

BioMAT Overview

October 12, 2017





What are Feed-in Tariffs?

What?




- Mechanism whereby utilities offer long-term power purchase agreements (PPAs) for energy at rates set according to cost of generation (historically).
- PG&E's FITs, including BioMAT, provide 10, 15 or 20-year PPAs under fixed prices.

Why?

- Intended to spur investment in desired renewables, enabling low-risk financing and lower cost of capital.

BioMAT

- SB 1122 (2012) required the CPUC to allocate 250 MW of bioenergy procurement to the three investor-owned utilities (IOUs) with no allocation to other load serving entities.

Fuel Resource Category	All IOU	PG&E	SCE	SDG&E
 Category 1 Various municipal wastes.	110 MW	30.5	55.5	24.0
 Category 2 Dairy waste and other agricultural feedstocks (pricing may adjust separately between subcategories).	90 MW	33.5	56.5	0.0
 Category 3 Sustainable forest management	50 MW	47.0	2.5	0.5



BioMAT Overview

Disclaimer: This is intended as a high level summary. PPA and Tariff rules govern.

- **Key Eligibility Requirements:**
 - Projects up to 3 MW. AB 1923 enables projects sized up to 5 MW if they deliver no more than 3 MW.
 - Must have a completed interconnection study.
 - Must have commenced operations after June 1, 2013.
 - Must utilize exclusively BioMAT eligible feedstock with 80% from the applicable Category (dairy subcategory must exclusively use dairy waste).
 - Full buy/sell or Excess sale.
- **Applications:** Applicants can apply at any time. The program is available for up to 5 years (February 2021).
- **Queue Management:** When applications (PPRs) are deemed complete, projects are provided a queue number. PPAs are awarded by price acceptance and queue position.
- **Auctions:** Bi-monthly Program Periods (“auctions”) - monthly if Category 3. The IOUs launched the first auction in February 2016 with a starting price of \$127.72/MWh.
- **Key PPA Obligations:**
 - Achieve Commercial Operation 32 months after Execution (exception for Category 3)
 - Post and maintain collateral of \$20,000/MW.
 - Compliance with CAISO Tariff if 500 kW or more.
 - Guaranteed Energy Production – 180% Contract Quantity over 2 years.
 - Forecasting obligations



BioMAT Pricing

- Pricing mechanism intended to find the market clearing price. Prices may adjust for each auction by \$4-\$12 according to price acceptance (“subscription”) and whether there are at least 3 (or 5) unaffiliated applicants in the queue (“market depth”).
- “Soft Cap”: Energy Division must investigate the program once prices exceed \$197/MWh for two consecutive auctions.

Statewide (all IOU) Subscription	Percentage	Price adjustment
$= \frac{\text{Total MW accepting price}}{\text{Lesser of total MW available or total MW in the queue}}$	< 20%	Increase: \$4, then \$8, then \$12 (adjustment cap)
	20 – 99%	No change
	≥ 100%	Decrease: \$4, then \$8, then \$12 (adjustment cap)

