California Energy Commission (CEC) Power Source Disclosure (PSD) regulations. I write in my personal capacity as a California citizen, ratepayer, and taxpayer. None of my comments should be connected with any client.

The CEC has spent more than two years developing its positions. I do not write expecting to dissuade the CEC from the direction of its rulemaking.

Rather, I hope to persuade the CEC to provide a proper Final Statement of Reasons (FSOR) by removing or correcting a few items of false factual and legal information in the Initial Statement of Reasons (ISOR), and instead relying solely on applicable law and regulation to support its positions. The FSOR would be a legal precedent, and it would be harmful for the CEC to propagate false factual and legal information when it does not need to do so to support its positions. Saying “because I said so” is better than false information; absent support would do far less damage to renewable energy law and renewable energy markets than would false information.

**The CEC Can and Should Support its Positions with Simple Reliance on Statute and Regulatory Text**

In capitalist economic systems, such as that of the United States, almost all things of value can be commodified and then bought and sold. RECs, and other transacted environmental attributes, can be used to commodify the good deed of creating renewable energy and bringing it onto the grid. The contract that establishes the REC commodity sets forth which renewable, environmental, social and other attributes of the generation and use of renewable energy, and displacement of conventional generating sources, are brought into that commodity to be bought and sold. California has long recognized that the key to the commodification of attributes represented by RECs depends on the state’s statutes and mandatory contract definitions for what is “in” or “not in” a REC. For example, in the California Public Utilities Commission (CPUC)

ClimateSmart Resolution (attachment 1), the CPUC expertly parses through the statutory definition in the Public Utilities Code to determine what attributes are included in a REC, and concludes that certain benefits are expressly excluded.<sup>1</sup>

Another example is the argument supportive of the CEC's PSD position that simply relies on statute and regulation in the August 2, 2017, joint public comments of the CEC, CPUC and CARB to the Oregon Department of Energy (Attachment 2). A further example is the comments of the California Independent System Operator in the same Oregon proceeding (Attachment 3).

Therefore, in the FSOR, the CEC can fully support its legal position with California law and regulation, without having to damage the investment of renewable generators and RECs buyers by gratuitously questioning the long-ago resolved legalities of, and property rights in, RECs, as it proposes to do in the ISOR.

**The CEC Should Delete the False and Overruled Material in the ISOR, Which It Does Not Need to Support Its Position**

Rather than use textual analysis of statute and regulation as the CPUC did in the ClimateSmart Resolution, and the CEC, CPUC and CARB jointly did in their Oregon DOE comments, which is all the CEC needs to do in order to support its position, the ISOR argues that while contract paths for greenhouse gas (GHG) emission characteristics of electricity imported into California under the California Air Resources Board (CARB)'s cap-and-trade and Mandatory Reporting Regulation (MRR) are legitimate, the contract paths for renewable energy certificates (RECs) supported by Certificates created by the Western Renewable Energy Generation Information System (WREGIS) are not. But both can't be true. Either contract paths for RECs and GHG are both legitimate, or they are both illegitimate. In the California RPS, the CPUC decided that REC contract paths are legitimate.<sup>2</sup> Under MRR, CARB decided contract paths for specified sources are legitimate.<sup>3</sup> Unfortunately the ISOR parrots statements by The Utility Reform Network (TURN) that are disprovable by the mildest due diligence, and prominently cites a fringe academic whose theories were long ago disposed of by the CPUC<sup>4</sup> after airing and debate.

None of this is necessary for the CEC to support its position. There's no need for the CEC to establish legal precedent that dispossesses renewable resource owners and REC purchasers from the value of their RECs. And the CEC should not do it. As a matter of administrative law, the CPUC's Decisions 08-08-028, 10-03-021, and 11-01-025 should not be reopened years later by the CEC in a different docket by undermining them in a CEC FSOR.<sup>5</sup>

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<sup>1</sup> CPUC Resolution G-3410, finding 8.

<sup>2</sup> E.g., CPUC D. 08-08-028, D. 10-03-021, and D. 11-01-025.

<sup>3</sup> MRR §95111(a)(4).

<sup>4</sup> In, e.g., CPUC D. 08-08-028, D. 10-03-021, and D. 11-01-025.

<sup>5</sup> Just as it was unseemly for the CPUC to undermine and appear to be in open warfare with the CEC in 2008 over the meaning of "firming and shaping" in CEC rules under the prior RPS statute in connection with a Klickitat power purchase agreement in connection with CPUC Resolution E-4170.

### *Development of RECs.*

The CEC should fix the incorrect statement on p. 11 of the ISOR, “Renewable energy advocates developed the concept of RECs in the late 1990s as a method for corporations and other entities to support the development of renewable energy without directly investing in renewable generators.” As someone who was there and participated at the time, I can say that this is not what I witnessed.<sup>6</sup> RECs developed to allow renewable resource *consumption* by consumers that do not have ready access to renewable electricity due to grid structure or distant location of resources. RECs helped wind resources be sited where there was the most wind, for the new, experimental and expensive machines to be most cost-effectively deployed. It is this same foundational function of RECs that now enables a wind farm in Wyoming to generate renewable energy and transfer the right to make claims about that renewable energy to a utility serving the California consumer. Later came concepts of “financial additionality” or “investment additionality” that leaked into renewable resource markets from Kyoto Protocol flexible mechanism debates,<sup>7</sup> adding to RECs a signifier of an addition to price that rewards development. This has some continued presence in REC markets, but it did not drive the development of RECs as a concept.

### *Financial Additionality*

The CEC should delete the ISOR statement on page 12 that “unbundled RECs do not support the development of new renewable resources” because is not true, does not make sense, and contradicts the ISOR statement quoted above. Anything that brings money to a resource promotes the development of that resource. Many resources are developed with a single power purchase agreement that sells the entire energy and RECs on a bundled basis, and many resources are developed with less than the entire energy and RECs output sold on a bundled basis, with part of the facility being “merchant” and relying on revenue from sale of both the energy and unbundled RECs.

### *FTC Green Guide Compliance*

The CEC should delete the statement on p. 11 of the ISOR: “The Utility Reform Network pointed out that unbundled RECs may be sourced from generators serving load on-site (such as a

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<sup>6</sup> E.g., Weinstein, *Weather Derivatives for Environmental Risk Management*, Energy & Power Risk Management, Sep. 2001 (avail. at <http://docsjweinsteinlaw.com/pdfs/EPRM%2001%20Sep%20Weather.PDF>); Weinstein, *Carbon-Denominated Weather Swaps*, Environmental Finance, Nov. 2001 (avail. at <http://docsjweinsteinlaw.com/pdfs/ef11ema27.pdf>); Weinstein, *A Western Renewables Marketplace*, Environmental Finance, Apr. 2004 (formerly in course syllabi at Boalt Hall law school) (avail. at <http://docsjweinsteinlaw.com/pdfs/ef4ema15.pdf>); Weinstein and Chartier, *Standardizing Renewable Energy Certificates Contracting*, Environmental Finance, May 2005 (avail. at [http://docsjweinsteinlaw.com/pdfs/ef5ema\\_p21.pdf](http://docsjweinsteinlaw.com/pdfs/ef5ema_p21.pdf)).

<sup>7</sup> E.g., Environmental Defense Fund, *Cooperative Mechanisms Under the Kyoto Protocol* p. 39 (1998) (arguing against); Ertel & Egelston, *COP 6- Big Decisions or Big Disappointment*, Environmental Finance (Jun. 2000); Commodity Futures Trading Commission, *Order Finding That the Carbon Financial Instrument Contract Offered for Trading ... Does Not Perform a Significant Price Discovery Function*, 75 Fed. Reg. 23686 at 23689 fn. 18 (April 28, 2010) (citing comment letter I wrote).

rooftop installation on a home or business) in which the owners of the generator might describe the site as being served by renewable energy while the purchaser of the unbundled RECs would make the same claim on the same energy.” Any such claim would be illegal under federal law. Section 5 of the Federal Trade Commission Act provides for imprisonment and fines for violation. FTC regulation §260.15 example 5 specifically calls out and prohibits the activity TURN “pointed out”; TURN just paraphrased the FTC’s text.<sup>8</sup> CEC policy can be consistent with Federal law - no on-site generators reselling double-claimed RECs - and also assume compliance with federal law by the lawful owners of lawful RECs. “Someone could violate these rules by doing something that’s illegal” is too vapid to be an appropriate supporting argument in an FSOR.

### *Property Rights in RECs*

The CEC should delete the statement on page 42 of the ISOR: “In public comments, TURN contends ‘there is no federally recognized property right associated with RECs ... . FERC has repeatedly held that RECs exist solely as a creation of state law and that state law determines all relevant rules relating to ownership and compliance value. [TURN comment letter cites *American Ref-Fuel* 105 FERC ¶61,004 (2003); *WSPP* 139 FERC ¶ 61,061 (2012)]”, because TURN’s contention is untruthful.

In one of TURN’s own cited precedents,<sup>9</sup> FERC says that RECs are “products” (not “services”) that are “delivered” (not “performed”) when sold. As unbundled RECs were found by FERC to be outside of its jurisdiction in that very same precedent,<sup>10</sup> FERC’s views on whether state or federal law determines all relevant rules relating to ownership and compliance value are, according to FERC, irrelevant. The principal federal regulator of commodities such as RECs, the Commodity Futures Trading Commission (CFTC), says RECs are “non-financial commodities.”<sup>11</sup> Another federal agency, the Federal Trade Commission (FTC) long ago stated that RECs represent property rights.<sup>12</sup> This means there are federally recognized property rights

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<sup>8</sup> "Example 5: A toy manufacturer places solar panels on the roof of its plant to generate power, and advertises that its plant is “100% solar-powered.” The manufacturer, however, sells renewable energy certificates based on the renewable attributes of all the power it generates. Even if the manufacturer uses the electricity generated by the solar panels, it has, by selling renewable energy certificates, transferred the right to characterize that electricity as renewable. The manufacturer’s claim is therefore deceptive. It also would be deceptive for this manufacturer to advertise that it “hosts” a renewable power facility because reasonable consumers likely interpret this claim to mean that the manufacturer uses renewable energy. It would not be deceptive, however, for the manufacturer to advertise, “We generate renewable energy, but sell all of it to others.”” FTC, *Guidelines for the Use of environmental Marketing Claims*, 77 Fed. Reg. at 62131-2 (Oct. 11, 2012).

<sup>9</sup> FERC, *WSPP, Inc., Order Conditionally Accepting Schedule R*, 139 FERC ¶ 61,061 (2012) para. 5. I very actively participated in the WSPP’s drafting of Schedule R.

<sup>10</sup> *WSPP, Inc.* 139 FERC ¶ 61,061 at para. 18.

<sup>11</sup> CFTC & SEC, *Joint Final Rule; Interpretations; Request for Comment on an Interpretation, Further Definition of “Swap,”* ..., 77 Fed. Reg. 48,208 at 48233-35 (Aug. 13, 2012) (citing, among others, comment letters I co-wrote); CFTC, *Final Rule, Adaptation of Regulations to Incorporate Swaps*, 77 Fed. Reg. 66288 at 66293-94 (Nov. 2, 2012) (citing, among others, comment letter I co-wrote). See also Weinstein & Berendt, *The Nature of the Thing*, Environmental Finance (Jun. 2011) pp. 20-21 (avail. at [http://docsjweinsteinlaw.com/pdfs/EF0611\\_pp,20-21.pdf](http://docsjweinsteinlaw.com/pdfs/EF0611_pp,20-21.pdf)).

<sup>12</sup> “Some generators who cannot sell all of their renewable energy at a sufficient premium in their “home” market, therefore, may find it advantageous to split their output into two products: The electricity itself and certificates

associated with RECs. Separately, there would be no reason why American Ref-Fuel, the party before FERC in the other TURN precedent, would seek from FERC “ownership” of RECs from the renewable energy it had sold under a must-take PURPA QF contract unless it was property that it wanted to own and extract value from. And despite TURN’s false contention, that very precedent found that RECs are property that is owned, traded and sold.<sup>13</sup> Even TURN’s favorite fringe academic contradicts TURN’s false premise that RECs aren’t property.<sup>14</sup>

There are aspects of the property rights inherent in RECs that could present legal issues in some states, such as transferability of rights created by laws passed after the assignment of the REC, an issue known as “assignment of expectancies.” As part of a working group at the inception of WREGIS, I participated in the legal analysis of this issue that concluded that such issues are not presented under California law and that these are very likely assignable as part of a REC.<sup>15</sup>

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(RECs) representing the renewable attributes of that electricity. Under this second approach, generators sell their electricity at market prices applicable to conventionally-produced power. Generators then charge for the electricity’s renewable attribute separately by selling certificates to individuals and business purchasers across the country who use them to characterize the conventional electricity they buy as renewable.<sup>9</sup> [9 The **certificate represents a property right** in the technological and environmental attributes of renewable energy. The precise nature of the attributes represented by a REC, however, continues to be a matter of discussion. Generally, one REC represents the right to describe one megawatt of electricity as “renewable.” Currently, there is no uniform or mandatory definition of a REC.] The REC market, therefore, helps renewable energy generators by significantly expanding the number of potential renewable energy purchasers, possibly avoiding transmission costs associated with traditional contracts, and helping to ameliorate supply and demand problems associated with the intermittent operation of some renewable energy facilities (e.g., solar power facilities).” FTC, *Guides for the Use of Environmental Marketing Claims; Carbon Offsets and Renewable Energy Certificates; Public Workshop*, 72 Fed. Reg. 66904 at 66904, col. 2 (Nov. 27, 2007).

<sup>13</sup> *American Ref-Fuel* 105 FERC ¶61,004 (2003), para. 23: “They exist outside the confines of PURPA. PURPA thus does not address the ownership of RECs. And the contracts for sales of QF capacity and energy, entered into pursuant to PURPA, likewise do not control the ownership of the RECs (absent an express provision in the contract). States, in creating RECs, have the power to determine who owns the REC in the initial instance, and how they may be sold or traded; it is not an issue controlled by PURPA.”

<sup>14</sup> See also Gillenwater, et al. (p. iii identifies Gillenwater as the REC contributor), WWF Germany, *Making Sense of the Voluntary Carbon Market: A Comparison of Carbon Offset Standards* (2008): Appendix A: “Renewable Energy Certificates (RECs) are an environmental commodity” p. 97.

<sup>15</sup> Cal. Civ. Code §954 provides: “A thing in action, arising out of the violation of a right or out of an obligation, may be transferred by the owner.” Civ. Code §1458 says: “A right arising out of an obligation is the property of the person to whom it is due, and may be transferred as such.” See *Belden v. Farmers and Mechanics’ Bank of Healdsburg*, 16 Cal. App. 452, 459 (1911) (lessee’s right to reimbursement from lessor “was a chose in action, or a right to recover money by a judicial proceeding” and hence assignable); *Grain v. Menzies*, 38 Cal. 514, 520 (1869) (consent of obligor not required for assignment of claim). Civ. Code §1044 states: “Property of any kind may be transferred, except as otherwise provided by this Article.” See *Johnson v. Twentieth Century Fox Film Corp.*, 82 Cal. App. 2d 796, 813-14 (1947) (“Many items of property are assignable under [§]1044, which were not assignable at common law.”). Only “a mere possibility, not coupled with an interest cannot be transferred.” (Civ. Code §1045; but see *Bridge v. Kendon*, 163 Cal. 493, 496 (1912) (even the mere possibility of a future inheritance is assignable notwithstanding §1045); *Bibend v. Liverpool & London Fire & Life Inc. Co.*, 30 Cal. 78, 86 (1868) (courts will enforce “assignments of trusts and possibilities of trusts, and contingent interests and expectancies, ... as well as ... ‘things which have no present actual or potential existence, but rest in mere possibility ... .’”). California Courts will enforce assignment of all types of rights and property (*U.S. v. Stonehill*, 83 F.3d 1156, 1159-60 (9<sup>th</sup> Cir. 1996) (lawsuit against California municipality for depressing value of property through illegal zoning procedures held assignable); *Hopkins v. Contra Costa County*, 106 Cal. 566, 572 (1895) (right to recover, from insolvent county road

It is inappropriate and harmful to discuss federal deference to California's determination of property rights in RECs, while at the same time incorrectly claiming there isn't any federal property right. The reader might ask how this could be relevant, as it implies that there is no California property right in RECs. It would be catastrophic to RECs and investment in renewable resources that create RECs, and the value paid by the purchasers of the RECs, including, for example, the \$42 billion in renewable resource contracts currently at issue in the Pacific Gas & Electric bankruptcy, for the CEC to publish an official document that questioned property rights in, and therefore ownership of, RECs. It is also completely unnecessary for the CEC to do so to support its positions in the PSD.

I therefore strongly encourage the CEC to purge from its FSOR all the uninformed and incorrect statements disparaging the real and valuable property rights that owners of renewable resources and purchasers of RECs have in those RECs.

### ***RPS Adjustment***

On pp. 17-18 of the ISOR, the CEC says "under MRR, all firm-and-shaped electricity imported by a retail supplier or on its behalf is assigned the GHG intensity of the substitute power." This is misleading. Although CARB staff is at pains to disassociate the RPS Adjustment from firm-and-shaped imports, in fact most firm and shaped power importers take the RPS Adjustment, and even if the energy itself still keeps the substitute energy's GHG value, in fact there is a credit of the unspecified factor. The RPS Adjustment for a CEC RPS resource requires retirement of the matching REC by the California RPS compliance entity.<sup>16</sup> An RPS Adjustment import can be supported by specified energy; specified energy from a renewable resource or highly efficient combined cycle gas plant grants an RPS Adjustment of the CARB's unspecified emissions factor and has a CARB allowance cost of zero or that for the efficient gas plant. In other words, the matched firm-and-shaped REC, which is retired by the RPS compliance entity, creates an import emissions factor profit for the importing entity, with negative GHG for the imported substitute electricity, thus demonstrating use of a REC as a solid store of GHG reduction value.

### ***Further Items***

I understand that the Center for Resource Solutions (CRS) will provide a detailed and academically robust response. I do not necessarily endorse all of what CRS has to say, but I do

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fund, costs of work on road running through owner's land held assignable)), even if the rights at issue call themselves unassignable. See *Nat'l Bank of D.O. Mills & Co. v. Herold*, 74 Cal. 603, 608 (1888) (rights to payment under non-negotiable California State Controller's warrant assignable); *Trubowitch v. Riverbank Canning Co.*, 30 Cal. 2d 335, 339 (1947) ("It is established that a provision in a contract or a rule of law against assignment does not preclude the assignment of money due or to become due under the contract."); Civ. Code §1459 (non-negotiable instruments transferred by endorsement). California law strongly favors assignments of rights (*Robert H. Jacobs, Inc. v. Westoaks Realtors, Inc.*, 159 Cal. App. 3d 637, 645 (1984) ("California law evidences a policy in favor of the free transferability of all types of property."); *Collier v. Oelke*, 202 Cal. App. 2d 843, 845-47 (1962) (citing broad statutory language favoring assignments, holds easements in gross are assignable)).

<sup>16</sup> §95852(b)(4)(B).



respect CRS and its integrity, as well as the integrity of its analysis. I encourage review of CRS's sources and arguments. CRS seeks to protect these markets in order to protect the property rights of owners and purchasers of RECs- and by protecting property rights, encourage investment in renewable energy.

### **"New" Considerations for Policies Disfavoring Out of State Renewable Energy**

The three "product content category" structure of California's current RPS statute, as well as CEC and CPUC rulemakings, specifically disfavor out of state resources. The CEC's position in the PSD rulemaking is consistent policy. Just as I urged the CEC above to excise from the ISOR old, defeated arguments with respect to RECs, I will not advance defeated arguments against disfavoring out of state resources. I will, however, note two recent substantial changes in facts and circumstances that the CEC may wish to weigh and evaluate.

### **Federalism**

At many points in the development of the California RPS and cap-and-trade regulations, I wrote comments or spoke at workshops, urging staff and the respective agency to develop strong regulation through maximum respect for federal requirements, including those in the US Constitutional and Federal Power Act. Such compliance protects the regulation from subsequent challenge, and a successful challenge many years into a regulatory program can have drastic, damaging effects on that program.

Five days ago, the U.S. Department of Justice announced it had filed a "Lawsuit Against State of California for Unlawful Cap and Trade Agreement with the Canadian Province of Quebec," and that "the defendants have pursued or are attempting to pursue an independent foreign policy in the area of greenhouse gas regulation. The Constitution prohibits states from making treaties or compacts with foreign powers, yet California entered into a complex, integrated cap-and-trade program with the Canadian province of Quebec in 2013 without congressional approval."<sup>17</sup>

In this docket, the CEC faces different federalism issues, including those presented by the commerce clause and Federal Power Act, by disfavoring out of state resources. It would be naive not to expect the Department of Justice to bring more actions respecting California environmental policy.<sup>18</sup> California has been conducting federalist policy in its climate change and renewable portfolio standard regulation that it could have better investigated for compliance. California still has the opportunity to investigate and re-evaluate. I encourage the CEC to obtain an objective, expert, double blind analysis of the commerce clause and Federal Power Act issues presented by rules disfavoring out of state resources. California is better off and its programs are stronger when designed to comply with federal law.

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<sup>17</sup> <https://www.justice.gov/opa/pr/united-states-files-lawsuit-against-state-california-unlawful-cap-and-trade-agreement>

<sup>18</sup> See example of another vulnerability at 142 FERC ¶ 61,111.

### Wildfires

Core to the agenda of many advocates for California policies that disfavor out of state resources, including the “Product Content Categories” in the current iteration of the RPS that require minimum use of within-California renewable resources, is more “green” jobs for the construction of more transmission infrastructure in California. As a result, for the past decade, California has deployed limited transmission-related talent and resources to build new transmission, rather than fix or underground existing transmission. As documented by my attached comment letter in a CEC RPS document (Attachment 4), TURN was very active in pressuring the CEC to change its regulations to plug any leak in the disfavoring of out of state renewable energy, in order to promote within-California transmission construction. Although in my letter I discussed how California official findings meant that more transmission would mean more leukemia in areas with the transmission builds, it now seems that misdirection of limited transmission-related resources away from preventative actions on existing lines to build more lines that can spark fires, has had and will continue to have the much worse health effect on Californians of death and destruction from wildfires and blackouts.

The proposed PSD rules will inhibit the use of “Product Content Category 2,” the firming and shaping of out of state resources, by making such transactions less desirable to many potential purchasers, such as the Community Choice Aggregators who wish to promote “zero Carbon” products to their customers. The CEC should evaluate whether it wants to further exacerbate this misdirection of California’s limited transmission-related resources away from repairs to more builds, as TURN urges.

The politically expedient narrative that wildfires from transmission infrastructure are all the fault of greedy and negligent California electric utilities omits the most salient facts. It is not surprising that California’s energy policy makers would seek to flee responsibility for the outcomes of California’s energy policies.

That doesn’t change the tragic reality to which California’s energy policies have brought us and within which the CEC must make its PSD rulemaking. I am typing this letter on a Sunday wondering if I will be able to submit it on time due to the blackouts that PG&E has implemented seeking to avoid energized transmission and distribution lines touching brush and starting a fire in the high winds. The blackout map shows local hospitals without power. My home in Walnut Creek is blacked out, a wildfire is burning in Lafayette, two miles from my office, where I am typing this, and I hear a lot of sirens. Assigning workers to renewable resource transmission construction, as promoted by TURN and others, rather than to transmission line maintenance and undergrounding, was a serious mistake and very much not in the best interests of California residents. The CEC should consider how much farther it wants to press the implementation of this far-too-obviously failed policy.

Weinstein comments on Docket No. 16-OIR-05  
October 28, 2019  
Page 9

Thank you for the opportunity to comment.

Yours truly,

A handwritten signature in blue ink, consisting of several overlapping, sweeping strokes that form the name 'Jeremy D. Weinstein'.

Jeremy D. Weinstein

cc: California State Assembly Member Rebecca Bauer-Kahan  
California State Senator Steven M. Glazer  
U.S. Congressman Mark DeSaulnier

ATTACHMENT 1

CPUC CLIMATE SMART RESOLUTION G-3410/ADVICE LETTER 2846-G

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**ENERGY DIVISION**

**RESOLUTION G-3410  
June 12, 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.

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**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<sub>2</sub>).
- 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.<sup>1</sup> That notwithstanding, P.U. 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. In this resolution, we have determined 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 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

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<sup>1</sup> 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).

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.<sup>2</sup> 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).<sup>3</sup> Protocols are basically a set of written instructions used for standardizing the measurement and reporting of GHG emission reductions from offset projects.<sup>4</sup> 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:

- 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.<sup>5</sup>

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<sup>2</sup> D.06-12-032, Ordering Paragraph 17.

<sup>3</sup> 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.

<sup>4</sup> Protocols can also be designed to report the GHG emissions resulting from certain activities (e.g., cement production).

<sup>5</sup> D.06-12-032, p.38 and p. 42 *mimeo* and Ordering Paragraph 28.

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."<sup>6</sup>

3) Offset projects eligible for funding must guarantee "additionality".<sup>7</sup>

**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.<sup>8</sup> These projects decrease GHG emissions through the capture and combustion of methane (or biogas) so that less harmful CO<sub>2</sub> 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.

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

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<sup>6</sup> D, 06-12-032, Ordering Paragraph 30.

<sup>7</sup> D.06-12-032, *mimeo*, p. 42.

<sup>8</sup> D. 06-12-032, *mimeo*, pp. 40-2.



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)<sup>9</sup>

**In R.06-02-012, the Commission is currently considering what environmental attributes are included in RECs used for compliance with the California RPS.**

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.<sup>10</sup> 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 (p. 15).

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<sup>9</sup> The ClimateSmart program has also been referred to as the Climate Protection Tariff (CPT).

<sup>10</sup> 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)<sup>11</sup> and the "Livestock Project Certification Protocol" (Certification Protocol).<sup>12</sup>

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.<sup>13</sup> 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.<sup>14</sup> 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.

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<sup>11</sup> Go to:

[http://www.climateregistry.org/docs/PROTOCOLS/CCAR\\_Livestock\\_Project\\_Reporting\\_Protocol\\_June\\_2007.pdf](http://www.climateregistry.org/docs/PROTOCOLS/CCAR_Livestock_Project_Reporting_Protocol_June_2007.pdf).

<sup>12</sup> Go to:

[http://www.climateregistry.org/docs/PROTOCOLS/CCAR\\_Livestock\\_Project\\_Certification\\_Protocol\\_June\\_2007.pdf](http://www.climateregistry.org/docs/PROTOCOLS/CCAR_Livestock_Project_Certification_Protocol_June_2007.pdf).

<sup>13</sup> 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.)

<sup>14</sup> 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.<sup>15</sup>

**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.<sup>16</sup>

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.

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<sup>15</sup> Go to: <http://www.arb.ca.gov/ag/manuremgmt/protocols/protocols.htm>.

<sup>16</sup> 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 and natural gas 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.

We do, however, note that projects that sell energy into the RPS program, including via feed-in tariffs, are subject to a number of standard terms and conditions (STCs). STC 2 includes the following language:

“If the project is a biomass or landfill gas facility and Seller receives any tradable Green Attributes based on greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the project.”<sup>17</sup>

Nothing in this resolution negates or otherwise changes the Seller’s obligation pursuant to this STC to transfer sufficient Green Attributes to the Buyer if the

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<sup>17</sup> See D.08-04-009.

Seller receives tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage and the transfer is necessary to ensure there are zero net emissions associated with the production of electricity. Should a ClimateSmart-funded project sell either electricity or biogas to an RPS obligated-entity as, or for the production of renewable energy, it would be subject to this requirement.<sup>18</sup>

**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.<sup>19</sup> Furthermore, PG&E has entered into

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<sup>18</sup> If, under the GHG regulatory scheme to which the RPS obligated entity is subject, the combustion of biogenic methane has no net emissions associated with it, this provision would not appear to impose any obligation on a manure management project selling methane or electricity produced from that methane into the RPS program.

<sup>19</sup> In D.07-07-027 we determined that projects that sell energy under a feed-in tariff "may not simultaneously obtain benefits from both this tariff and the SGIP, net-metering programs, California Solar Initiative, or similar program."

*Footnote continued on next page*

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."<sup>20</sup> 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?

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

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(COL 18) The statement in this resolution, that a project that obtains ClimateSmart funding may also be eligible to sell energy under a feed-in tariff, is consistent with this determination and does not represent a departure from that restriction. The programs specifically mentioned in D.07-07-027 provide financial support for the production of electricity and are paid for by ratepayers generally. ClimateSmart is not a similar program. First, ClimateSmart does not provide financial support for the production of electricity, rather the program pays for greenhouse gas emission reductions, or offsets. Here, while the methane collected may eventually be used to produce RPS eligible energy, PG&E's program, per its advice letter, will not pay for the additional infrastructure necessary to generate electricity (beyond what is required for methane capture and destruction). Second, the financial support provided to a given project does not come from ratepayers generally. ClimateSmart funds used to support specific projects, are not part of PG&E's mandatory rates, rather, they are incurred on a voluntary basis by customers interested in offsetting the greenhouse gas emissions attributed to their electricity and natural gas consumption. Those customers who voluntarily contribute to ClimateSmart receive a separate, non-energy product. .

<sup>20</sup> PG&E letter dated January 11, 2008 to ED staff.

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.<sup>21</sup> 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 that the project would fail the additionality test. Further, if the project hosts are assumed to not be economically rational, then it is unclear why ClimateSmart or other

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<sup>21</sup> As used in this context, "other offset program support" specifically refers to payments received for the express purpose of purchasing claims to GHG emission reductions attributable to the project.



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. In addition there may be project-specific circumstances that render certain potential revenue streams moot for purposes of evaluating a given project's financial viability. For example, if it is unlikely that a particular manure management project will ever sell energy or biogas into the RPS program, due to the size and location of the project, then in assessing the financial viability of that project it would be reasonable for PG&E to assume the RPS revenue stream has a \$0 value, provided PG&E documents why it believes doing so is appropriate.

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.
10. PG&E should expand its additionality tests/criteria to specifically assess whether a project would be financially viable absent ClimateSmart funds 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.

**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 5 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 June 12, 2008; the following Commissioners voting favorably thereon:

/s/ Paul Clanon

Paul Clanon  
Executive Director

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

June 27, 2007

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

(Pacific Gas and Electric Company ID U 39 M)

Public Utilities Commission of the State of California

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

**Purpose**

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

**Background**

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

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

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

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

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

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

### **Discussion of Protocol**

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

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

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

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

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

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

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

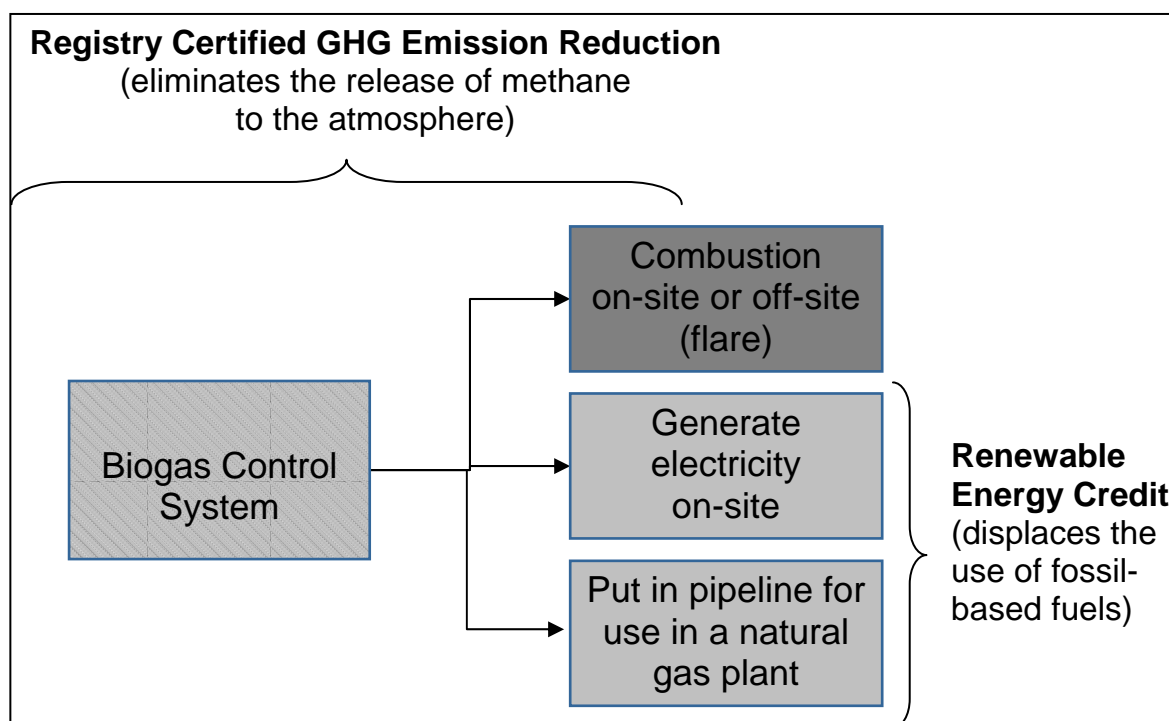
<sup>7</sup> Ibid, page 4

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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



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

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

### **Protests**

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

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

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

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

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

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

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

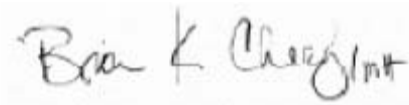
### **Effective Date**

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

**Notice**

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

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



Vice President, Regulatory Relations

Attachments

cc: Service List A.06-01-012

# CALIFORNIA PUBLIC UTILITIES COMMISSION

## ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39)**

Utility type:

ELC       GAS  
 PLC       HEAT       WATER

Contact Person: Megan Hughes

Phone #: (415) 973-1877

E-mail: mehr@pge.com

EXPLANATION OF UTILITY TYPE

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

(Date Filed/ Received Stamp by CPUC)

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

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

Keywords (choose from CPUC listing): Compliance, Contracts

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

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

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

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

Resolution Required?  Yes  No

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

No. of tariff sheets: 0

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

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

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

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

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

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:**

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

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

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

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

ABAG Power Pool  
Accent Energy  
Aglet Consumer Alliance  
Agnews Developmental Center  
Ahmed, Ali  
Alcantar & Kahl  
Ancillary Services Coalition  
Anderson Donovan & Poole P.C.  
Applied Power Technologies  
APS Energy Services Co Inc  
Arter & Hadden LLP  
Avista Corp  
Barkovich & Yap, Inc.  
BART  
Bartle Wells Associates  
Blue Ridge Gas  
Bohannon Development Co  
BP Energy Company  
Braun & Associates  
C & H Sugar Co.  
CA Bldg Industry Association  
CA Cotton Ginners & Growers Assoc.  
CA League of Food Processors  
CA Water Service Group  
California Energy Commission  
California Farm Bureau Federation  
California Gas Acquisition Svcs  
California ISO  
Calpine  
Calpine Corp  
Calpine Gilroy Cogen  
Cambridge Energy Research Assoc  
Cameron McKenna  
Cardinal Cogen  
Cellnet Data Systems  
Chevron Texaco  
Chevron USA Production Co.  
City of Glendale  
City of Healdsburg  
City of Palo Alto  
City of Redding  
CLECA Law Office  
Commerce Energy  
Constellation New Energy  
CPUC  
Cross Border Inc  
Crossborder Inc  
CSC Energy Services  
Davis, Wright, Tremaine LLP  
Defense Fuel Support Center  
Department of the Army  
Department of Water & Power City  
DGS Natural Gas Services

Douglass & Liddell  
Downey, Brand, Seymour & Rohwer  
Duke Energy  
Duke Energy North America  
Duncan, Virgil E.  
Dutcher, John  
Dynergy Inc.  
Ellison Schneider  
Energy Law Group LLP  
Energy Management Services, LLC  
Exelon Energy Ohio, Inc  
Exeter Associates  
Foster Farms  
Foster, Wheeler, Martinez  
Franciscan Mobilehome  
Future Resources Associates, Inc  
G. A. Krause & Assoc  
Gas Transmission Northwest Corporation  
GLJ Energy Publications  
Goodin, MacBride, Squeri, Schlotz &  
Hanna & Morton  
Heeg, Peggy A.  
Hitachi Global Storage Technologies  
Hogan Manufacturing, Inc  
House, Lon  
Imperial Irrigation District  
Integrated Utility Consulting Group  
International Power Technology  
Interstate Gas Services, Inc.  
IUCG/Sunshine Design LLC  
J. R. Wood, Inc  
JTM, Inc  
Luce, Forward, Hamilton & Scripps  
Manatt, Phelps & Phillips  
Marcus, David  
Matthew V. Brady & Associates  
Maynor, Donald H.  
MBMC, Inc.  
McKenzie & Assoc  
McKenzie & Associates  
Meek, Daniel W.  
Mirant California, LLC  
Modesto Irrigation Dist  
Morrison & Foerster  
Morse Richard Weisenmiller & Assoc.  
Navigant Consulting  
New United Motor Mfg, Inc  
Norris & Wong Associates  
North Coast Solar Resources  
Northern California Power Agency  
Office of Energy Assessments  
OnGrid Solar  
Palo Alto Muni Utilities

PG&E National Energy Group  
Pinnacle CNG Company  
PITCO  
Plurimi, Inc.  
PPL EnergyPlus, LLC  
Praxair, Inc.  
Price, Roy  
Product Development Dept  
R. M. Hairston & Company  
R. W. Beck & Associates  
Recon Research  
Regional Cogeneration Service  
RMC Lonestar  
Sacramento Municipal Utility District  
SCD Energy Solutions  
Seattle City Light  
Sempra  
Sempra Energy  
Sequoia Union HS Dist  
SESCO  
Sierra Pacific Power Company  
Silicon Valley Power  
Smurfit Stone Container Corp  
Southern California Edison  
SPURR  
St. Paul Assoc  
Sutherland, Asbill & Brennan  
Tabors Caramanis & Associates  
Tecogen, Inc  
TFS Energy  
Transcanada  
Turlock Irrigation District  
U S Borax, Inc  
United Cogen Inc.  
URM Groups  
Utility Resource Network  
Wellhead Electric Company  
White & Case  
WMA

ATTACHMENT 2

JOINT COMMENTS OF THE CEC, CPUC AND CARB ON THE OREGON DEPARTMENT  
OF ENERGY WORKSHOP ON RECS, THE OREGON RENEWABLE PORTFOLIO  
STANDARD, AND ENERGY IMPORTS INTO CALIFORNIA VIA THE WESTERN  
ENERGY IMBALANCE MARKET



## CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512  
[www.energy.ca.gov](http://www.energy.ca.gov)

## CALIFORNIA AIR RESOURCES BOARD

1001 I STREET  
SACRAMENTO, CA 95814-0100  
[www.arb.ca.gov](http://www.arb.ca.gov)

## CALIFORNIA PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298  
[www.cpuc.ca.gov](http://www.cpuc.ca.gov)

August 2, 2017

Rebecca Smith, Senior Energy Policy Analyst  
Oregon Department of Energy  
[rebecca.smith@oregon.gov](mailto:rebecca.smith@oregon.gov)

RE: Public Comment on June 15, 2017 Workshop on RECs, the Oregon Renewable Portfolio Standard, and energy imports into the California via the western Energy Imbalance Market

Dear Ms. Smith:

The California Air Resources Board (CARB), the California Energy Commission (Energy Commission) and the California Public Utilities Commission (CPUC) appreciate the opportunity to provide public comment in response to the Oregon Department of Energy request for comment following the June 15, 2017 workshop focused on Oregon's treatment of renewable energy transacted through the California Independent System Operator's (California ISO) western Energy Imbalance Market (EIM).

California looks forward to further discussion with the Oregon Department of Energy regarding the opportunities that the EIM market presents the two states. We are limiting these comments to a discussion of the definition and usage of Renewable Energy Credits (RECs) in our Renewables Portfolio Standard (RPS) program and clarification of the treatment of renewable electricity by CARB in the context of our Cap-and-Trade Program. The integrity of both markets and their accounting tools are of paramount importance to achieving our respective greenhouse gas (GHG) emissions reduction goals. As you know, California and Oregon are also both members of the Under 2 Coalition and share an interest in achieving the GHG emissions reductions that each state has pledged to achieve under the Under 2 Memorandum of Understanding. We look forward to continued discussions to ensure both states meet their climate goals without double counting RECs, but allowing for maximum flexibility in the electricity and RPS markets.

California has several landmark climate and energy policies and programs that aim to advance renewable energy and reduce GHG emissions in California, including the California RPS, the Mandatory Greenhouse Gas Reporting Regulation (MRR), and the California Cap-and-Trade Program. All of these programs adopt the same definition of a REC.

Public Utilities Code section 399.12 (h) defines a “Renewable energy credit” as:

“a certificate of proof associated with the generation of electricity from an eligible renewable energy resource, issued through the accounting system established by the Energy Commission pursuant to Section 399.25, that one unit of electricity was generated and delivered by an eligible renewable energy resource.”

It goes on to specify that a REC:

“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.”

The definition of a REC reflects the renewable and environmental attributes identified by the California Public Utilities Commission (CPUC) Decision 08-08-028, which states:

“A REC includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, including any avoided emission of pollutants to the air, soil or water; any avoided emissions of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, or any other greenhouse gases...” Decision 08-08-028 further provides, “[a]lthough the avoided GHG emissions attribute is included in the definition of the REC, under a cap, the avoided GHG emissions attribute should ... have zero value” (p.23). Accordingly, the REC may not be used for GHG emissions reduction purposes.

CARB has codified in the design of the California Cap-and-Trade Program that a REC does not confer avoided emissions value under the Program, as the total GHG emissions allowed under the cap are fixed. If renewable energy is generated rather than fossil-fuel based energy, emissions are not avoided because the cap on emissions does not change. Rather, the generation of renewable energy instead of fossil-fuel based energy makes available allowances that can be used by other entities.

Under California’s MRR and the Cap-and-Trade Program, entities that import electricity into California from specified sources must report the electricity associated with those

Ms. Rebecca Smith

August 2, 2017


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imports to CARB, irrespective of whether the imported electricity is also associated with RECs. CARB then assigns emission factors to specified resources based on fuel type. For most renewable resources, the emission factor is zero. California's Cap-and-Trade Program does not require that RECs be retired for specified source imports for compliance with the Program, nor does it consider that the assignment of a zero emission factor constitutes avoided emissions or a claim on a REC. Through the reporting of actual emissions of imported electricity from renewable electricity resources, the Cap-and-Trade Program recognizes that zero-emission electricity was brought into California to serve California load. Electricity imported via EIM is electricity from a specified source and is reported as such to CARB. In the future, if Oregon establishes an emissions trading program, California and Oregon will need to coordinate to ensure there is accurate accounting of GHG emissions for flows of electricity between the two states.

Under California's RPS, renewable electricity from facilities interconnected to the grid inside or outside of California may only count toward California's RPS requirements if a REC is retired and reported. Electricity transacted into EIM is treated the same as other electricity in California for purposes of RPS and is not subject to additional eligibility restrictions.

California recognizes the benefits to California and other states of the EIM market and will continue to work to support the continued development of EIM while upholding the integrity of its climate and energy programs.

Sincerely,



Courtney Smith  
Deputy Director, Renewable Energy Division  
California Energy Commission



Rajinder Sahota  
Assistant Chief, Industrial Strategies Division  
California Air Resources Board



Edward Randolph  
Director, Energy Division  
California Public Utilities Commission



Ms. Rebecca Smith  
August 2, 2017  
Page 4 of 4

cc: Robert P. Oglesby, Executive Director, California Energy Commission  
Edie Chang, Deputy Executive Officer, California Air Resources Board

ATTACHMENT 3

CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
COMMENTS ON RECS AND RENEWABLE ENERGY IMPORTED INTO CALIFORNIA  
VIA THE WESTERN ENERGY IMBALANCE MARKET

July 14, 2017

**Via Electronic Mail**

Ms. Rebecca Smith  
Oregon Department of Energy  
550 Capitol Street, NE  
Salem, OR 97301  
[rebcca.smith@oregon.gov](mailto:rebcca.smith@oregon.gov)

**Re: Renewable energy certificates and renewable energy imported into California via the Western Energy Imbalance Market**

Dear Ms. Smith:

The California Independent System Operator Corporation (ISO) submits these comments in response to questions the Oregon Department of Energy has asked related to renewable energy certificates (RECs) and renewable energy imported into California via the Western Energy Imbalance Market (EIM).

**I. EIM operation permits greater integration of renewable resources**

The ISO is the market operator for the EIM, which permits participating entities to engage in real-time energy transfers using available transmission. The EIM provides both reliability and renewable integration benefits to the West while also providing economic benefits to participants. The EIM matches the lowest cost electricity supply with load every 15 minutes and dispatches participating resources every five minutes. This flexibility provides more opportunities to integrate cleaner sources of energy, such as wind and solar, that may be produced in one balancing authority area but needed in another balancing authority area.<sup>1</sup> As a result, the EIM may attribute non-emitting EIM participating resources to serve load in the ISO's balancing authority area. The EIM also allows operation of non-emitting resources within the ISO balancing authority area to serve load in other participating balancing authority areas. Of importance, the EIM is a market for energy and compensates participating resources for the cost of the energy they supply to serve load. The EIM does not facilitate, and its transactions do not constitute, the purchase by electric load of the environmental attributes of participating resources.

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<sup>1</sup> More information on the benefits arising from operation of the EIM, including EIM Benefits Reports, is available at the following website:

<http://www.caiso.com/informed/Pages/EIMOverview/Default.aspx>.

The ISO has reviewed PacifiCorp's presentation made at the Oregon Department of Energy's June 15, 2017 meeting<sup>2</sup> and agrees with PacifiCorp's concern that restrictions limiting the flexibility of resources to participate in the EIM will reduce overall market benefits to customers in the EIM area. If Oregon decides that renewable EIM participating resources serving ISO load must retire RECs associated with their output, this restriction may cause resources to elect not to participate in the EIM or elect not to make their output available to serve ISO load. This outcome could undermine the efficiency and effectiveness of the EIM to help integrate greater amounts of renewables. In this respect, the ISO strongly encourages Oregon to discuss its questions with California officials responsible for administration of California's climate programs in order to ensure a coordinated approach related to the use of RECs for purpose of compliance with state renewable portfolio standards.

**II. Imported electricity into the ISO through the EIM does not create a claim on the environmental attribute of an EIM participating resource.**

The Oregon Department of Energy has requested stakeholders to respond to the following specific questions.

1. Does the definition of a REC in the Oregon Department of Energy's RPS administrative rules (OAR 330-160-0015) include the *direct* greenhouse gas zero-emissions attributes associated with renewable energy generation?

The definition of a renewable energy certificate in Oregon's renewable portfolio standard (OAR 330-160-0015) reads as follows:

Renewable Energy Certificate" (REC or Certificate) means a unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources that produce Qualifying Electricity. One Certificate is created in association with the generation of one MegaWatt-hour (MWh) of Qualifying Electricity. While a Certificate is always directly associated with the generation of one MWh of electricity, transactions for Certificates may be conducted independently of transactions for the associated electricity.

This definition does not clearly encompass the emission profile of the renewable resource's energy. In interpreting whether this definition includes the direct greenhouse gas zero-emissions attributes associated with renewable energy generation, the ISO urges the Oregon Department of Energy to consider the impacts of such an interpretation. RECs are an artifact resulting from the qualifying electricity generated by the renewable resource. The definition states that the RECs reflect the value of the

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<sup>2</sup> PacifiCorp presentation: RECs and the EIM: [http://www.oregon.gov/energy/energy-oregon/Documents/2017\\_6\\_PacifiCorpREC\\_Presentation.pdf](http://www.oregon.gov/energy/energy-oregon/Documents/2017_6_PacifiCorpREC_Presentation.pdf).

environmental, economic, and social benefits associated with the resource's output. These benefits may have value independent of the energy output, and it is appropriate in some instances that transactions for this value occur independently of the transactions for the energy from a qualifying renewable resource. If the Oregon Department of Energy interprets the definition of a REC to include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation, it could preclude transactions for environmental, economic, and social benefits from occurring independent of transactions for the energy from a qualifying renewable resource. Such an interpretation may undermine the ability of entities to comply with Oregon's renewable portfolio standard while participating in the EIM, thereby undermining Oregon's objective to integrate greater amounts of renewable resources.

2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

California's cap and trade program does not create a claim on a REC associated with renewable energy from EIM participating resources serving ISO load via the EIM. The California Air Resource Board (CARB) does not have rules that require the retirement of a REC when a renewable EIM participating resource is attributed as serving ISO load. Instead, CARB imposes reporting and compliance obligations on first deliverers of energy. In the context of the EIM, first deliverers of energy are EIM participating resource scheduling coordinators. These entities report emissions associated with EIM participating resources serving ISO load and comply with CARB's cap and trade program.

In addition, ISO load does not purchase the environmental attributes of a renewable EIM participating resource when that resource serves ISO load. ISO load pays solely for the energy it receives at a locational marginal price. To the extent that a REC is created with this energy, it exists independent of the electricity import that occurs through the EIM.

The ISO has reviewed the Western Renewable Energy Generation Information System (WREGIS) memorandum on the use of RECs and the EIM and disagrees with its conclusions.<sup>3</sup> The memorandum states that WREGIS account holders bidding energy into the EIM should be prepared to retire the RECs associated with that energy. But this guidance is not consistent with WREGIS operating rules, which state "certificates may be used by electricity suppliers and other energy market participants to comply with relevant state/provincial policies, regulatory programs and to support voluntary "green" electricity markets." The WREGIS memorandum also states: "These

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<sup>3</sup> WREGIS Memo on RECs and the EIM dated April 19, 2017:  
<https://www.wecc.biz/Administrative/WREGIS%20EIM%20Memo%2020170419.pdf>

RECs should be retired under the timeline outlined by the applicable state program or as defined by the CAISO.” Neither CARB nor the ISO asserts any claim over a REC as a result of imported electricity through the EIM. There is no California program or ISO timeline to retire RECs associated with imported electricity through the EIM.

Accordingly, the certificates remain complete as defined by the WREGIS operating rules. As part of WREGIS Operating Rules, WREGIS defines *Certificate* as follows: “A WREGIS Certificate (also called a renewable energy credit) represents all Renewable and Environmental Attributes from MWh of electricity generation from a renewable energy Generating Unit registered with WREGIS or a Certificate imported from a Compatible Registry and Tracking System and converted to a WREGIS Certificate.”  
[Footnote omitted.]

WREGIS also defines ***Renewable and Environmental Attributes*** in relevant part as follows:

Any and all credits, benefits, emissions reductions, offsets, and allowances—howsoever titled—attributable to the generation from the Generating Unit, and its avoided emission of pollutants.<sup>4</sup> Renewable and Environmental Attributes do not include (i) any energy, capacity, reliability, or other power attributes from the Generating Unit; (ii) production tax credits associated with the construction or operation of the Generating Unit and other financial incentives in the form of credits, reductions, or allowances associated with the Generating Unit that are applicable to a state, provincial, or federal income taxation obligation; (iii) fuel-related subsidies or “tipping fees” that may be paid to the seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular pre-existing pollutants or the promotion of local environmental benefits; or (iv) emission reduction credits encumbered or used by the Generating Unit for compliance with local, state, provincial, or federal operating and/or air quality permits.

Again, CARB’s cap and trade program extends no credits, benefits, emissions reductions, offsets, or allowances to imported electricity from renewable EIM participating resources serving ISO load. Instead, CARB requires an accurate accounting of emissions and related compliance by first deliverers of electricity. In the case of electricity imported into California via the EIM, first deliverers of electricity are EIM participating resource scheduling coordinators whose resources serve ISO load.

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<sup>4</sup> WREGIS states that the avoided emissions referred to here are the emissions avoided by the generation of electricity by the Generating Unit and therefore do not include the reduction in greenhouse gases (GHG) associated with the reduction of solid waste or treatment benefits created by the use of biomass or biogas fuels. Avoided emissions may or may not have any value for complying with any local, state, provincial, or federal GHG regulatory program. Although avoided emissions are included in the definition of a WREGIS Certificate, this definition does not create any right to use those avoided emissions to comply with any GHG regulatory program.

### III. Conclusion

The ISO respectfully requests the Oregon Department of Energy find that it is not necessary for renewable EIM participating resources to retire a REC in connection with qualifying electricity that serves ISO load through the EIM. The ISO recommends that the Oregon Department of Energy engage with California officials responsible for the administration of California's climate programs in order to ensure a coordinated approach related to the use of RECs for purposes of compliance with state renewable portfolio standards.

Please do not hesitate to contact me with any questions.

Respectfully submitted,

**By: /s/ Andrew Ulmer**

Roger E. Collanton  
General Counsel  
Anthony Ivancovich  
Deputy General Counsel  
Andrew Ulmer  
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*Attorneys for the California Independent  
System Operator Corporation*

cc: Stacey Crowley, Vice President of Regional and Federal Affairs (ISO)  
Peter Colussy, External Affairs Manager – Regional (ISO)

ATTACHMENT 4

WEINSTEIN COMMENT LETTER  
CEC DOCKETS 02-REN-1038 AND 11-RPS-01



THE LAW OFFICES OF  
**JEREMY D. WEINSTEIN**  
A PROFESSIONAL CORPORATION

September 30, 2011

California Energy Commission  
Dockets Office MS-4  
Re: Docket No. 11-RPS-01 and Docket No. 02-REN-1038  
RPS Proceeding 1516 Ninth Street  
Sacramento, CA 95814-5512  
and email [docket@energy.state.ca.us](mailto:docket@energy.state.ca.us)

**11-RPS-01**

**DOCKET**

**02-REN-1038**

DATE SEP 30 2011

RECD. SEP 30 2011

Re: Comments on Docket Number 02-REN-1038 and 11-RPS-01  
Staff Workshop on the Use of Biomethane Delivered via the Natural Gas Pipeline  
System for California's Renewable Portfolio Standard ("Workshop")

Ladies and Gentlemen:

Thank you for the opportunity to comment on the above-referenced matter. I am writing solely on my own behalf as a California ratepayer, and not on behalf of any other person or entity. I am solely responsible for the opinions I express in this letter.

Attachments A and B to the Commission's Notice of the Workshop set forth a number of items in which "[t]he Renewables Committee is interested in stakeholder input ... ." I provide below my own, personal, stakeholder input as a California ratepayer, interested in safe, affordable, and reliable renewable energy.

1. Fuel Production Location Requirements.

Attachment A asks:

2. Should the Energy Commission consider adding any location requirements to sources allowed to provide biomethane to facilities participating in California's RPS in addition to any restrictions implied by required delivery agreements?

The answer to this question is "no," because (a) no such requirements are found in the statute, and (b) such requirements, if imposed, would be contrary to the intent of the RPS statute as set forth in the statute itself. I elaborate in Sections 1.a. and 1.b. of this letter, below.

The answer to this question is also "in any case, not yet," because the Commission does not yet appear to have analyzed (c) commerce clause or (d) FERC jurisdiction/filed rate doctrine issues in this context. I elaborate in Sections 1.c. and 1.d. of this letter, below.

I also discuss further aspects of this issue in Sections 4.b. and 4.c. of this letter, below.

a. RPS Statute.

Public Resources Code 25741(a) defines “Renewable electric generation facility” as follows:

(a) “Renewable electrical generation facility” means a facility that meets all of the following criteria:

(1) The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.

(2) The facility satisfies one of the following requirements:

(A) The facility is located in the state or near the border of the state with the first point of connection to the transmission network of a balancing authority area primarily located within the state. ... . (emphasis supplied)

Notably, Public Resources Code §25741(a) (1) does NOT and has never contained the interspersed absent, deleted words inserted below:

The facility uses biomass ~~made in California~~, solar thermal ~~using boilers made in California~~, photovoltaic ~~using photo-cells manufactured in California converting California sunlight~~, wind ~~generated by wind turbines made in California and turned by California wind~~, geothermal, fuel cells using renewable fuels ~~and hydrogen made in California~~, small hydroelectric generation of 30 megawatts or less ~~powered by California water~~, digester gas ~~produced in California~~, municipal solid waste conversion, landfill gas ~~produced in California~~, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.

Yet, the thrust of a lot of conversation at the Workshop concerned starting, with biomethane, a process of reading the absent, deleted words into the statute.

The statute requires facility “use” of digester gas and landfill gas, and discusses “facility” location, but it does not require facility “use” of California-made-only digester gas or landfill gas, just as the statute allows the “use” of wind but does not require that wind “use” be only by turbines “made in California.”

It sounded to me like a State Legislature staff member threatened the Commission that unless the Commission implements biomethane rules in the manner that he represented was the legislature’s intent, stated by him to be to limit or eliminate the use of biomethane produced out of state, then the legislature will change the law so that the Commission will have to do so. If I heard this correctly, I think this would have been inappropriate for him to say, as disrespectful of the doctrine of separation of powers that is the foundation of this state’s and this nation’s constitutions. But I also think that a statement that the legislature will have to change the law in order to implement a supposed “intent” is proof that said “intent” is not in the statute.

b. Purposes of the RPS statute.

Public Utilities Code §399.16(b) has the new “product” categories and their limits on usage; it does not set forth any limit on “use” of biomethane by in-state generating facilities. Instead, the section refers back to Public Utilities Code §399.11, which sets forth the purposes of the RPS statute. Public Utilities Code §399.11(e)(b) provides:

Achieving the renewables portfolio standard through the procurement of various electricity products from eligible renewable energy resources is intended to provide unique benefits to California, including all of the following, each of which independently justifies the program:

- (1) Displacing fossil fuel consumption within the state. ...
- (4) Meeting the state’s climate change goals by reducing emissions of greenhouse gases associated with electrical generation. ...
- (6) Meeting the state’s need for a diversified and balanced energy generation portfolio. (emphasis supplied).

Biomethane sourced from outside of California provides each of these independent justifications.

Biomethane displaces in-state fossil fuel consumption, which meets §399.11(e)(b)(1).

Biomethane reduces emissions of greenhouse gases associated with electrical generation. Despite statements by some stakeholders at the Workshop seeming to imply otherwise, Public Utilities Code §399.11(e)(b)(4) does not state that such GHG reductions must be in-state.

Biomethane supports the state’s need for a diversified and balanced energy portfolio. I heard TURN’s representative state at the Workshop that biomethane has “zero impact on grid operations in California.” If I heard that correctly, I do not believe this is true. Intermittent resources such as wind and solar require support from baseload and peaking generating capacity. There may well be times and circumstances where in the aggregate there is less pollution from generation burning biomethane than there is from wind or solar generation supported by baseload-burning brown gas.

c. Commerce Clause Analysis.

A slippery slope of interstate commerce barriers has been proposed by introducing a “made in California” requirement to RPS-eligible fuels. Before starting to roll down it, I respectfully recommend an analysis of U.S. Constitution commerce clause issues introduced. To the extent there are rule proposals that impact biomethane that otherwise could have been imported from Canada or Mexico, I would also recommend review of North American Free Trade Agreement (NAFTA) and other free trade issues that might be so introduced.

d. FERC Jurisdiction/Filed Rate Doctrine Analysis.

Similarly, before requiring that biomethane be produced in California for it to be eligible to produce RPS-eligible energy, or otherwise promulgating rules that might bear on the interstate gas market, I respectfully recommend that the Commission analyze potential FERC jurisdictional and filed rate doctrine considerations.

2. Backhauls.

Attachment A asks:

3. The Energy Commission currently allows backhaul and forward haul transportation agreements that are either firm or interruptible to be considered eligible delivery methods, should the Energy Commission:

- a. Retain the current requirements?
- b. Restrict delivery to only forward haul transportation?
- c. Restrict delivery to only firm transportation agreements?

Please provide reasoning for your response.

I was impressed by the presenter from Aspen Environmental Group. However, I disagree with the implication that since “most” transactions are forward hauls, this somehow gives rise to an argument that biomethane deliveries should be limited to forward hauls. As can be seen in a recent FERC pipeline backhaul rate tariff approval directive, *In re Rockies Express Pipeline LLC*, 135 FERC ¶ 61,253 (June 17, 2011),<sup>1</sup> there is nothing remotely subordinate or wrong about backhauls, in fact, FERC notes, backhaul services “provide prospective and current customers with additional transmission options and flexibility.” (*Id.* at para. 13).

Backhauls are good for the interstate gas pipeline system and enhance efficient operation through providing counterflow that helps compression, so more gas can flow in the direction it needs to go. If backhauls are cheaper, that is a benefit for ratepayers. See, e.g., Platts, *Gas industry officials say backhaul shipping growing in Marcellus* (Jun 8, 2010)<sup>2</sup> and Platts, *Kinder Morgan eyes REX backhaul in light of Marcellus gas growth* (Aug 4, 2010).<sup>3</sup>

Gas transportation is pressure in a pipeline. Arguing that backhauls should be prohibited because they are not as common as forward hauls is tantamount to saying that because wind blows mostly from the south, wind turbines should not be permitted to face west.

Additionally, to the extent this bears on the Commission’s analysis of this issue, I do not understand how Aspen’s slide 5, which refers to a “Physical ‘swap’ technique,” can actually occur without running afoul of shipper-must-have-title rules. Slide 5 is not clear as to whether “A” is a “market” or a “customer.” It appears that “A” is in the north, something called “B” is in

<sup>1</sup> available at <http://www.ferc.gov/EventCalendar/Files/20110617160004-RP11-2096-000a.pdf>

<sup>2</sup> available at <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/HeadlineNews/NaturalGas/6099311>

<sup>3</sup> available at <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/HeadlineNews/NaturalGas/6260213>

the south, and B wants gas from the north but is only interconnected to the south. If this is the case, it cannot have or be sold gas from the north. For it to have northern gas, B either has to have title to the gas that is shipped to it from S or from A. The only way S can have A's gas, or S's gas from A, or gas from the north, is through a shipment on an interstate pipeline pursuant to which the entity that owns the gas is the shipper on the pipeline. See, e.g., *In re BP Energy Co.*, 121 FERC ¶ 61,088 (2007); *In re RRI Energy, Inc.*, 132 FERC ¶ 61,267 (2010);<sup>4</sup> *In re Entergy New Orleans, Inc.*, 122 FERC ¶ 61,219 (2008);<sup>5</sup> and *In re Calpine Energy Services, L.P.*, 119 FERC ¶ 61,125, (2007).<sup>6</sup>

I also believe that restricting transportation to firm transportation would unnecessarily tie up firm gas transportation, which is a limited resource on interstate pipelines, without any discernable benefit to the quality of the gas, proof of compliance, or otherwise.

### 3. Record Keeping Requirements.

Attachment A asks:

6. What records should an applicant for an electric generating facility using pipeline biomethane be required to maintain and provide to the Energy Commission in the event of an audit process. ...

Whatever the Commission decides, I respectfully recommend that the generating facility should not be required to maintain or obtain records that it cannot get, or that if it was not previously required to obtain, might not be subsequently available to it due to record retention rules binding on the supplier or bankruptcy of the supplier.

### 4. Other.

#### a. Additionality.

The California Air Resources Board (CARB) sets forth valid additionality requirements for biomethane in its cap and trade rules, e.g., proposed cap-and-trade regulation §95852.1.1: Eligibility Requirements for Biomass-Derived Fuels. Potential users of biomethane will naturally seek to comply with both the cap and trade and RPS programs. The state bodies that implement these two state legislative policies can work in tandem to further the goals of both.

#### b. Renewable Energy Should Not be Rendered Artificially Unaffordable.

Destroying the functionality of market mechanisms by (a) rule changes mid-stream, (b) frequent rule changes that cause potential market participants to believe there is no stable market

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<sup>4</sup> available at

<http://www.ferc.gov/enforcement/civil-penalties/actions/132FERC61267.pdf>

<sup>5</sup> available at <http://www.ferc.gov/eventcalendar/Files/20080311104002-IN08-4-000.pdf>

<sup>6</sup> available at

<http://www.ferc.gov/eventcalendar/Files/20070509122244-IN07-24-000.pdf>

in which they can participate, and (c) limiting the highest and best use of assets that can be used in California based on where the assets are produced, prevents the use of market mechanisms to most efficiently price renewable energy. This increases the burden on ratepayers. It also artificially inflates the price and cost of renewable energy, creating the false impression that renewable energy is more expensive than it really is, and with that false price signal, inhibiting the more widespread adoption of renewable resource-based generation. Obscuring the actual low price of renewables is at odds with other RPS policies.<sup>7</sup>

c. Renewable Energy Policy Should Not Needlessly Sacrifice the Health Californians.

Although The Utility Reform Network (TURN) represents itself as a ratepayer advocacy group, TURN seems to be more concerned here about creating transmission construction worker jobs. These are not “green” jobs; they simply increase the cost of green resources to Californians. “Transmission construction jobs” is not specified as a goal in Public Utilities Code 399.11(b).

But more importantly, the policy objectives expressed by TURN and others at the Workshop to increase the construction of local transmission facilities rather than use cheaper and already available out of state fuel for in-state renewable resources not only needlessly increase the cost of renewable energy to ratepayers, they also put the health of Californians at risk, at no discernable benefit to ratepayers.

A number of studies have linked living near high-voltage transmission lines to childhood acute lymphocytic leukemia. Lowenthal, et al., *Residential Exposure to Electric Power Transmission Lines and Risk of Lymphoproliferative and Myeloproliferative Disorders*, Internal Medicine Journal 37: 614–619 (2007)<sup>8</sup> found that people who had lived within 300 meters of a power transmission line as children had a fivefold increase in risk of leukemia and lymphoma compared with those who had always lived more than 300 meters from a power line. Draper, et al. *Childhood cancer in relation to distance from high voltage power lines in England and Wales: a case-control study*, British Medical Journal 330:1290 (2005),<sup>9</sup> found that children who lived within 200 meters of a power transmission line from birth onward had a 70% elevation in risk of leukemia compared with those who lived more than 600 meters away, and those between 200 and 600 meters of a power line had a 23% elevation in risk of leukemia. Theriault & Li, *Risks of leukaemia among residents close to high voltage transmission electric lines*, Occupational and Environmental Medicine 1997;54:625-628<sup>10</sup> found an association between exposure to magnetic fields and leukemia among people who reside in the vicinity of high voltage transmission electric lines of 49 kV.

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<sup>7</sup> See, e.g., stakeholders quoted in Weinstein, A Western Renewables Marketplace, Environmental Finance, Apr. 2004, p. 15, available at [http://emissions.org/publications/member\\_articles/ef4ema15.pdf](http://emissions.org/publications/member_articles/ef4ema15.pdf)

<sup>8</sup> available at <http://www.ncbi.nlm.nih.gov/pubmed/17543004>

<sup>9</sup> available at <http://www.bmj.com/content/330/7503/1290.full>

<sup>10</sup> available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1128834/pdf/oenvmed00093-0001.pdf>

A connection between childhood leukemia and living near high-voltage transmission lines has been confirmed to varying extents by official federal and California government reports, although the medical community is not unanimous.<sup>11</sup> The NIEHS REPORT on Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields Prepared in Response to the 1992 Energy Policy Act<sup>12</sup> says: “the epidemiological studies demonstrate, for some methods of measuring exposure, a fairly consistent pattern of a small, increased risk with increasing exposure that is somewhat weaker for chronic lymphocytic leukemia than for childhood leukemia.” According to the EMF Research and Public Information Dissemination (EMFRAPID) Program through the United States Department of Energy and the National Institute of Environmental Health Sciences/National Institutes of Health report, *Assessment of Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields Working Group Report*,<sup>13</sup> “the overall pattern of results suggests a weak association between increasing exposure to EMFs and an increased risk of childhood leukemia.” California Electric and Magnetic Fields Program, A project of the California Department of Health Services and the Public Health Institute, *Short Fact Sheet on EMF*<sup>14</sup> says: “Most but not all epidemiological studies show an association between leukemia ... and an ‘indirect’ estimate of high magnetic field exposure such as living very near a type of powerline that could cause of high magnetic fields ... these studies show that some estimates of magnetic field exposure might be related to cancer, but this does not necessarily mean that magnetic fields cause cancer.”

I did not know about these studies when we moved into an area of south Walnut Creek close to twin 230kv lines in 1994, when my daughter Simone was 5 years old. In fact, I did not know about them until 2004, after Simone was diagnosed with acute lymphocytic leukemia, the very form of cancer linked by these studies to living near high voltage power lines. I am extremely happy to say that after her ordeal, which included a stroke caused by chemotherapy medication, Simone is fine<sup>15</sup> and thriving as an art major in her senior year at Whittier College.

However, I would not wish having a child go through leukemia on my worst enemy, if I had one. I recognize that there are societal trade-offs. Cancer risks suffered directly by

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<sup>11</sup> Kleinerman, et al., *Are Children Living Near High-Voltage Power Lines at Increased Risk of Acute Lymphoblastic Leukemia?* American Journal of Epidemiology, Vol. 151, No. 5, 2000, Available at <http://aje.oxfordjournals.org/content/151/5/512.full.pdf>: “we found ... no evidence that children living near high-voltage power lines are at increased risk of acute lymphoblastic leukemia.” A detailed and readable explanation of a number of studies is Electric and Magnetic Fields Associated with the Use of Electric Power (June 2002): Questions & Answers prepared by the National Institute of Environmental Health Sciences National Institutes of Health available at

[http://www.niehs.nih.gov/health/assets/docs\\_p\\_z/results\\_of\\_emf\\_research\\_emf\\_questions\\_answers\\_booklet.pdf](http://www.niehs.nih.gov/health/assets/docs_p_z/results_of_emf_research_emf_questions_answers_booklet.pdf)

<sup>12</sup> NIH Publication No. 99-4493, p. 9; available at

[http://www.niehs.nih.gov/health/assets/docs\\_f\\_o/health\\_effects\\_from\\_exposure\\_to\\_powerline\\_frequency\\_electric\\_and\\_magnetic\\_fields.pdf](http://www.niehs.nih.gov/health/assets/docs_f_o/health_effects_from_exposure_to_powerline_frequency_electric_and_magnetic_fields.pdf)

<sup>13</sup> available at <http://www.niehs.nih.gov/health/topics/agents/emf/>

<sup>14</sup> p.2, available at <http://www.ehib.org/emf/shortfactsheet.PDF>

<sup>15</sup> Szabo, *Kids with Cancer Bond On-Line*, USA Today, April 10, 2006, available at

[http://www.usatoday.com/tech/news/techinnovations/2006-04-10-teen-cancer-web\\_x.htm](http://www.usatoday.com/tech/news/techinnovations/2006-04-10-teen-cancer-web_x.htm); Rabin, *In Cancer Fight, Teenagers Don't Fit In*, New York Times, March 15, 2010, available at

<http://www.nytimes.com/2010/03/16/health/16canc.html?pagewanted=print>; Simone Weinstein, *My Friend Has Cancer: A Pamphlet for Teens*, available at [http://jweinsteinlaw.com/My\\_Friend\\_has\\_Cancer.pdf](http://jweinsteinlaw.com/My_Friend_has_Cancer.pdf).

individuals are abundant as a cost of creating goods and services that benefit society as a whole. But I hope I can convince the Commission that it should not take any steps that could increase the incidence of individual child leukemia patients when there is no actual benefit to society.

Creating a few transmission construction jobs that are otherwise unnecessary by erecting artificial barriers to existing renewable resources, which barriers are not required by the statute, is not a societal benefit; it is rather a very expensive and inefficient transfer payment to some construction workers for a year or two, with a follow-on generations-long negative risk of increased childhood leukemia that would fall disproportionately on some families. Rather than weighing the need for more renewable resources against environmental impact, since the resources are already available but for proposed artificial limits on existing resources so new ones can be built in California to create transmission construction worker jobs, we can instead simply weigh make-work legislation against environmental impact.

How much added danger and risk should individual members of society tolerate for “make work” jobs? Tearing up and refilling paved roads has been a not-atypical use of federal stimulus funds in recent years. Were we to prohibit self-service at gasoline stations, it is primarily the workers who “chose” to take the jobs pumping gas who would have more exposure to carcinogens. But we should not have workers dig potholes in functioning roads in order to increase work for pothole fillers, because it is wasteful and some families driving on the road will disproportionately bear the costs of injury directly arising from this wastefulness.

I think if ratepayers were fully informed and given the choice between paying extra money on their electricity bills to create construction jobs to build assets that are only made necessary by artificially restricting the use of available out of state renewable resources, and that increase the risk of childhood leukemia, even if the epidemiological risk is not yet fully settled, or of obtaining the RPS benefit- renewable energy- from out of state without having to pay that extra money on their electricity bills, most ratepayers would choose the latter.

The TURN representative seemed to hint that liquefied biomethane imported into the state and directly connected with the generator might meet whatever criteria TURN is seeking to add to the RPS statute. This is another example of an awful lot of expense and danger added needlessly to a product that can be reliably and safely imported into California through the interstate pipelines. Demonstrably ill health effects of a state law or regulation tending to restrict interstate commerce should also be considered in any commerce clause analysis.

d. Green Attributes.

One subject that I had thought the Workshop would cover, is page 18, bottom paragraph, of the 4<sup>th</sup> ed. of the Renewables Portfolio Standard Eligibility Commission Guidebook the last sentence of the CPUC’s definition Green Attributes. That sentence reads:

If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to



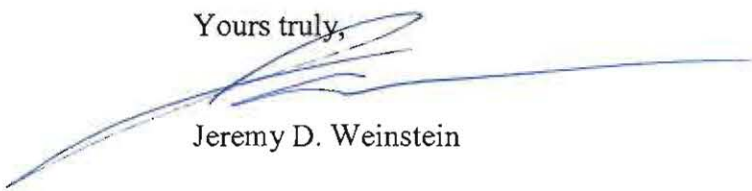
ensure that there are zero net emissions associated with the production of electricity from the Project.

Decision 08-08-028 August 21, 2008, Decision on Definition and Attributes of Renewable Energy Credits for Compliance with the California Renewables Portfolio Standard, p. B-2.

It would be nice to have regulatory certainty respecting what such Green Attributes are. For example, page 175 of second 15 day rule ARB package on the cap and trade regulations under AB32,<sup>16</sup> refers to Table C-1 of EPA greenhouse gas reporting regulations,<sup>17</sup> which sets forth a factor of 53.02 at Table C-1 to Subpart C of Part 98, 74 FR 56409 (2009) on page 37 of the pdf file. So, perhaps a rule could be that if a facility is obtaining Climate Reserve Tonnes (CRTs) on the Climate Action Reserve (CAR) for methane capture, a facility that also wants to sell green gas for California combustion into eligible renewable energy would have to provide 1 CAR CRT for every 1000/53.02 or 18.86 mmBTU combusted. For a plant with a 7.5 heat rate, that would mean 3000 mmBTU combusted by the plant would generate 400 MWhrs, and would require 159(.07) CRTs to ensure zero net emissions (if and only if there are CAR CRTs being produced, and if my math is remotely right). Perhaps this could be a discussion item at a future Commission workshop.

Thank you for the opportunity to comment.

Yours truly,



Jeremy D. Weinstein

cc: Ms. Katherine Zocchetti  
Gabe Herrera, Esq.  
Mr. Mark Koostra

<sup>16</sup> available at <http://www.arb.ca.gov/regact/2010/capandtrade10/2ndmodreg.pdf>

<sup>17</sup> available at <http://www.epa.gov/climatechange/emissions/downloads09/GHG-MRR-FinalRule.pdf>