

Legislative & Policy Directives to Promote Biomass Power in a Time of Cheap Natural Gas



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TSS Consultants

- TSS established in 1986 – principal focus was bioenergy
- Continue to assist project developers, government agencies, and tribal entities with bioenergy development and projects – biopower, biogas, biofuels, and bioproducts
- “All Things Biomass”



Why Biomass Power?

- Biomass power has societal and environmental values that are difficult to monetize
- Biomass power creates long-term jobs
- Biomass power can help solve waste issues
- How can California, and other states, promote and develop their indigenous biomass resources

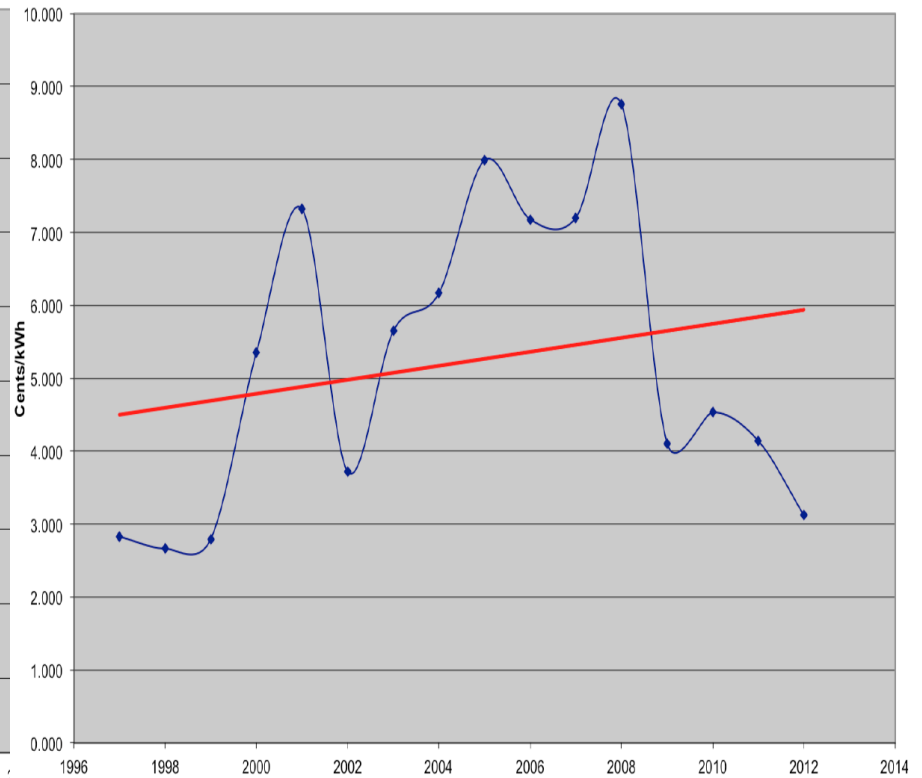
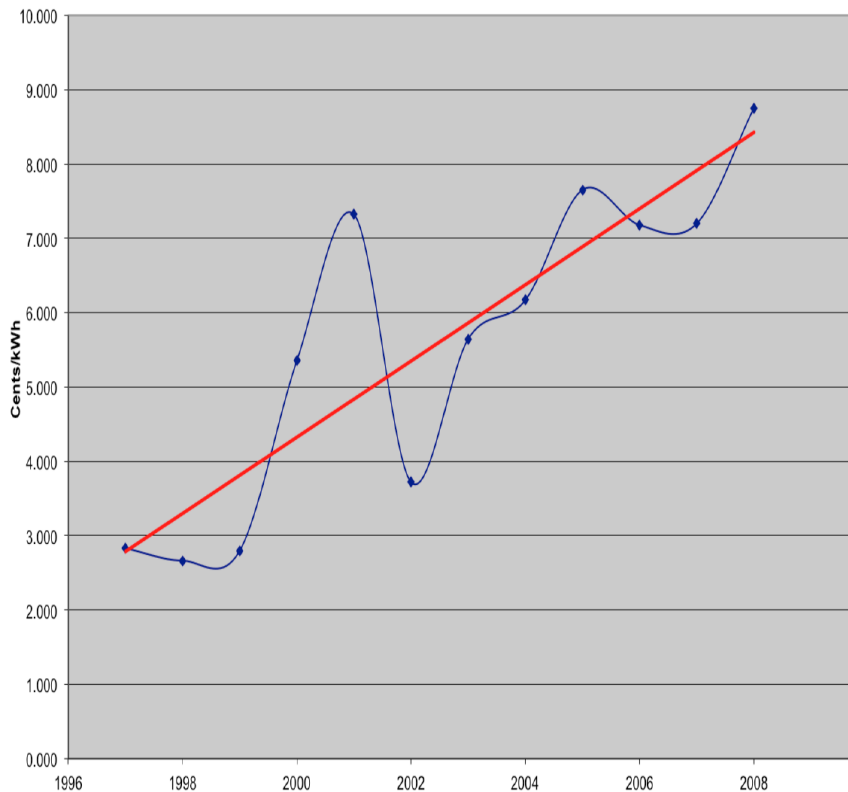
The New Era of Cheap Natural Gas



PG&E Avoided Cost

■ 1997 to 2008

■ 1997 to 2012



CA Legislation & Policy Directives

- CA Bioenergy Action Plan
- Senate Bill 1122 (2012)
- Electricity Program Investment Charge (EPIC)
- Assembly Bills 1900 & 2196 (2012)
- SB 1x 2 (2012)
- AB 32 (2006)

CA Bioenergy Action Plan

- The *2012 Bioenergy Action Plan* is a coordinated California state agency approach to addressing challenges and maximizing opportunities for the development of bioenergy projects that promote economic development and provide the greatest environmental benefit
- The plan outlines California state agency actions that:
 - 1) Stimulate cost-effective utilization of the California's diverse biomass resources for conversion to "low-carbon" biofuels, biogas, and renewable electricity;
 - 2) Increase research, development and demonstration of bioenergy toward commercializing new technologies;
 - 3) Streamline the regulatory and permitting processes; and
 - 4) Quantify and monetize the benefits of bioenergy.

SB 1122

- Enacted in 2012
- Requires 250 megawatts of biomass power procurement:
 - 110 megawatts from wastewater treatment, organic waste diversion, food processing, and codigestion
 - 90 megawatts from dairies and agricultural waste
 - 50 megawatts from sustainable forest-sourced biomass
- Rules being developed at CPUC under the Renewable Market Adjusting Tariff (Re-MAT) proceeding

Electric Program Investment Charge (EPIC)



- \$162 million / year to promote clean energy
- Mostly administered by CEC with utilities administering the rest
- \$55 million/year for applied R&D
- \$45 million/year for technology demonstration and deployment, of which **at least 20%** must be spent on biomass power
- \$15 million/year for market facilitation

AB 1900

- Current CA law has prohibition on vinyl chloride in pipeline biogas (primarily from landfill gas)
- CPUC required to set new pipeline biogas standards for pipeline safety and public health
- CPUC must also set monitoring, testing and reporting requirements
- OEHHA and DTSC will develop contaminant list and establish safe levels to protect public health – currently underway

AB 2196

- Clarifies pipeline biogas eligibility under CA's Renewable Portfolio Standard (RPS)
- Applies to contracts executed after 3/29/12
- To be RPS eligible, biomethane must be:
 - 1) Used onsite or injected into dedicated pipeline;
 - 2) Injected into a pipeline that flows within CA or toward the eligible generating facility; or
 - 3) The seller or purchaser demonstrates at least one of three environmental benefits to CA

SB 1x2 - CA Renewable Energy Resources Act



- CA RPS raised to 33% (by 2020)
- Feed-in Tariff Program
- Grant funding to support the development of preliminary documentation required by funding agencies
- Long-term contracts for feedstock and electricity sales

AB 32 – CA Global Warming Solutions Act



- Enacted in 2006
- Requires return to 1990 GHG levels by 2020
- ARB adopted cap and trade program to increase compliance flexibility, reduce costs and further reduce GHG emissions
- The auction of allowances (2 auctions so far) has already produced more than \$200 million in auction proceeds
- Need to allocate some of the auction proceeds to biomass power, which is critical to reduce GHG's (related to waste diversion, methane capture, low carbon fuels, forest sequestration, etc.)

Path Forward

- California is developing a path forward for biomass power, which takes into account the economic, societal, and environmental benefits of bioenergy
- Other states can emulate California's legislative and policy directives to promote the use of their own biomass resources

Thank You

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