# **Bioenergy Market Adjusting Tariff Statewide Pricing Mechanism Administration**

#### Introduction

The price adjustment mechanism under the Senate Bill ("SB") 1122 Bioenergy Market Adjusting Tariff ("BioMAT") program is based on the price adjustment mechanism in the Renewable Market Adjusting Tariff ("ReMAT") program. However, Decision 14-12-081 ("D.14-12-081") directs Pacific Gas and Electric Company ("PG&E"), Southern California Edison Company ("SCE"), and San Diego Gas & Electric Company ("SDG&E") (collectively, the investor-owned utilities or "IOUs") to administer a statewide price pool for BioMAT, which requires a number of modifications to the administration of the ReMAT pricing mechanism. At a high level, the IOUs will maintain IOU-specific queues for each bioenergy Fuel Resource Category, while subscription and market depth will be assessed on a statewide basis for the purpose of determining BioMAT contract pricing as described below. These provisions are further outlined in each IOU's respective tariff. Capitalized terms in this proposal that are not otherwise defined shall have the same meaning as the defined terms in the BioMAT Tariff.

## I. Queue Management and Capacity Allocation

As with ReMAT, each IOU will administer its own respective queues for each of the three bioenergy **Fuel Resource Categories** (*i.e.*, Category 1 (biogas from wastewater treatment, municipal organic waste diversion, food processing, and codigestion), Category 2 (dairy and other agricultural bioenergy), and Category 3 (bioenergy using byproducts of sustainable forest management)) and award BioMAT power purchase agreements ("PPAs") based on subscription on a first-come, first-served basis. An Applicant will submit a Program Participation Request ("PPR") for a Project to the IOU in whose service territory the Project is located, and execution of a BioMAT PPA will result in the capacity of that Project being attributed to the capacity target for the IOU with which the BioMAT PPA was executed.

The amount of capacity available for subscription for each Fuel Resource Category for any Period ("Available Allocation") throughout the program is IOU specific, and is the lesser of 3 megawatts ("MW") for SDG&E, 6 MW for PG&E, and 6 MW for SCE, and each IOU's total remaining capacity for a Fuel Resource Category, except as set forth in Section F.3 of the BioMAT Tariff for the Final Period.

For purposes of determining the Available Allocation for each Period, Category 2 is a single Fuel Resource Category subject to the IOU-specific allocation identified above. In other words, there are not separate capacity allocations for Category 2 (Dairy) and Category 2 (Other Agriculture).

### II. Price

The IOUs will jointly administer a pricing mechanism to establish a statewide BioMAT Contract Price for the four following categories: Category 1, Category 2 (Dairy), Category 2 (Other

Agriculture), and Category 3 (each a "Statewide Pricing Category"). The cumulative queues from each IOU by Statewide Pricing Category are each a "Statewide Pricing Queue." Note that Category 2 is treated as two separate categories for Dairy and Other Agriculture for price adjustment purposes (*i.e.*, determining market depth and subscription rates).

### A. Market Depth

There must be sufficient market depth in each Statewide Pricing Queue for a price adjustment to take place in that Statewide Pricing Category. Sufficient market depth, as outlined in the D.14-12-081, initially requires at least three eligible Projects from at least three different Applicants (including Applicant's Affiliates) in the applicable Statewide Pricing Queue to allow a price adjustment in that Statewide Pricing Category. Once at least one Project in a Statewide Pricing Queue accepts the Contract Price, there must be at least five eligible Projects from at least five different Applicants (including Applicant's Affiliates) in that Statewide Pricing Queue to allow a price adjustment in that Statewide Pricing Category. The Statewide Pricing Queues and Statewide Pricing Categories for Category 2 (Dairy) and Category 2 (Other Agriculture) are independent of each other and must separately meet these market depth requirements to allow for price adjustments in those separate Statewide Pricing Categories. Note, however, that these Statewide Pricing Categories share the same Available Allocation for purposes of executing BioMAT PPAs. In other words, Category 2 (Dairy) and Category 2 (Other Agriculture) may have different pricing, but Projects from both Statewide Pricing Queues and Statewide Pricing Categories share the same allocation of MW available for contracting. If these market depth requirements are not met for a Statewide Pricing Queue in any Period, then the Contract Price for that Statewide Pricing Category will remain the same in the next Period. See Section H.4 of the BioMAT Tariff for details.

#### **B.** Statewide Subscription

Pursuant to Section H of the BioMAT Tariff, and subject to the market depth requirements discussed in Section II.A above, price adjustments will be based on the Statewide Subscription and Statewide Subscription Rate for each Period.

"Statewide Subscription" is the total capacity of Projects for which Applicants accept the Contract Price in a Period for each applicable Statewide Pricing Queue. "Statewide Available Allocation" for each Statewide Pricing Category is the cumulative total of each IOU's Available Allocation for the applicable Fuel Resource Category for the applicable Period, except that the Statewide Available Allocations for Category 2 (Dairy) and Category 2 (Other Agriculture) are each defined as one-half of the cumulative total of each IOU's Available Allocation for Category 2 for the applicable Period.

Statewide Subscription and Statewide Available Allocation are defined as such due to the Category 2 "price screen" for dairy adopted in D.14-12-081, which allows for independently adjusting prices for Category 2 (Dairy) and Category 2 (Other Agriculture), creating a potential

misalignment between the MW subscribed and the MW available. This is because Statewide Subscription only counts price acceptance from Projects within the applicable Statewide Pricing Category (dairy *or* other agriculture), while the full Category 2 total of each IOU's Available Allocation (12 MW for Period 1) is available to both dairy *and* other agriculture. Accordingly, for determining price adjustment only, the "Statewide Available Allocation" for Category 2 (Dairy) and Category 2 (Other Agriculture) are each one-half of the IOUs' total cumulative Available Allocation for Category 2. The Statewide Available Allocation for each Statewide Pricing Category for Period 1 is included in Table 1 below.

Table 1: Statewide Available Allocation for Period 1

| Statewide Pricing<br>Category  | Statewide<br>Available<br>Allocation | Explanation   |
|--------------------------------|--------------------------------------|---|
| Category 1                     | 15                                   | 6 MW from PG&E and SCE<br>and 3 MW from SDG&E               |
| Category 2 (Dairy)             | 6                                    | Half of 12 MW (6 MW from                                    |
| Category 2 (Other Agriculture) | 6                                    | PG&E and SCE)   |
| Category 3                     | 9                                    | 6 MW from PG&E, 2.5 MW<br>from SCE and 0.5 MW from<br>SDG&E |

The "Statewide Subscription Rate" for each Statewide Pricing Category in a Period is the Statewide Subscription (MW) for the Statewide Pricing Category / the lesser of: (i) Statewide Available Allocation (MW) for the Statewide Pricing Category, or (ii) the total capacity (MW) in the Statewide Pricing Queue for the Statewide Pricing Category.

The Statewide Subscription Rate thresholds and corresponding price adjustments are outlined in Table 2:

Table 2: Statewide Subscription Rate Percentage Price Adjustment Thresholds

| Statewide Subscription Rate % | Price Adjustment    |
|-------------------------------|---------------------|
| < 20%                         | Price Increases     |
| >= 20% and < 100%             | No Price Adjustment |
| >= 100%                       | Price Decreases     |

The Statewide Subscription Rate is defined as such to address situations where the Statewide Available Allocation for a Statewide Pricing Category is greater than the total capacity in the Statewide Pricing Queue for that Statewide Pricing Category, but there are enough projects in the queue to meet the market depth requirements. This could lead to situations where the Contract Price would not decrease (or potentially increase), even if all of the Projects in the Statewide

Pricing Queue accept the Contract Price. For example, assume a Period where the Statewide Available Allocation for Category 1 is 15 MW and there are a total of five eligible 2 MW Projects in the Statewide Pricing Queue for Category 1 from different Applicants. If all five of those Projects accept the Contract Price, there would be Statewide Subscription of 10 MW and a Statewide Available Allocation of 15 MW. Therefore, if the Statewide Subscription Rate price adjust threshold was based solely on Statewide Subscription divided by Statewide Allocation, the Contract Price would stay the same in the next Period, even though every Project in the Statewide Pricing Queue accepted the Contract Price. This is contrary to the intent of the price adjustment mechanism, which is to have the Contract Price decrease in the next Period when all of the market accepts the Contract Price. As such, the Statewide Subscription Rate price adjustment threshold is based on Statewide Subscription divided by the lesser of: (i) Statewide Allocation, or (ii) the total capacity in the Statewide Pricing Queue.

Examples of the how the Statewide Subscription Rate is calculated are included in Tables 3, 4, 5, and 6 below.

Table 3: Statewide Subscription Rate Examples for Category 1 (Where Total Capacity in Statewide Pricing Queue Exceeds Statewide Available Allocation)

|              | PG&E | SCE | SDG&E | Statewide | Impact                          |
|--------------|------|-----|-------|-----------|---------------------------------|
| Available    | 6    | 6   | 3     | 15        |                                 |
| Allocation   |      |     |       |           |                                 |
| (MW)         |      |     |       |           |                                 |
| Capacity in  | 10   | 8   | 5     | 23        |                                 |
| Statewide    |      |     |       |           |                                 |
| Pricing      |      |     |       |           |                                 |
| Queue        |      |     |       |           |                                 |
| (MW)*        |      |     |       |           |                                 |
| Subscription | 10   | 3   | 2     | 15        | 15 / 15 = 100%                  |
| Example 1    |      |     |       |           | Price decreases next Period     |
| (MW)         |      |     |       |           |                                 |
| Subscription | 5    | 3   | 0     | 8         | 8 / 15 = 53%                    |
| Example 2    |      |     |       |           | No price adjustment next Period |
| (MW)         |      |     |       |           |                                 |
| Subscription | 2    | 0   | 0     | 2         | 2 / 15 = 13%                    |
| Example 3    |      |     |       |           | Price increases next Period     |
| (MW)         |      |     |       |           |                                 |

<sup>\*</sup>Assumes there is sufficient market depth to trigger a price adjustment.

\_

<sup>&</sup>lt;sup>1</sup> Although unlikely, the above example could result in a price increase by changing the capacity of the five Projects to 500 kilowatts ("kW"). Under such a scenario, all of the Projects would be willing to accept the Contract Price, but the Contract Price would still increase in the next Period, creating an absurd pricing outcome.

Table 4: Statewide Subscription Rate Examples for Category 1 (Where Statewide Available Allocation Exceeds Total Capacity in Statewide Pricing Queue)

|                 | PG&E | SCE | SDG&E | Statewide | Impact                          |
|-----------------|------|-----|-------|-----------|---------------------------------|
| Available       | 6    | 6   | 3     | 15        |                                 |
| Allocation (MW) |      |     |       |           |                                 |
| Capacity in     | 4    | 5   | 1     | 10        |                                 |
| Statewide       |      |     |       |           |                                 |
| Pricing         |      |     |       |           |                                 |
| Queue           |      |     |       |           |                                 |
| (MW)*           |      |     |       |           |                                 |
| Subscription    | 4    | 5   | 1     | 10        | 10 / 10 = 100%                  |
| Example 1       |      |     |       |           | Price decreases next Period     |
| (MW)            |      |     |       |           |                                 |
| Subscription    | 4    | 4   | 0     | 8         | 8 / 10 = 80%                    |
| Example 2       |      |     |       |           | No price adjustment next Period |
| (MW)            |      |     |       |           |                                 |
| Subscription    | 1    | 0   | 0     | 1         | 1 / 10 = 10%                    |
| Example 3       |      |     |       |           | Price increases next Period     |
| (MW)            |      |     |       |           |                                 |

<sup>\*</sup>Assumes there is sufficient market depth to trigger a price adjustment.

Table 5: Statewide Subscription Rate Examples for Category 2 (Dairy) (Where Total Capacity in Statewide Pricing Queue Exceeds Statewide Available Allocation)

|                              | PG&E | SCE | Statewide | Impact                      |
|------------------------------|------|-----|-----------|-----------------------------|
| Available                    | 3    | 3   | 6         |                             |
| Allocation (MW) <sup>2</sup> |      |     |           |                             |
| Capacity in                  | 5    | 5   | 10        |                             |
| Statewide                    |      |     |           |                             |
| Pricing                      |      |     |           |                             |
| Queue<br>(MW)*               |      |     |           |                             |
| Subscription                 | 9    | 3   | 12        | 12 / 6 = 200%               |
| Example 1                    |      |     |           | Price decreases next Period |
| (MW)                         |      |     |           |                             |

<sup>&</sup>lt;sup>2</sup> As noted above, the Statewide Available Allocation for Category 2 (Dairy) and Category 2 (Other Agriculture) are each one-half of the IOUs' total cumulative Available Allocation for Category 2. In this example, the Statewide Available Allocation of 6 MW for Category 2 (Dairy) is one-half of PG&E's and SDG&E's total cumulative Available Allocation for Category 2 of 12 MW.

| Subscription<br>Example 2<br>(MW) | 3 | 2 | 5 | 5 / 6 = 83%<br>No price adjustment next Period |
|-----------------------------------|---|---|---|--|
| Subscription<br>Example 3<br>(MW) | 1 | 0 | 1 | 1 / 6 = 17%<br>Price increases next Period     |

<sup>\*</sup>Assumes there is sufficient market depth to trigger a price adjustment.

Table 6: Statewide Subscription Rate Examples for Category 2 (Dairy) (Where Statewide Available Allocation Exceeds Total Capacity in Statewide Pricing Queue)

|   | PG&E | SCE | Statewide | Impact   |
|---|------|-----|-----------|--|
| Available<br>Allocation<br>(MW)                       | 3    | 3   | 6         |  |
| Capacity in<br>Statewide<br>Pricing<br>Queue<br>(MW)* | 2    | 2   | 4         |  |
| Subscription<br>Example 1<br>(MW)                     | 2    | 2   | 4         | 4 / 4 = 100%<br>Price decreases next Period    |
| Subscription<br>Example 2<br>(MW)                     | 1    | 2   | 3         | 3 / 4 = 75%<br>No price adjustment next Period |
| Subscription<br>Example 3<br>(MW)                     | 0    | 0   | 0         | 0 / 4 = 0%<br>Price increases next Period      |

<sup>\*</sup>Assumes there is sufficient market depth to trigger a price adjustment.

#### C. Price Adjustment Increments

The initial Contract Price for each Statewide Pricing Category in Period 1 will equal \$127.72/MWh, pre-time-of-delivery adjusted. Subject to the rules discussed herein, the Contract Price for each Statewide Pricing Category adjusts independently in each subsequent Period. The price adjustment increments are \$4/MWh, then \$8/MWh, then \$12/MWh, with a cap of \$12/MWh, in an uninterrupted series of increases or decreases. Increases or decreases after a Period in which the Contract Price was unchanged will reset and begin at \$4/MWh. For more information on the mechanics of the price adjustment, refer to Section H.4 of the BioMAT Tariff.

#### **D. Price Calculation Process**

- Step 1: As with ReMAT, each IOU maintains a record of Applicant/Project information from its respective queues, along with subscription activity for each Period via online platforms established by the IOUs for the BioMAT program.
- Step 2: Five business days after the close of each Period's Contract Price acceptance period, reports with information on Applicants and Applicant Affiliates, Project/Seller ownership, and Contract Price acceptance will be shared among the IOUs in order to determine market depth, Statewide Subscription, and Statewide Subscription Rate for each Statewide Pricing Category as described above.
- Step 3: Each IOU will independently calculate the next Period's Contract Prices based on this shared information.
- Step 4: No later than the fifth business day of month two of the Period, BioMAT Contract Prices, along with determinations of market depth, Statewide Subscription, and Statewide Subscription Rate for each Statewide Pricing Category, will be shared among the IOUs to arrive at agreed upon statewide Contract Prices for each Statewide Pricing Category.
- Step 5: No later than the five business days before the following Period commences, the IOUs will post BioMAT Contract Prices for the next Period on their respective program websites and/or online platforms.