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# Assembly California Legislature



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May 18, 2016

The Honorable Richard Bloom  
Chair, Assembly Budget Subcommittee 3  
California State Assembly  
State Capitol  
Sacramento, California 95814

**RE: Allocation of GGRF funds for biomass facilities**

Dear Assembly Member Bloom,

The undersigned members of the California State Legislature write to request \$130 million from the Green House Gas Reduction Fund (GGRF) be allocated to support a program that buys down the non-energy costs of bio-mass facilities. This program and the associated funds would stabilize California's critical bio-mass infrastructure and ensure the state retain the facilities necessary to manage its tree mortality crisis and meet its long term clean energy goals.

Biomass facilities generate renewable power while providing the best, most environmentally beneficial end use for forest, urban, and agricultural wood waste. This end use also serves to improve air quality, reduce the amount of organic materials going to landfills, and to aid forest management. Unfortunately, many biomass facilities in the state have been shut down due to market conditions, leading to the loss of the outlined benefits and impacting regional economies. These shutdowns are occurring just as the state faces a massive tree mortality crisis brought about by the drought and the resultant bark beetle infestation. As the Governor outlined in his Emergency Proclamation, existing biomass plants are needed to help address this new threat.

The administration, members of the legislature, and the biomass industry have been exploring a number of concepts to preserve the critical role biomass plays in addressing tree mortality, preventing wildfires, improving air quality and reducing organic materials flooding California's landfills. This collaborative effort has resulted in a plan supported by the biomass industry. The plan relies on two key elements:

- **A GGRF-funded program** that utilizes \$130 million per year to pay for the environmental co-benefits of biomass, beyond renewable energy, that help keep the state's plants operational. GGRF funds are appropriate because biomass plants have made, and continue to make, significant contributions to the state's air quality.
- **New power purchase agreements (PPAs)** between the Investor Owned Utilities (IOUs) and the approximately 420 MW of biomass facilities, at fair electricity prices (renewable energy value at the market rate of \$84.22/MWh or 8.4 cents kWh)<sup>1</sup>

Note: if the IOUs **do not sign** new PPAs, it will cost the GGRG more than \$200million to preserve this vital resource.

This GGRF program buys down the non-energy cost of biomass contracts between the Investor Owned Utilities (IOUs) and the biomass facilities that currently have contracts of less than five years in remaining life. These contracts total approximately 420 MW of installed capacity and would not be applied to new units. GGRF allocations to offset the value of the emissions benefits will be based on the type of biomass fuel.<sup>2</sup>

- Benefits from in-forest biomass use at a price of \$53.70/BDT, estimated to be a total of \$59 million annually
- Benefits from agricultural biomass use at a price of \$38.55/BDT, estimated to be a total of \$38 million annually
- Benefits from urban diversion biomass use at a price of \$28.13/BDT, estimated to be a total of \$33 million

The total amount of these funds, \$130 million annually, will be collected by an appropriate state agency, which will administer the distribution to existing biomass generators. Biomass generators will be required to submit monthly data on fuel consumption by type, and it is expected that the percentage of forest fuels versus other fuel types will increase over time. The agency will verify data and disburse funds monthly to biomass generators based on the consumption data, which is subject to audit by the CEC. Disbursements to any biomass facility, in combination with the PPA price, will be subject to a total cap of \$120/MWh initially, and escalate at 2% annually.

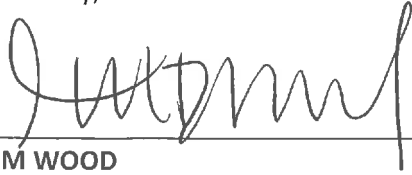
Current market conditions are threatening to end the biomass industry in California. It is clear that the state cannot afford to lose this important infrastructure. This proposal is the product of a collaborative process and we believe represents a reasonable and sustainable approach to ensure California's biomass infrastructure remains available to help manage the state's tree mortality crisis and achieve our long term clean energy goals. For these reasons we respectfully ask for your support of this request for a \$130 million allocation from the Green House Gas Reduction Fund to support the proposed program. Thank you for your consideration of this critical issue.

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<sup>1</sup> See References, "Quantification of Power Sales Benefit"

<sup>2</sup> See References, "Quantification of Emissions Reduction Benefits"

Sincerely,



**JIM WOOD**

Assemblymember, 2<sup>nd</sup> District



**BILL DODD**

Assemblymember, 4<sup>th</sup> District



**SUSAN EGGMAN**

Assemblymember, 13<sup>th</sup> District



**ADAM GRAY**

Assemblymember, 21<sup>st</sup> District



**RICH GORDON**

Assemblymember, 24<sup>th</sup> District



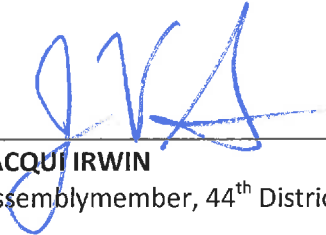
**KANSEN CHU**

Assemblymember, 25<sup>th</sup> District



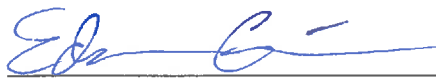
**RUDY SALAS**

Assemblymember, 32<sup>nd</sup> District



**JACQUI IRWIN**

Assemblymember, 44<sup>th</sup> District



**EDUARDO GARCIA**

Assemblymember, 56<sup>th</sup> District

cc: Honorable Anthony Rendon, Speaker  
Honorable Phil Ting, Budget Chair  
Gabrielle Meindl, Consultant  
Christian Griffith, Consultant

## References

### 1. Quantification of Power Sales Benefit

Biomass power has numerous benefits to utilities and their ratepayers, not all of which are captured in the current PPAs or in market pricing. The value of the biomass power, utilizing market pricing is \$84.22/MWh and is outlined in more detail below.

- Energy prices for intermittent renewable facilities such as solar are approximately of \$60.00 per megawatt-hour ("MWh)
- A capacity price of \$19.22/MWh reflects the current published as-delivered capacity values in Northern California through 2019 and CAISO estimates of new capacity costs in 2020 and beyond (timed to be consistent with the CAISO estimate for forecasted capacity shortages within California)
- A Transmission component of \$5.00/MWh to capture the benefits to the utilities of (i) avoiding transmission and distribution line maintenance and repair associated with wildfire damage and (ii) the local (reliability) transmission support value associated with biomass generation located in often remote areas

Although we have not quantified the load balancing value of biomass energy, biomass is both a baseload renewable, and a great many biomass facilities also meet California Independent System Operator (CAISO) ramping requirements to serve as flexible capacity. Biomass provides significant value to the grid as facilities are located throughout the state and the combination of local reliability, flexible capacity and baseload operational support contribute to the responsive, reliable grid the state requires for its clean energy future. Just as biomass is the best environmental end use of forest waste to respond to the Emergency Proclamation and long term needs, so too is it a key component of adapting the grid to a 50+ percent renewables portfolio. These benefits are above and beyond the power sales benefit represented herein.

### 2. Quantification of Emissions Reduction Benefits

In order to quantify the biomass funding amounts, this proposal calculates the benefits to air quality by calculating the avoidance of various pollutants and greenhouse gases. The values included are calculated by using source specific methods for each fuel source.

- In-forest biomass (\$53.70 per bone-dry ton or "BDT"): Quantifies the emissions benefit of avoiding open of excess forest material
- Agricultural biomass (\$38.55/BDT): Quantifies the emissions benefit of avoiding open burning of agricultural residuals
- Urban biomass (\$28.13/BDT): This value represents 50% of the median California landfill tipping fee, which equates to the emissions benefit of avoiding decomposition of just 15% of this material into methane (a potent greenhouse gas)

Emissions benefits are then translated into dollar values using current market rates for pollutants. Recent carbon auction prices were used for greenhouse gases and other pollutant values (nitrous oxides, carbon monoxide, particulate matter, etc.) were based upon recent transactions prices in California's Emission Reduction Offset markets.

It should be noted that these methodologies **do not** take into account the non-energy benefits of biomass, such as health benefits, wildfire prevention, state landfill diversion goals, watershed benefits, and local economic benefits.