BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program.	Rulemaking 11-05-005 (Filed May 5, 2011)

COMMENTS OF THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY ON THE PROPOSED DECISION REVISING FEED-IN TARIFF PROGRAM, IMPLEMENTING AMENDMENTS TO PUBLIC UTILITIES CODE SECTION 399.20 ENACTED BY SENATE BILL 380, SENATE BILL 32, AND SENATE BILL 2 1X AND DENYING PETITIONS FOR MODIFICATION OF DECISION 07-07-027 BY SUSTAINABLE CONSERVATION AND SOLUTIONS FOR UTILITIES, INC.

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The County Sanitation Districts of Los Angeles County (Sanitation Districts) respectfully submit the following comments in response to the proposed *Decision Revising Feed-In Tariff Program, Implementing Amendments to Public Utilities Code Section 399.20 Enacted by Senate Bill 380, Senate Bill 32, And Senate Bill 2 1x and Denying Petitions for Modification of Decision 07-07-027 by Sustainable Conservation and Solutions for Utilities, Inc.* (PD), issued on March 20, 2012.

Regarding the establishment of the proposed Feed-in Tariff (FiT), §399.20(d)(2) of the Public Utilities Code states that, "The commission shall establish a methodology to determine the market price of electricity… in consideration of… The value of different electricity products including baseload, peaking, and as-available electricity." The Sanitation Districts support the PD's Re-MAT pricing methodology. The establishment of three different product types with independent price adjustments is consistent with the legislation as it recognizes the different

market prices and values of the three product types. While RAM projects are not a perfect corollary to FiT projects for establishing the FiT pricing, RAM contracts are a reasonable price starting point, with the proposed price adjustment mechanism providing enough flexibility to establish a true market price in short order.

However, the Sanitation Districts have some concerns regarding the PD's treatment of biogas projects in terms of project timing and inclusion of environmental compliance costs. In addition, the Sanitation Districts do not find the PD's conclusion that a generator must be interconnected to the distribution system to be consistent with the statutory requirements.

I. DESCRIPTION OF THE SANITATION DISTRICTS

The Sanitation Districts are an organization of 23 independent special districts that provide wastewater treatment and solid waste management for 5.4 million residents of Los Angeles County. The Sanitation Districts treat approximately 460 million gallons per day of wastewater at 11 wastewater treatment plants and accept 9,000 tons per day of solid waste at three active landfills. These facilities, along with three closed landfills, produce biogas as a natural byproduct of the wastewater treatment and solid waste management processes. The Districts have a longstanding commitment to develop their biogas resources for the production of renewable energy. Currently, the Sanitation Districts produce 80 MW of RPS-eligible electricity from biogas at five power plants. In addition, three of the Districts' wastewater treatment plants and one of its landfills that do not currently produce electricity have the potential to produce an additional two MW, while three other landfill gas generation facilities face potential closure due to declining gas flows. The FiT represents a potential opportunity to develop new renewable generation projects at these sites that up until now have not had an economically viable pathway for the development of their biogas resources.

II. COMMENTS

A. The PD Does Not Recognize the Unique Nature and Longer Timing of Biogas Projects

The Sanitation Districts are concerned with the fact that the PD treats all product types equally in terms of project timing and does not recognize the inherent differences that exist for baseload projects, and in particular for biogas generation projects built by public entities. In this way, the PD shows an apparent bias toward the peaking as-available and non-peaking as-available product types, which will apparently be made up primarily with solar and wind generation projects respectively.

Biogas generation projects are more complex than other types of renewable generation projects such as solar and wind, and therefore take longer amounts of time to develop, design, construct and startup. Examples of the increased complexity of biogas generation projects include the need for gas collection and cleanup systems, gas compression equipment, custom-built generators, and emissions control and monitoring systems. In addition, biogas generation projects require time-consuming and costly air quality permits. Solar and wind generation projects do not contain these types of complexities, do not require air permits, and in many cases are made up of entirely off-the-self equipment that is readily available. The timing required by the PD for development, design, construction, and startup of FiT projects does not recognize the complexities inherent to biogas generation projects and will therefore likely lead to the exclusion of many biogas generation projects. In this way, the timing requirements are discriminatory against biogas generation projects and should be corrected.

The Sanitation Districts started up a new landfill biogas generation facility at its Calabasas Landfill in 2010. The facility produces 7 MW of electricity with combustion turbines.

While this facility is larger in size than the FiT project size limit of 3 MW, the project illustrates well the timing required to complete a biogas generation project. Project development began in 2005 and included activities such as site selection, securing gas rights, technology selection, air permit applications, and CEQA approval. This was followed by selection of a design consultant in September 2007, design of a complex custom-built plant, bidding for a construction contractor according to public works bidding laws, and construction. The plant initially started up in March 2010 and reached commercial operation in July 2010. In total, the project took approximately two years to develop (including site selection and technology selection) and obtain air permits, and three years to design, construct and startup. While this was considered record time for a public works project of this size, this time would have to be cut in half to meet the timing requirements of the PD, which is unreasonable for a 3 MW project.

1. The 18 Month Online Date Should be Extended to Recognize the Timing Required For Design, Construction, and Startup of Biogas Projects

Section 11 of the PD established project viability criteria that include an online date requirement of 18 months with one 6-month extension for regulatory delays. While this timing requirement may be reasonable for solar and wind generation projects, it is not reasonable for biogas generation projects, particularly for public agencies that must follow public works bidding laws. The timing of the Calabasas Landfill project illustrates this point. The following factors contribute to longer timing for these types of projects:

- Air permits typically take a full year to obtain in the South Coast Air Quality Management District (SCAQMD);

- Project design is more complex for biogas generation projects since they include many complex mechanical systems such as gas collection, gas compression, electrical generation, and emissions control and monitoring;
- The Boards of Directors of many public agencies require that generation projects be conducted in the typical design-bid-build process;
- Lead times for equipment procurement are typically drawn out since biogas generation equipment is not mass produced and must be custom ordered;
- Construction timing is longer for biogas generation projects due to the mechanical complexity of the included systems and the lack of off-the-self equipment; and
- The startup process can be lengthy since the large number of complex mechanical systems are prone to have unexpected startup delays.

For these reasons, it is recommended that the online date be extended to 30 months. As an alternative, an extension option could be added for justifiable design and construction delays of up to 12 months. In addition, it is recommended that the regulatory delay extension be extended from 6 months to 12 months to reflect the actual typical timing required to obtain air permits in the SCAQMD. These recommendations will help ensure that baseload projects have equal access to the FiT as compared to other product types.

2. The Reassignment of Capacity to Different Project Types after the Expiration of 12 Program Months Should be Extended to Account for the Timing Required to Develop Biogas Projects

Section 6.5 of the PD states that, "after Month 12, the utilities may reassign any capacity from a product type that has received minimal to no subscriptions during the previous 12-month period". Based on the formula proposed by the PD for the reallocation, all of a product type's capacity could be reassigned by month 17. The proposed schedule for capacity reassignment is

very aggressive given the complexity of developing biogas generation projects to the point that they are ready to submit a completed application, enter into the FiT queue, and accept a bid. The subscriptions for baseload product type projects may take longer to ramp up than those for other product types due to the complexity of developing a baseload generation project, including the following factors:

- The need to obtain air permits. Air permitting can create a great deal of project uncertainty as requirements can greatly impact the cost of the project. Therefore, biogas projects are not likely to enter into a contract until an air permit is nearly or already obtained. It currently takes approximately one year to obtain an air permit from SCAQMD.
- Technology selection often requires extensive review for biogas projects since several generation technologies are available that each present their own set of advantages and disadvantages.
- Development of project cost estimates take more time for biogas projects since facilities include complex generation systems that are custom designed for the facility. Standard "rules of thumb" do not exist like they do for solar and wind projects.

Therefore it is recommended that more time be provided for the development of biogas generation projects to enter into the queue and accept a bid before capacity reassignments occur. This could be achieved in any of the following ways:

- Simply extend the starting month of the capacity reassignment to Month 24. Then in order to achieve the PD's goal of minimizing ratepayer exposure to excessively high contract prices, a cap could be placed on the product price.
- Decrease the rate of the capacity reassignment.
- Stipulate that the reassignment of capacity occur a minimum of 12 months after the first price adjustment is triggered. In order to ensure that a price adjustment actually occurs for each category, it could be stipulated that for any product category that does not have sufficient eligible projects in its queue after 12 months, the price would be adjusted to be the average of the other two utilities prices for the same product type until there are sufficient eligible products to trigger a price adjustment according to the formula.

Any of these solutions would allow the additional time needed for biogas projects to enter into the queue and accept a bid before the capacity reassignments are triggered, and would help ensure that baseload projects have equal access to the FiT as compared to other product types.

B. The PD Should Allow Projects to Interconnect to the Transmission System in Certain Situations

Section 399.20 of the Public Utilities Code requires that FiT generation facilities must be "strategically located and interconnected to the electrical transmission and distribution grid in a manner that optimizes the deliverability of electricity generated at the facility to load centers".[1] Section 10 of the PD states that this requirement means that, "a generator must be interconnected to the distribution system, as opposed to the transmission system". This requirement is an oversimplification of the §399.20 criteria, since interconnection to the transmission system does

[1] §399.20(b)(3).

not necessarily preclude optimal delivery of electricity generated at the facility to load centers. In fact, the statutory language does not apparently conceive of this restriction against interconnection to the transmission system, since §399.20(n)(2) states that, "an electrical corporation may deny a tariff request pursuant to this section if the electrical corporation makes" the finding that, "The transmission or distribution grid that would serve as the point of interconnection is inadequate."

The Sanitation Districts have existing generation facilities that are interconnected to the transmission grid that are in need of repowering due to declining landfill gas flows. These facilities are located within urban centers in Southern California. It is likely that the existing interconnection facilities could be utilized for a new generation facility without the need for new transmission infrastructure. Utilization of these interconnection facilities would in fact optimize the deliverability of electricity generated at the facility to load centers, in compliance with the requirements of §399.20. The PD should be corrected to recognize that transmission interconnections in some cases are the most effective way to optimize the deliverability of electricity to load centers, in compliance with the criteria of §399.20.

C. Environmental Compliance Costs for the South Coast Air Quality Management District Should be Included in the Tariff

Section 399.20 states that, "The tariff shall provide for payment of every kilowatthour of electricity purchased from an electric generation facility… and shall include all current and anticipated environmental compliance costs… associated with the operation of new generating equipment facilities in the local air pollution control or air quality management district where the electric generation facility is located."[2] Regarding this statutory requirement, Section 6.2 of the

[2] §399.20(d)(1).

PD states that, "Re-MAT includes, as embedded within it, general costs associated with producing renewable energy since our goal is to pay generators the price needed to build and operate the generation facility. We do not find, however, that specific costs, such as compliance costs in a particular air quality management district, are necessarily captured by the RAM methodology. No party presented data on such costs." The Sanitation Districts would like to take this opportunity to present environmental compliance costs that are unique to the SCAQMD.

It is well documented that the SCAQMD is the most stringent air quality management district in the state. In fact, SCAQMD often leads the way in establishing new air quality requirements that may or may not later be adopted by other air districts. One such new requirement that is being proposed by the SCAQMD is amendments to Rule 1110.2 that pertain to emissions from gaseous and liquid fueled reciprocating engines. It is proposed that by as early as 2014, emissions limits for reciprocating engines be reduced to 11 ppm for NOx, 30 ppm for VOCs, and 250 ppm for CO. In anticipation of these reduced emissions limits, new air permits are already being held to this more stringent standard.

The Sanitation Districts have a 5.4 MW engine facility that will be impacted by the Rule 1110.2 amendments, and has therefore done extensive studies to determine the cost of retrofitting the facility to comply with the new requirements. A gas cleanup system would need to be added to the front end of the facility, primarily for siloxane removal. In addition, a catalytic oxidation and selective catalytic reduction system would need to be added to each of the facility's three engines. The cost of these control systems is estimated to be $9.8 million. In addition, the annual operation and maintenance cost for the additional control systems would be $566,000. Therefore, assuming a 20-year plant life and a five percent interest rate on the upfront retrofit

capital costs, the additional control systems would cost $28 per MWh. These costs would be somewhat lower if they were included with the construction of a new engine facility, but they would also be somewhat higher per MWh for a smaller FiT facility due to economies of scale. Other sanitation agencies in SCAQMD territory have conducted similar analyses for various other facilities and come up with similar compliance costs. More extensive data from the Sanitation Districts and other sanitation agencies can be provided to the Commission upon request.

The proposed amendments to Rule 1110.2 impose real costs on the current construction of new generation facilities in SCAQMD territory. Due to the high costs of the control systems needed for a compliant engine and the uncertain performance of these control systems for biogas generators, new reciprocating engines are not currently being considered for installation. Therefore, new engines are effectively ruled out, and more expensive generation technologies such as microturbines, fuel cells and combustion turbines must be utilized. These alternatives are on the order of two times more expensive per MWh as reciprocating engines.

The proposed amendments to Rule 1110.2 create environmental compliance costs that are specific to SCAQMD that, as the PD identifies, are not captured by the RAM methodology. In keeping with the requirement of §399.20(d)(1) that the tariff price "shall include all current and anticipated environmental compliance costs… associated with the operation of new generating equipment facilities in the local air pollution control or air quality management district where the electric generation facility is located", it is recommended that the Rule 1110.2 compliance costs be included in the tariff price for biogas generation facilities located in SCAQMD territory. This could be accomplished either on a case by case project basis, or by adding a general

environmental compliance cost to the tariff (such as $28/MWh) for projects located in SCAQMD territory.

III. CONCLUSION

The PD offers a very reasonable implementation method for the FiT program. However, the Sanitation Districts respectfully urge the Commission to make some small modifications to the PD in order to provide consistency with the statutory requirements and to ensure that baseload projects have equal access to the FiT as compared to other product types. In particular, the timing requirements for the online date and the capacity reassignment are discriminatory against biogas generation projects and should be corrected. In addition, the PD's requirement that a generator must be interconnected to the distribution system, as opposed to the transmission system, is not consistent with the statutory language, and should be modified to allow transmission-level interconnections where optimization of electricity delivery to load centers can be accomplished. Finally, the tariff pricing does not take in account the specific environmental compliances costs of the SCAQMD as required by §399.20, and costs for complying with proposed Rule 1110.2 amendments should be added to the tariff pricing. These modifications will help ensure a consistent and non-discriminatory application of the FiT that will encourage the development and participation of all types of renewable projects throughout the state.

Respectfully submitted this 9th day of April, 2012 at San Francisco, California.

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By */s/ Mark McDannel*
Mark McDannel

VERIFICATION

I am the Supervising Engineer for the County Sanitation Districts of Los Angeles County, and am authorized to make this verification on its behalf. I have read the attached "Comments of the County Sanitation Districts of Los Angeles County on the Proposed Decision Revising Feed-In Tariff Program, Implementing Amendments to Public Utilities Code Section 399.20 Enacted by Senate Bill 380, Senate Bill 32, and Senate Bill 2 1X and Denying Petitions for Modification of Decision 07-07-027 by Sustainable Conservation and Solutions for Utilities, Inc.," dated April 9, 2012. I am informed and believe, and on that ground allege, that the matters stated in this document are true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 9th day of April, 2012, at Whittier, California.

/s/ Mark McDannel
Mark McDannel

Mark McDannel, P.E. BCEE
Supervising Engineer

COUNTY SANITATION
DISTRICTS OF
LOS ANGELES COUNTY