California Energy Commission
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TN # 69480

STATE OF CALIFORNIA

BEFORE THE CALIFORNIA ENERGY COMMISSION

In the matter of:)
Developing Regulations and Guidelines for the 33 percent Renewable Portfolio) Docket No. 11-RPS-01
Standard) Docket No. 02-REN-1038
and) Comments On: Concept) Paper For Implementation
Implementation of Renewables Investment Plan Legislation) of Assembly Bill 2196)

Comments of the Sacramento Municipal Utility District (SMUD) on Staff Concept Paper for the Implementation of Assembly Bill 2196 for the Renewables Portfolio Standard

Thank you for the opportunity to provide comments on the staff paper entitled: "Concept Paper for the Implementation of Assembly Bill 2196 for the Renewables Portfolio Standard" (Concept Paper). SMUD appreciates the hard work of CEC staff in the development of the Concept Paper, and generally believes that the staff has appropriately interpreted many of the provisions of AB 2196.

In particular, SMUD appreciates and strongly supports the interpretation in the Concept Paper that the term "... original contract ..." in Section 399.16(a)(2) covers any extensions or modifications of a contract signed and reported to the CEC prior to March 29, 2012. This interpretation is consistent with the intent of this part of the law, which aimed to honor the terms of contracts legitimately signed under rules in place, prior to regulatory or legislative action to change those rules.

SMUD also strongly supports the interpretation in the Concept Paper (page 7) that applicants are allowed to substitute designated electric generation facilities associated with a grandfathered biomethane contract. We agree with the interpretation that the law and practice surrounding certification of biomethane resources for the RPS are concerned with the biomethane source, thus allowing a source to be certified to different electric generating facilities as needed.

However, on several aspects, described below, SMUD believes that the staff has interpreted AB 2196 incorrectly or too narrowly. In considering these comments and eventual renewable guidebook changes, SMUD encourages the CEC to pay significant attention to the legislative intent of AB 2196. In our view, the bill was crafted to do two main things: 1) grandfather existing biomethane contracts under existing rules – in place when the contracts were legitimately signed; and 2) establish new rules for biomethane contracts signed in the future (specifically, post March 28, 2012 – but the biomethane suspension means there has been no contract activity since that date). In this regard, where the CEC has room for alternate interpretations of a provision of AB 2196, it should give weight to the interpretation that fully honors these contracts, and avoids intervening in valid historical contract negotiations and terms.

The legislative intent behind the first main set of provisions in AB 2196 -- to grandfather existing biomethane contracts under existing rules if signed prior to March 29, 2012 -- is well-known. Specific evidence for this intent can be found in a key legislative session in the development of AB 2196. At a Senate floor session on August 23, 2012 five Senators raised objections to the version of the bill then under consideration on the grounds that it did not provide full credit for pre-March 29, 2012 biomethane contracts. That version of the bill was defeated at that session, and only was enacted after later amendments were added that grandfathered these historical and legitimately signed contracts. An approximate transcript (there is no official transcript, but a recording is available, and SMUD staff transcribed the relevant objections) of these five Senators' remarks can be found in Attachment 1.

SMUD encourages quick deliberation on the points raised below and comments from other stakeholders so that the CEC can proceed to remove the current suspension on biomethane certifications for the RPS, and, more importantly perhaps, to reduce the current uncertainty in the market regarding biomethane contracts and sources that were expected to be grandfathered by AB 2196.

A. Proposal In Paragraph B. 3 that the Words "... reported to..." in Section 399.12.6(a)(1) Mean That an Application for Certification or Pre-certification to be Filed with the Energy Commission Prior to March 29, 2012.

SMUD strongly opposes the interpretation of AB 2196 contemplated by the Staff Paper in paragraph B. 3. The term "reported to the Energy Commission" should be interpreted, consistent with its generally accepted definition, to mean to inform, notify or provide an account of a particular matter. SMUD believes that the Staff Paper inappropriately expands this definition to include the additional obligation of obtaining certification or pre-certification. The bill itself does not include language that links "reported" to "certification or pre-certification."

To the contrary, the authors of the bill were perfectly aware of the certification and precertification process at the CEC prior to passage of the law, and could have used the words "...in a complete application for RPS certification or precertification ..." if that was their intent. They chose not to use such language. The main intent of this section of the bill was to treat contracts signed prior to the March 28th biomethane suspension under the rules established by the CEC at the time the contract was signed. The authors of the bill clearly intended to respect, and not interfere with, the contractual rights of parties prior to established before the law was changed.

SMUD has a contract that is in this category – signed in 2009 – that would not be provided the grandfathered status envisioned by AB 2196 under the staff interpretation.

In SMUD's case, there is ample documentation in e-mails and correspondence that the resource in question – the Heartland contract – was reported to the CEC, known by the CEC, and discussed with the industry in a manner consistent with the term "... reported to..." in AB 2196. The text of these e-mails, along with a letter on CEC letterhead expressing approval of the 'delivery structure' for the Heartland project, is contained in an Attachment 2 to this comment submittal. SMUD's contract for this resource was signed in 2009, and the e-mail discussions with the CEC occurred in that year and in 2008, several years prior to the March 19, 2012 "reported to" by date *established* by AB 2196. We believe that these e-mails and CEC letter are sufficient evidence in and of themselves to meet the "reported to" requirement. Absent a change to the Concept Paper interpretation, SMUD's biomethane contract will not be protected by the grandfathered status envisioned by AB 2196 which would severely devalue (and strand) an otherwise legitimate contract.

Of particular note in these discussions is the CEC's rejection of efforts to certify or precertify the Heartland resource in 2009 – the very effort that the CEC now proposes to require in the Concept Paper's proposed "Pre-certified or Certified" test for the "reported to" date. SMUD and Heartland tried to Certify or Pre-certify the Heartland resource, but the CEC advised us that it would not accept that application:

"The problem is, we can't pre-certify the facility, because it's already certified and online generating renewable energy. We also can't certify the facility with the new reduced fossil fuel usage, because your biogas isn't being used yet. So we're in this weird situation that's never come up before where you can't pre-certify OR certify"

(September 2009 e-mail from Joseph Fleshman of the CEC.)

So SMUD could not *certify* the Heartland source in 2009 because the biomethane was not yet being produced, and could not *pre-certify* the expected designated resource for the source (CPP) because that source was already certified for a certain amount of biomethane use. It is capricious for the CEC to refuse in 2009 to allow Certification or

Pre-certification of a contractual biomethane source, and then in 2013 propose that such Certification or Pre-certification is necessary by March 29 of 2012 to preserve the expected, grandfathered nature of that contract. The CEC's interpretation is not required by AB 2196 and contrary to legislative intent intervenes inappropriately in the legitimate contract terms signed by both parties to devalue and strand this legitimate resource.

A relevant example of the CEC's leeway in interpretation here can be found on page 7 of the Concept Paper. Here, CEC staff suggest that the "... reported to the Energy Commission ..." language of AB 2196 applies broadly when interpreting another provision of the law that references biomethane sources identified in the "... original application for certification submitted to the Energy Commission prior to March 29, 2009." The Concept Paper suggests that although the term "pre-certification" was not explicit in this section of the law, that the statute does "appear to grandfather biomethane-based electrical generation associated with the biomethane sources under contract and "reported to the Energy Commission" prior to March 29, 2012, *regardless* of what type of application was submitted to the Energy Commission." (Emphasis added.) In fact, it is clear that the law does not require either a pre-certification application or a certification application, but merely has the obviously more general "reported to" language. It is the CEC Staff that has proposed that "reported to" means either pre-certification or certification, and the Staff can and should take a broader interpretation to cover this case, where there is clear documentation of discussions with the CEC prior to March 29, 2012, and certification and pre-certification were explicitly denied by Staff in those 2009 discussions.

B. The CEC Should Provide Greater Clarity Regarding The Meaning Of Quantities Of Biomethane That "Exceed The Quantities" ... In The Original Contract.

The CEC should understand that biomethane contracts are complicated and varied. Quantities specified in the original contract can vary over time and have ranges from minimum to maximum levels, as well as differ with regard to stated daily, monthly or other maximum amounts. In particular, landfill gas production rates vary significantly, particularly when contracts are signed (as they often are) prior to the initial development and confirmation of the amount of gas really available to the contract from the landfill source. This quantity depends on the actual, as opposed to projected, rate of decomposition of organic materials in the landfill, and is impacted by external factors including ambient temperature and precipitation. As a result, contracts routinely contain a range of predictable levels of production that include a minimum and maximum number. While production levels are intended to remain within the minimum and

maximum range for planning purposes, it is not uncommon for contracts to permit deviation from the stated range, where mutually agreed, in order to respond to unexpected situations, including force majeure event.

SMUD believes that the CEC should strive for overall simplicity and weight towards the expected grandfathering of existing, varied biomethane contracts. The simplest, most flexible treatment would be to tie this provision in AB 2196 to the overall maximum amount of biomethane specified over the term of the contract. However, SMUD understands that this simple treatment would imply that over the length of the contract, the CEC would be unable to verify whether the maximum amount of biomethane specified is exceeded until near the end of the contract period, which may be 20 or 30 years from the contract start. A simple middle ground seems appropriate.

SMUD suggests that the CEC tie the implementation of this provision of AB 2196 to RPS compliance periods. Here, the CEC would calculate or estimate the maximum amount of biomethane established in a biomethane contract over an RPS compliance period, and verify that actual biomethane purchased under the contract was equal to or less than that amount.

While some biomethane contracts include maximum daily amounts of biomethane, not all are so structured, and even those that are can use storage to meet contract requirements while appearing to deliver more biomethane on a particular day than "contracted for" on that day, as well as practices common in natural gas procurement that allow "true-up" of daily maximums over a longer period of time. Hence, SMUD strongly encourages the CEC not to focus the question of "excess" on the daily maximums in these contracts, thereby avoiding undue interference in historical contract structures and avoiding unnecessary complexity in RPS implementation for the limited number of historical biomethane contracts.

Similarly, SMUD encourages the CEC to not focus the question of "excess" in this context on any annual "expectations" for biomethane delivery in a contract. While such annual amounts may be included in the contract, again, storage and the peculiarities of project developments, particularly for landfills, can lead to lower or higher deliveries than expected in any year, and contracts typically explicitly allow for such contingencies or depend on the common practices in the natural gas marketplace to manage them.

In sum, SMUD suggests that the CEC take a flexible and simple view of what is meant by 'exceeding the quantities' in historical biomethane contracts, avoiding interpreting this on a daily or even annual basis, and rather focus on compliance periods. In doing so, the CEC will avoid unnecessary complexity in implementing AB 2196 and minimize after the fact intervention in historical biomethane contracts, while preserving the intent of AB 2196 that these contracts not be expanded beyond the original, long-term intent.

C. The Interpretation Contemplated in C. 13, Relating to the Definition of "A Dedicated Pipeline" in Section 399.12.6(b)(2) Should be Expanded to Include any Private Pipeline that Only Serves the Needs of a Single Entity.

SMUD is confused by the discussion in the Concept Paper of the term 'dedicated pipeline (see Section C.13; page 9). The Staff Proposal describes a situation where a biomethane source is not located at the site of generation (hence requires a "pipeline") and that "... is delivered to the facility through a pipeline that delivers gas to a specific electrical generation facility, and to not other end users."

In SMUD's specific case, the Staff Proposal at first blush appears to be consistent with what appears to be the practice with our dedicated pipeline. SMUD takes biogas from the Sacramento County Waste Water Treatment facility, injects it into our nearby dedicated pipeline and conveys it to our designated Cosumnes electrical generation facility, and to no other end-users. No other end-users except for SMUD generators are connected to our dedicated pipeline – gas flows in our dedicated pipeline only to our generation facilities. This basic text of the staff proposal also says nothing about "comingling with natural gas", and does not explicitly preclude other generation facilities from being connected to a dedicated pipeline so long as the biomethane is delivered to the specific facility in question.

However, the Rationale text in the Concept Paper goes on to discuss the staff proposal as if a dedicated pipeline must connect just one source with one generating facility without comingling with natural gas. In effect, this definition makes delivery through a dedicated pipeline identical to on-site generation with a longer pipe from source to generator (as on-site use also involves moving the gas from source to generator via pipe). SMUD opposes the narrow interpretation of dedicated pipeline that is implicit in the Rationale discussion, and requests that the Concept Paper definition be clarified, or modified, to explicitly and clearly include our specific dedicated pipeline situation.

The Concept Paper cites the definition in the recently enacted AB 1900, which states that a dedicated pipeline is: a "... conveyance of biogas or biomethane that is not part of a common carrier pipeline system, and which conveys biogas from a biogas producer to a conditioning facility or an electrical generation facility." Rather than supporting the Concept Paper's narrow interpretation, however, this AB 1900 definition also says nothing about "comingling with natural gas", nor does it limit a "dedicated pipeline" to a pipeline conveying gas to a single specific generation facility. SMUD's dedicated pipeline use is a structure that is completely consistent with the AB 1900 definition.

Should the Concept Paper's narrow definition or interpretation remain, SMUD's delivery of biogas to CPP would presumably be construed as being delivered through a common carrier pipeline. However, SMUD does not have a "common carrier" pipeline in any

sense of the word under either Federal or state law. For example, the typical tariffs and market rules governing third-party delivery through a contract carrier or common carrier pipeline do not apply. In addition, while SMUD's current delivery of biomethane began and was reported to the CEC prior to March 19, 2012, any future SMUD plans to deliver in-state biogas from sources connected up to our dedicated pipeline would fall under the new biomethane eligibility rules established by Section 399.12.6.(b)(3)(C). This would require SMUD to prove that these new sources provided one of the California specific benefits in that subparagraph, and SMUD contends that there is no reason for this requirement for sources connected to our dedicated pipeline. Attachment 3 contains a more detailed description of SMUD's dedicated pipeline system.

Thus, while SMUD supports the Staff Paper conclusion that the term "dedicated" refers to a specific consumer of the gas, it also notes that a dedicated pipeline could be used exclusively to serve multiple generating facilities owned by a single consumer of gas. Accordingly, SMUD requests that a dedicated pipeline be defined to include any private pipeline that only serves the needs of a single entity. Such an interpretation is consistent with a similar definition of a Plant Line or Limited Use Pipeline used by the FERC to determine the reach of its jurisdiction. According to FERC, in order to qualify as Plant Line or Limited Use Pipeline the pipeline must be used and owned exclusively by the same entity that owns the connected plant or facility.¹ As a rationale for this exemption from FERC jurisdiction, the FERC has concluded that the pipeline is considered to be such an "integral part of the physical plant" of the customer that the natural gas ceases to be in interstate commerce upon delivery to the plant line.²

D. Clarify What Parts of 2196 Apply To Non-Common Carrier Biomethane, Including On-site Generation Using Digester Gas And Landfill Gas.

On page 2 of the Concept Paper, CEC Staff indicate that the definition of biomethane included in AB 2196 implies that some provisions of AB 2196 apply to all sources of biomethane, including facilities that are simply those using landfill gas or digester gas on-site. The Concept Paper indicates that this is a plain reading of the statute. SMUD encourages the CEC to clarify what provisions of AB 2196 they intend to apply to which sources, and how. In addition, SMUD encourages the CEC to make an interpretation of the statute that prevents inappropriate and retroactive procedures to verify the eligibility of existing small landfill gas or digester gas facilities, and avoids imposing somewhat absurd requirements on new on-site sources within the state.

² Cascade Natural Gas Corp. v. Northwest Pipeline Corp., et al., 44 FERC ¶61,081, 61,245 (1988).

¹National Fuel Gas Distribution Corp., 94 FERC ¶61,136 at 61,522 (2001).

For example, it may appear that 399.16(a)(2) would apply to all sources, since the subsection does not use the term "common carrier pipeline", and to all production of biomethane – landfill gas or digester gas – from March 29th forward. However, SMUD would argue that the Legislature did not really intend to subject existing sources of onsite landfill gas or digester gas generation to questions about extending the terms of their contracts or utilizing additional gas that may become available on-site. There was no discussion of such a possibility as the legislation was being drafted, modified, and enacted, and while probably not a strong barrier to anything, a strict interpretation here could trigger onerous documentation requirements if on-site digester gas or landfill gas generation contracts were extended or afforded additional gas.

In addition, it would appear that Sections 399.16(c)-(f) may apply to all biogas projects – existing and new, on-site or common-carrier, since these subsections also do not use the term "common carrier pipeline" and have no reference in general to the central March 29th, 2012 date in the law. However, it would appear to make little sense for these on-site generation facilities to participate in the tracking system described in 399.16(d), verifying the use of the biomethane, as it is clear where the biomethane is used in these cases. While the plain language of the statute may say that 399.16(d) applies, the CEC should simply state that these facilities are sufficiently tracked through the existing WREGIS structure. Other provisions here seem to not be barriers to new on-site facilities and seem relatively innocuous for most existing facilities, but the CEC should avoid any interpretation here that acts to complicate the current eligibility of existing landfill gas and digester gas on-site generation.

E. Answers To "Outstanding Issues And Questions".

- 1. AB 2196 places restrictions on the direction of the gas flow in a common carrier pipeline if biomethane is delivered through it to an electric generation facility for purposes of the RPS. Staff understands that some common carrier pipelines are unidirectional, and others are bi-directional, where parallel pipelines deliver gas in opposite directions.
 - a. For common carrier pipelines that physically flow within California, please discuss how the Energy Commission can be assured that the biomethane remains within the state's geographic borders.
 - b. For pipelines that do not physically flow within California's geographic borders, please provide examples of how a retail seller or POU can document that the delivery of biomethane was through a common carrier pipeline that only physically flows in the direction of the electrical generation facility.

Answer: SMUD does not believe that the questions accurately reflect the legislation or legislative intent. Section 399.12.6(b)(3)(A) requires that the source of biomethane for contracts signed after March 29, 2012 is injected "... into a common carrier pipeline"...

that physically flows within California or toward the generating facility for which the biomethane was procured under the original contract."

With regard to the first question, there is nothing in the AB 2196 language that would require proof that the biomethane injected into a pipeline that "flows within California" remains within the state's geographic borders. SMUD believes that the intent of this language was to insure that any legislative or regulatory pipeline flow requirements would not prevent future procurement of biomethane injected into an in-state pipeline, regardless of the direction of pipeline flow within the state. There was no intent to prove that the biogas molecules would "remain" in the state.

However, since California uses more natural gas than it produces – California is a strong net importer of natural gas – SMUD believes that most biomethane injected into a pipeline that physically flows *within* California *will* generally stay in the state. SMUD does not believe it is feasible to guarantee that all biomethane molecules injected will stay in the state, and strongly encourages the CEC not to establish an impossible test that is not required by the law.

With regard to the second question, again the question seems to go beyond the actual legislative language. AB 2196 only requires that gas is injected in a pipeline that "...physically flows... toward the generating facility for which..." the gas was procured. There is no requirement in this language that the injected gas "only" flows in this direction, and the CEC should not develop nor include such a requirement. Again, California is a strong net importer of natural gas, so natural gas or biomethane injected generally does and will flow toward the state. However, circumstances may occasionally exist where this flow is reversed for brief periods, and SMUD does not believe that AB 2196 requires constant flow toward the state. SMUD suggests that a reasonable interpretation of AB 2196's restriction here is some proof that gas normally flows from the injection point of the biomethane toward California, and again encourages the CEC not to establish a requirement that will be nearly impossible to meet and is not found in the law.

2. AB 2196 requires the Energy Commission to verify the transaction for the procurement of landfill gas, digester gas, or another renewable fuel delivered to the facility through a common carrier pipeline, including the source of the fuel and the delivery method, using the accounting system required pursuant to Public Utilities Code 399.25 or a comparable system.

AB 2196 also requires all sellers and purchasers of biomethane (defined as "landfill gas" or "digester gas") to comply with a system for tracking and verifying the use of biomethane, including but not limited to biomethane delivered through a common carrier pipeline, as established by the Energy Commission, that is equivalent to the system required by subdivision (c) of Public Utilities Code Section 399.25.

Relevant language in Public Utilities Code Section 399.25(c) states that the Energy Commission shall "establish a system for tracking and verifying renewable energy credits

that, through the use of independently audited data, verifies the generation of electricity associated with each renewable energy credit and protects against multiple counting of the same renewable energy credit."

- a. Please provide information regarding the systems currently in place for tracking the use of landfill gas, digester gas, or another renewable fuel delivered to an electric generating facility through a common carrier pipeline. Include metrics for volume and heat content, for both production and capture of landfill gas, digester gas, or another renewable fuel delivered through a common carrier pipeline, injection into the pipeline if applicable, and delivery to the generating facility.
- b. Please provide information regarding the systems currently in place for tracking the use of landfill gas, digester gas, or another renewable fuel delivered to an electric generating facility through a common carrier pipeline, to ensure that contract requirements for delivery of the fuel to the electric generating facility are met. Include metrics for volume and heat content, for both production and capture of landfill gas, digester gas, or another renewable fuel delivered through a common carrier pipeline, injection into the pipeline if applicable, and delivery to the generating facility.

Answer: SMUD does not understand the distinction, if any, between these two questions, so provides the answer below as applying to both. Biomethane procurement follows the standard rules in the natural gas pipeline marketplace for tracking injection, transfer contracts, and designated use in power plants. These transactions are common market documents. Verification of heat content is done as the biogas is injected -- the biogas must meet standard pipeline quality requirements including heat content. Once intermixed, verification of heat content through the pipeline is moot and should not be required. Verification of volumes is relatively straightforward and performed adequately today, from the injection source, through contract pipeline paths to the designated source. SMUD and other market participants can provide examples of how this verification is done, and in fact required by the market transaction. Here is a bullet illustrating this verification process:

- In general, biomethane from a landfill or digester gas project (after cleaning to pipeline quality) is injected into a pipeline.
- The volume and the heat content of biomethane injected is measured daily via a meter at the injection point.
- That biomethane is delivered through the interconnected, common carrier pipeline system from point to point via volume or capacity contracts, eventually into California.
- Heat content is moot once injected into the pipeline. Gas is intermixed, and the important numbers are the measured heat content at injection and the measured heat content of the consumed gas.
- Due to differences in planned versus actual daily production, volumes are "trued up" over a month to meet contractual requirements.

- The volume and heat content of gas consumed is measured daily via a meter at the designated facility.
- The injected volumes and the consumed volume are converted to BTUs using the different heat content of each fuel (fully pipeline quality biomethane will usually have a heat content fairly close to the natural gas range)
- The percentage of fuel use from biomethane at the designated facility is then calculated (BTUs biomethane injected/BTUs gas consumed at plant), and provided each month to WREGIS within 90 days after the month.
- WREGIS posts RECs from biomethane from the facility on day 91 after month of consumption.
- WREGIS requires calculation of and documentation of fuel used and requires maintenance of data for such calculations for two years. This data is subject to audit by WREGIS.
- This data is reported annually to the CEC through WREGIS compliance reports.

In addition, biomethane delivered to California that meets certain conditions is deemed to not have a GHG compliance obligation under the AB 32 Cap and Trade structure. ARB treats this combustion of biomethane as having no GHG compliance obligation. like solid fuel biomass, since the resulting CO2 is not geologic in origin, so is not "incremental" to the atmosphere. Similar to other renewables, there is a GHG benefit from displacement of natural gas use. For this treatment, ARB generally requires that the biomethane be "additional", not simply a "shuffling" of a biomethane resource from outside the capped region. The fuel must be from an "increase" in fuel production, or a new use of the fuel for energy production – where rather than venting or flaring, electricity is produced. Such biomethane delivery and use is fully reported under the ARB's Mandatory Reporting Regulation, and hence is fully verified by independent verifiers under that regulation, providing a second independent verification process. IN that process, facility operators must report and verify biomethane use, with documentation including invoices, shipping reports, allocation and balancing reports, storage reports, and in-kind nomination reports. All contracts must be made available for verifier or ARB review to demonstrate the receipt of eligible biomethane

- 3. AB 2196 requires that for all electricity products generated using biomethane, sufficient renewable and environmental attributes are transferred to a retail seller or POU to ensure that there are net zero emissions associated with the production of electricity from the generating facility using the biomethane. The Energy Commission staff defers to the CPUC to implement this provision for retail sellers.
 - a. Please provide information on how the Energy Commission could verify whether sufficient environmental attributes were transferred to a POU to ensure that there are net zero emissions associated with the production of electricity from the generating facility using the biomethane.

Answer: In general, these attribute transfers are handled in renewable contracts through terms required in the contacts as the power, or biomethane is procured.

Hence, initial verification rests with looking at the contract terms and accepting that no breach of contract has knowingly occurred. For example, a biomethane contract might have the following language included (from a SMUD biomethane contract):

"... if the Facility or Alternate Facility receives any credits, carbon benefits, carbon emission reductions, carbon offsets, allowances, or payments identified in 14.12 (iii) above, and attributed to the RNG produced, Seiler shall provide Buyer with sufficient Conveyed Environmental Attributes *to ensure that there are zero net emissions associated with the production of electricity from Buyer's electric generating facility*. (Emphasis added)."

Typically, this would mean transferring sufficient environmental attributes to offset the emissions from generation at the facility using natural gas. Hence, if the source facility simply refrains from any markets related to credits from displacement of natural gas generation associated with the biomethane injection, and explicitly transfers rights to those 'attributes' to the procuring party, this standard is met.

4. AB 2196 restricts retail sellers, POUs and intermediaries to biomethane procurement contracts from making marketing, regulatory, or retail claims of greenhouse gas (GHG) reductions related to the destruction of methane. If the capture and destruction of the biomethane is required by law, a retail seller, POU or intermediary to the biomethane contract may not claim that the contract resulted or will result in GHG reductions associated with the capture and destruction of methane. If the capture and destruction of the biomethane is not required by law, a retail seller, POU or intermediary to the biomethane contract may claim that the contract resulted or will result in GHG reductions associated with the capture and destruction of the methane under two scenarios.

The first scenario is if the environmental attributes associated with the capture and destruction of biomethane pursuant to the contract are: 1) transferred to the retail seller or POU that purchased the biomethane, 2) retired on behalf of the retail customer consuming the electricity associated with the use of that biomethane, and 3) are not resold by the retail seller or POU. The second scenario is if: 1) the biomethane contract prohibits the source of the biomethane from separately marketing the environmental attributes associated with the capture and destruction of the biomethane sold pursuant to the contract, 2) the environmental attributes are retired on behalf of the retail customer consuming the electricity associated with the use of that biomethane, and 3) the environmental attributes are not resold by the retail seller or POU. The Energy Commission staff defers to the CPUC to implement this provision for retail sellers.

a. Please provide information on how the Energy Commission could verify whether a POU's biomethane procurement contract contains terms and conditions (or has the potential to address) pertaining to the environmental attributes associated with GHG reductions associated with methane destruction.

b. Please identify and describe any existing systems or processes that a POU could use to demonstrate to the Energy Commission that the environmental attributes associated with GHG reductions acquired by the retail seller or POU are retired and not resold or available for another purpose. For example, could the Green-e©7 "Climate Certified Carbon Offsets" be used to demonstrate that GHG reduction attributes have been retired and are not available for another purpose?

Answer: In general, the CEC could verify whether a POU biomethane contract contains any environmental attributes associated with on-site methane destruction via attestation by the POU that no such terms are in the contract, and by examining or auditing the contract to verify this attestation. POUs are public entities, and any transfer of such attributes and or strategies to achieve additional value through the resale of such attributes would be subject to public scrutiny at their Board meetings.

Thank you again for the opportunity to comment.

/s/

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Attachment 1: Approximate Transcript of Senators' Comments At Senate Floor Session, August 23, 2012.

3:47:30 – Senator Roderick Wright:

The challenge here members is that a number cities, some of which I represent and some of which you may represent, have entered into contracts that were based on the law as it was written at the time the Energy Commission essentially rescinded the validity of those contracts, which by the way should also be illegal. They made a determination that they were going to rescind the value of those contracts retroactively and now they are looking for us to ratify what they did. We shouldn't do it. The challenge that we have is many of those cities that entered into those agreements would be left holding the bag. I can't support this one because it goes back. I don't want to ratify what the Energy Commission did. Yeah, they've made a change here or there to put cosmetic on it, but it's just lipstick on a pig. It is now a bad bill and I would advise everyone to vote no. It would have been a good idea if we had taken those contracts that were written and we had protected the cities who had attempted to abide by the law. If you want to make something that is prospective, than you know what, you don't need to go into the contracts, you would say we are changing the requirement and all of the language of this month, that month, January, March wouldn't matter. The reason that you have to put all of that gobbledygook in is because you are trying to make unclear the fact that you are retroactively changing the contracts that those cities entered into. We should not ratify what the Energy Commission did. They had no authority to override the legislation and this should be a no vote.

3:51:20 – Senator Ted Lieu:

I rise in very strong opposition to this bill. ...the bill does something that we should never, ever do which is go backwards in time and retroactively change the law and standards. People have a right to rely on our laws. People enter into contracts that rely on our laws that are existing. What the bill does, regardless of what you think the Energy Commission did, they made a decision sometime in March, and I disagree with it but, at least people got notice in March of this year that hey there's some issues with biomethane and how it applies to RPS standards. So, if you want to take March going forward, and apply a new standard, fine. Except this bill does something in addition to that, it also applies to contracts before March when there was never any Energy Commission decision, where there was no notice to people. They were contracting based on the law as it was then and as it is now. This bill, if it became in effect, would go backwards prior to March of this year and change the law. We cannot do that for

any reason. The fact that the author feels compelled to talk about contracts before March means they are trying to apply a new standard to it... We are a government of laws. People have reliance on those laws. We can't go backwards and change them.

3:53:24 - Senator Carol Liu:

I must also oppose this bill because it does affect two of my munis and I would agree with those who are opposed to this bill that this bill is retroactive, bad public policy, and devalues legal contracts, and increases rates to my consumers and I just cannot support this bill.

3:53:51 – Senator Tom Harman:

I agree with both the senators' Lieu (Liu). We should not be doing this. This is a situation where the municipal utilities, in particular, are going to experience hundreds of millions of dollars of additional costs if this bill is passed into law and that will just be passed on as rate increases to the consumers. But I thought Senator Ted Lieu really hit the nail on the head, this is frankly illegal. It is, I believe, probably a violation of the Constitutional prohibition against impairing the rights of contracts. These are people or entities that have valid, legal, enforceable contracts and here the legislature is about to pass a bill that's gonna neutralize those and revoke them. So I encourage a no vote.

Senator Joe Simitian:

Members, sometime people just won't take yes for an answer. The debate we had in the Energy committee, in the Environmental Quality committee, and in the Appropriations committee, was about two things and two things only. The first thing was, are we going to give people grandfathered credit for contracts prior to the March 2012 date and, in spite of the fact that there is some controversy about whether or not those contracts should be credited, the legislation we have before us gives those contracts full grandfathering credit. And again I would say, take yes for an answer. Look at the digest of the bill on your computer screen, the March date is there. Look at the bill, the March date is there. People said we should be credited for these contracts, there was a debate about that subject, but, ultimately, the author went forward with a bill, in spite of the fact that it was a concern to some of us, with a bill that said all of the contracts prior to that March date will be counted and grandfathered for purposes of RPS compliance. Take yes for an answer. ...but the bottom line on this issue is, we are giving the grandfather date that was asked...

3:59:06 – Senator Roderick Wright:

Again the challenge becomes, if we weren't making changes to the original statute, if the Energy Commission hadn't done a regulation, which again I believe is illegal, then there would be no need for the bill. You wouldn't be talking about March or January or any other date. The reason you're discussing grandfathering is because you're making a change to the original statute. Now whether or not it's a good date or bad date is perfectly irrelevant. The fact of the matter is, is that the law was passed, if you believe that the law doesn't say that then the court will decide what we did. What you're attempting to do here is post-facto ratify a decision made by the Energy Commission, that some of us believe to be illegal. If it's not illegal then you wouldn't need to come and do the statute in the first place. That's why you should vote no. The statute that you passed did not provide for the Energy Commission to unilaterally make decisions as to what would and would not count. Whether or not it was bucket one or bucket two or bucket three, if there is a contention that those cites who entered into those agreements had acted illegally pursuant to the law, then the Energy Commission should have ruled relative to the law. They did not. What they did is they passed a moratorium, over which they had no authority to do, that's why you should vote no and let the statute stand and let the regulations that were passed by this body stand. Bucket one, bucket two, bucket three, your daddy's bucket, it doesn't matter. The challenge becomes is this should not be a case where you retroactively change a law and you alter the course of people who entered into contracts under good faith. I would ask for a no vote.

4:01:11 – Senator Ted Lieu:

There was a very easy way to fix this. I offered a suggestion; just have the bill apply to contracts after the March date. That's all it had to say. But they didn't want to do that. The author didn't want to do that because they wanted to grandfather these contracts so then they could apply a different standard than what people understood. Just have the bill apply to the date that the Energy Commission had their meeting going forward. That's why this whole discussion, when you think about it, it only happens because the bill is going backwards prior to March. Respectfully request a no vote.

Attachment 2: E-mail text documenting CEC discussions of Heartland contract.

Hi, Joseph:

> George,

We are confused on whom is supposed to do what and I appreciate your attempt to make things clear to us. Please don't interpret my comments, concerns as being directed at you, by any means; you've been very patient with our many questions.

What we are trying to obtain - to show to the investor group behind our plant - is evidence that we have a firm and binding deal in conjunction with what ever state approvals are required to provide our 'green gas' to a long-term buyer. We think that it is only with such evidence that our investors will proceed to financial close and provide Heartland with the funding to go into gas plant construction.

Thank you for the offer of a conference call with whomever you think should attend to help us sort this out. Please suggest some dates, time windows that are good at your end for such conf. call.

A question: it would appear from your point in the email that CEC does not (will not) certify our clean methane production plant and it also appears that the identified SMUD generating station is already certified by the CEC to burn biogas derived methane. If true, is there any other CEC certification required to allow SMUD and HRE to reach a binding agreement?

I'm mindful of the gas transport path we corresponded upon earlier. If no other CEC certification is needed, can HRE get a letter from CEC that our gas proposed path is acceptable?

Regards and thank you......George Howard/Heartland

> We do not certify digester gas injection facilities; we certify
> electric generation facilities. Therefore, we cannot and will not
> certify the facility where you create and inject your digester gas.
> We can and will only certify the place where the gas is delivered and
> burned. I want to make this absolutely clear because I think we might
> have had this same misunderstanding before.
>
> SMUD's Cosumnes plant is already certified. We can't pre-certify it
> because it's already certified. We've never had this happen before
> where additional biogas is added later.

> SMUD's Cosumnes plant is already certified. We can't pre-certify it
> because it's already certified. We've never had this happen before
> where additional biogas is added later.
>
> The problem is, I believe, an administrative one, so I sent my last
> email hoping to be able to work with you on getting a form of
> documentation that is satisfactory to you but also possible within the

> constraints of our current Guidebook and forms. My intentions were
> only benevolent in my previous email; I hope that we can work together

> to come up with something that everyone is happy with.

```
> If you'd like, we can set up a conference call and discuss this with
> my supervisor and whomever you'd like to attend.
> Thank you,
> Joseph Fleshman
> California Energy Commission
> 916-654-4163
> jfleshma@energy.state.ca.us
>
>>>>
            <ghowardiv@heartlandrenew.com>
> From:
> To: "Joseph Fleshman" < <a href="mailto:JFleshma@energy.state.ca.us">JFleshma@energy.state.ca.us</a>>
> CC: "Barry Brunelle" <bbrunel@smud.org>, <tjkrem@vcn.com>,
> <rdirstine@heartlandrenew.com>
> Date:
            9/4/2009 12:51 PM
> Subject:
            Re: pre-certification of Heartland's digester based gas supply
> Hi, Joseph:
   We are quite concerned about the pre-certification situation that
> you describe below because without pre-certification that our plant
> gas qualifies and our gas delivery route is acceptable, we could find
> it impossible to close on the financing we have arranged.
> As I am sure that your can appreciate, any uncertainty in the view of
> the financing party could cause this whole thing to seize up. One can
> hardly expect the investor group to step up with over $30 million
> dollars if it doesn't see a binding off-take agreement for the renewables based
gas.
>
   Also, I'm puzzled about this matter because the 2008 CEC report on
> this subject seems to say that such pre-certification by the CEC "is
> available." After reading the material appended below, we realize now
> that we need to submit a form to you which we failed to do when sent
> went our letter requesting pre-certification; we will shortly.
   We'd certainly appreciate hearing from you about this when you folks
> return from the Labor Day weekend. Hope it was a good one.
    Regards....George Howard
> BELOW IS FROM PAGE 29 OF THE CEC 2008 REPORT
    Provisional or "pre-certification" as an eligible
>
> renewable resource is available for applicants whose facilities are
> not yet on-line. Applicants seeking pre-certification must complete CEC-RPS-1B.
> The information submitted by these applicants will be subject to
> further verification once the pre-certified facility comes on-line.
> Applicants must indicate their desire to be pre-certified on their
> completed CEC-RPS-1B form and must submit all required supplemental
> information, as described below, to the extent that information is
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> available. If the additional required information is not available at
> the time of precertification because of the facility's stage of
> development, then the applicant must explain this in its application
> and identify the missing information and the date(s) when the
> information is expected to be available. Facilities that are
> pre-certified must submit a complete and updated certification
> application (CEC-RPS-1A) with all additional required information and
> be certified as RPS-eligible before any of its generation may be
> counted toward satisfying a retail seller's RPS procurement
> requirements
>> George,
>> I spoke with my supervisor and we have a weird paperwork issue (not
>> bad, no worries).
>>
>> The problem is, we can't pre-certify the facility, because it's
>> already certified and online generating renewable energy. We also
>> can't certify the facility with the new reduced fossil fuel usage,
>> because your biogas isn't being used yet. So we're in this weird
>> situation that's never come up before where you can't pre-certify OR
>> certify.
>>
>> So what we can do instead is give you something saying that we
>> approve of your delivery scenario that you faxed in, and you/SMUD
>> wouldn't need to give us any more documentation until you start
>> delivering. At that point, we would need all the forms and
>> supplemental attestations. Would that be helpful in your
>> negotiations with SMUD? I can send you something via email - would
>> that be acceptable or are you looking for something more official?
>>
>> Thank you,
>> Joseph Fleshman
>> California Energy Commission
>> 916-654-4163
>> jfleshma@energy.state.ca.us
>>
>>
>>
> ------ Original Message ------
Subject: CA RPS - Biogas
        "Joseph Fleshman" <JFleshma@energy.state.ca.us>
Date:
        Tue, July 28, 2009 3:48 pm
      ghowardiv@heartlandrenew.com
To:
```

George,

We've been playing phone tag so I figured it might be easier to explain via email. For this email, these are my assumptions:

* Your digester gas facility is located outside of California and that facility will inject the biogas into a natural gas pipeline.

* The electric generation facility that will be nominated to "use" the biogas will be located in California.

All page references in the following refer to the RPS Eligibility Guidebook, 3rd Ed., found here:

http://www.energy.ca.gov/renewables/documents/index.html#rps

If there is no contract for the gas and no delivery yet, the electric generation facility can only apply for pre-certification (1B, 1B:S1 forms). Once a contract is in place and biogas delivery begins, then the electric generation facility could apply for full certification (1A, 1A:S1).

All questions on the forms relate to the electric generation facility. We only certify electric generation facilities and not biogas injection facilities.

The electric generation facility, or an agent thereof, will:

- * Fill out the appropriate forms (e.g. 1B, 1B:S1).
- * Include a cover letter stating "its intent to procure biogas fuel that meets RPS eligibility criteria." (pg. 21)

From the biogas injection facility, we require:

- * A signed attestation (hard copy with wet signature) from the biogas supplier stating that the fuel meets the RPS eligibility criteria for that type of biogas (digester gas, landfill gas, etc.) (pg. 21) A sample PDF is attached.
- * A description of the proposed biogas pipeline path for delivery to California. At this time, physical delivery is required, and delivery cannot be accomplished via displacement/backhaul. Staff plans to bring alternative delivery scenarios before the Renewables Committee next week, at which the Committee will clarify which (if any) alternative delivery scenarios are eligible. A sample pipeline path is attached as a text file.

Also attached is text file with a more verbose biogas measurement methodology that expands the one in the guidebook (RPS 1B:S1 form, Section IV, Question 3, Bullet 3).

I'm sure you'll want to discuss this further. Send me an email or give me a call and we can talk more.

Thank you,
Joseph Fleshman
California Energy Commission
916-654-4163
jfleshma@energy.state.ca.us

Hi, Barry:

Immediately below is the essence of what I received from Brian McCullough at CEC..... George Howard

As we have already approved the delivery scenario, once you mail in an attestation that the gas injected into the pipeline for use at SMUD's Consumnes

power plant is from a renewable source, meets California RPS program requirements, and includes all of the environmental attributes similar to the attached one from Shell (changing it to reflect your injection of digester gas instead of landfill gas). If you could add an additional sentence to the attestation (beyond what the attached one has) that states that the RPS-eligible gas will be injected into the natural gas transportation pipeline system and delivered into California consistent with the delivery requirements of the guidebook, then we'll have everything we need from your facility.

As we certify the electrical generating facility, SMUD will need to amend (via an e-mail update should be fine) their RPS Certification for the Consumnes plant to reflect the additional renewable generation expected from the additional RPS-eligible fuel that your facility will be providing.

Please let me know if you have any further questions, and have a good day.

Thanks, Brian

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> Sounds right, I called my contact (Elaine) to ask her to confirm, so
> when she gets back to me, we should be all set.
> ----Original Message----
> From: ghowardiv@heartlandrenew.com
> [mailto:ghowardiv@heartlandrenew.com]
> Sent: Tuesday, July 13, 2010 12:05 PM
> To: Barry Brunelle
> Cc: Chad Adair; tjkrem@vcn.com; rdirstine@heartlandrenew.com
> Subject: Heartland and CEC Certification of Consumes Power Plant for
> HRE gas
> Hi, Barry:
      I just spoke with the CEC's Brian McCollough and he understands
> that the steps needed are:
> (1) for Heartland HRE)to send a letter of attestation that the
> scrubbed digester gas that HRE will deliver via pipeline to the
> Consumnes Power Plant meets the RPS program requirements; and,
    (2) that SMUD needs to amend the Consumnes Power Plant RPS
> certification such that HRE's gas is acceptable for generation of RPS-
> qualified electric power.
    Brian at the CEC said he would send me an example letter of
> attestation.
   Does the above appear to you to be adequate? And will we get a copy
> of the amended Certification so that we have proof of same for our
> financing sources?
  Thank you, Barry..... George Howard/Heartland
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CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET SACRAMENTO, CA 95814-5512 www.energy.ca.gov



December 14, 2009

George Howard Heartland Renewable Energy, LLC 2400 Trade Center Avenue, Suite 201 Longmont, CO 80503

RE: Delivery Scenario Pre-Approval of Biogas Injected into a Natural Gas Pipeline for California Renewables Portfolio Standard

Dear Mr. Howard:

The California Energy Commission, through its staff, has reviewed the proposed biogas delivery scenario from the Heartland Renewable Energy digester gas plant in Weld County, CO to the SMUD-owned Cosumnes Power Plant in Herald, CA (RPS ID# 60760A), as described in the facsimile transmittal dated August 18, 2009. A copy of this facsimile transmittal is enclosed.

Assuming that all other eligibility requirements for the Renewables Portfolio Standard (RPS) are met regarding the electric generation facility and the nature of the digester gas injected into the pipeline, the Energy Commission staff has determined that the proposed delivery structure would meet the RPS delivery requirements according to the *Renewables Portfolio Standard Eligibility Guidebook* (CEC-300-2007-006-ED3-CMF, January 2008).

Tony Conçalves

Manager, Renewable Energy Office California Energy Commission

Enclosure

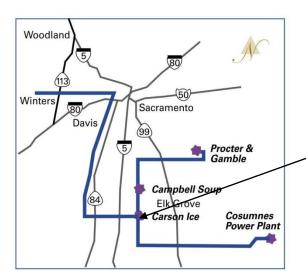
Attachment 3: Description of SMUD Dedicated Pipeline System

SMUD owns and operates a dedicated 76-mile gas pipeline. The pipeline is designed to move approximately 190 million cubic feet of gas per day from the PG&E pipeline system to four gas-fired power plants in Sacramento County. The northern portion of the pipeline was constructed in the mid-1990s to serve three new cogeneration power plants being constructed by SMUD. These plants, which came on-line in 1995-1997, provide a total of 423 MW of electricity for SMUD's customers as well as steam energy to three local industrial facilities. This part of the pipeline was licensed by the CEC in the licensing application 92-AFC-PC. Information from the original licensing proceeding appears not to be available on the CEC website.

The southern portion of the pipeline, south of the Carson Ice-Gen cogeneration facility (Central Valley Financing Authority, or CVFA), was constructed in the mid-2000s to supply gas to the Cosumnes Power Plant, a 500 MW combined cycle plant that came on-line in 2006. This part of the pipeline was constructed as part of the licensing for CPP, in the licensing application 01-AFC-19. The CEC decision approving the project states: "Natural gas for the first 500 MW (Phase 1) of the project would be supplied to the project site by extending a natural gas pipeline 26 miles that would originate at the Carson Ice-Gen cogeneration Facility, in Sacramento County."

(http://www.energy.ca.gov/sitingcases/smud/documents/2003-09-10 DECISION.PDF.)

The pipeline capacity is sufficient to provide all of the gas needs for all of the plants, in all operating conditions. There are no retail customers served by the line – only the SMUD power plants described above. A diagram of the SMUD pipeline system is provided below. SMUD is injecting the biogas into the pipeline as shown on the diagram, just south of the Carson Ice-Gen cogeneration facility. Flow on the pipeline is toward CPP nearly all the time, and there are no other points on the line between the injection point and CPP where the biogas can be used. The pipeline is dedicated to SMUD's use only, and meets the intent of the CEC definition of a dedicated pipeline -- a system moving the biogas directly to the generator. However, the SMUD pipeline also carries natural gas to CPP, which intermixes with the biogas. Since there are no other places on the line after the injection point where gas is extracted, this is identical to how biogas delivered by container and natural gas would mix during combustion in a multifuel facility.



SMUD's biogas is injected into the pipeline here. Basically, it can only flow to the Cosumnes Power Plant