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11-6-1

KernTax
Facts Through Research

August 24, 2011

Mr. Kevin Kennedy
Office of Climate Change
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments to the proposed Cap and Trade regulations. Submitted at public hearing.

The Kern County Taxpayers Association is a member- supported, non- partisan, non-profit corporation, whose purpose is to bring about, through cooperative effort and communication, greater economy, efficiency, and effectiveness in government, basing its recommendations upon the analysis of facts obtained through research.

KernTax respectfully requests that CARB extend allowances to new cogeneration facilities meeting the efficiency criteria of AB1613. This will allow facilities to make substantial financial commitments to design and build new state-of-the-art electricity generation units with heat rates that are substantially lower than the current IOU-specific System Average Heat Rate for fossil-fired dispatch. IOUs are facing an uncertain paradigm shift in which they become the arbiter of heretofore non-existent policy whose outcomes are unknown. IOUs experienced a similar event in the recent past under the ill-conceived AB1890 (the electrical restructuring), which led to the unexpected consequences of bankruptcy and out-of-control rates. It is our concern that industrial energy consumers (providers of manufactured goods and consumable commodities to Californians) and IOUs (providers of electricity to Californians) should not be tasked with the herculean feat of finding fair and reasonable rates based on a false hope that economic uncertainty is not a resource barrier to private-sector financing and implementation of critical electrical system improvements that IOUs cannot achieve single-handedly.

The CARB staff has shown great wisdom in providing allowances to insulate residential electricity a service which is essential to economic stability but the same electricity service is known to be essential to health, safety and general welfare of all Californians.

> *"The initial allocation in 2012 was selected by multiplying the sector's emissions during 2008 (98.9 million metric tons of carbon dioxide equivalent (MMTCO2e)) by a reduction factor of 0.9 to get an initial sector allocation of 89 million. This estimate does not include the emissions from electricity produced at cogeneration facilities (11.1 MMTCO2e in 2008), a substantial portion of which is purchased by the distribution utilities.* ***Staff recognizes that the purchase of this electricity***

should be addressed similar to the purchase of electricity from other generators, and that allowances will be allocated to distribution utilities to reflect purchased cogeneration electricity. *Staff is continuing to evaluate the options for defining this portion of the allowance allocation to distribution utilities.*

The proposed decline of the allowance budget for distribution utilities is at a linear rate that would achieve a 15 percent decline by 2020...." ***(emph.)***

KernTax believes that the same need to guarantee health, safety and welfare exists at the industrial level, particularly where potential cogeneration can help provide lower priced goods to Californians. Our concern about the CARB proposal stems from the false assumption that the IOU only electricity-based allocation can be managed fairly and that the program can ensure sufficient access of allowances to new cogeneration power producers (cogens). The CARB allowance program will create fees paid to CARB by parties needing allowances; this will hold true for any secondary market seller of excess allowances (including the IOU's). KernTax treats fees as taxes. In this instance, CARB is choosing to grant preferential access to their energy-based tax stream (by giving away allowances), waive a newly conceived market-based tax requirement for one group (residential Ratepayers) and levy the same taxes on another group expecting the taxed system to achieve equilibrium through a previously independent regulatory conduit managed by the CPUC (commercial and industrial users)– meanwhile expecting industrial facilities to finance new construction of cogeneration projects in the face of withering economic in their proformas.

There are no financeable provisions in the allowance proposal to facilitate the construction of stabilizing high efficiency state-of-the-art cogens that can reduce system demand and provide taxes to local communities and needed generation reserves for CAISO; in fact a naive view is reflected in following quote which was taken from the staff's Appendix J, page J-32.

"i. ***Cap-and-Trade Creates an Incentive for Efficient Combined Heat and Power Systems***

Table J-7 ***(shows)*** *how the cap-and-trade system creates an incentive for the installation of efficient combined heat and power (CHP) systems. An industrial facility that installs a CHP unit to displace grid electricity will need to hold additional allowances to cover the added direct emissions from a CHP facility, which creates an additional direct cost.*

To the extent that the CHP unit produces heat more efficiently than a standard industrial boiler, the industrial facility will lower its compliance obligation related to heat consumed. Additionally, if electricity prices also accurately reflect the carbon price of the marginal generator, the facility accrues a greater carbon cost savings as a result of avoiding indirect carbon costs in purchased electricity. If the emission rate of the CHP unit is lower than the marginal generator serving the grid, the industrial facility's

compliance costs related to electricity consumption will also be lower than they otherwise would be if the facility relied only on purchased electricity. (ed.)

Table J-7: Method to Reduce Direct and Indirect Carbon Costs at Industrial Facilities

	Energy Self-Generated or Imported?		
Source of Direct or Indirect Carbon Costs		Produced On-site	Imported from Off-site
	Heat Consumed	Direct Allocation*	Direct Allocation*
	Electricity Consumed	Direct Allocation*	Compensation Through Distribution Utility†

*Include in emissions efficiency benchmarking exercise and final allocation.
†Consider in benchmarking work but remove from final direct allocation.

Because the compensation depends—in most cases—on production, an industrial facility with an efficient CHP system will have lower direct and indirect compliance costs but will receive the same compensation compared to a similar facility with no CHP unit."

This is a false premise that provides discriminatory favor to outdated utility sources of electricity in lieu of favoring new facilities that reduce demand and provide greater efficiency. From a strictly academic perspective this discriminatory position has some merit; however, the business reality (which must be considered by private sector industries in assessing the incentive for efficient combined heat and power systems built at their facility) is a landscape that has historically required treatment of the following factors:

1. Mitigation of financial institution concerns,
2. Mitigation of the facility owner's appetites for risk,
3. Capturing the approvals of shareholders seeking efficient investment frontiers,
4. Selecting best Net Present Worth alternatives,
5. Difficulty in contracting in the face of historically documented practices related to IOU utility rent seeking, and
6. Difficulty in contracting in the face of historically documented IOU aversion to ratebase erosion.

One need only look at California's current business trends to see the potential economic landmines of the proposed regulation. Industrial Demand for electricity has been steadily declining along with goods production and tax revenues.

The proposed CARB discriminatory allocation of GHG allowances to IOUs will deal a substantial blow to any hopes of **successful** design, permitting, construction and operation of new state-of-the-art cogeneration facilities preventing these facilities from helping the IOUs by offsetting the native loads for electricity and steam. This blow comes in the form of a ratemaking shift roughly equal to1¢/kWh, effectively increasing the overall industrial allocation of bundled EPMC by 3% without the benefit of regular CPUC proceedings. Intervener gaming of the industrial (as well as other non-residential) allocation parameters can easily shift the bundled industrial EPMC into skewed values as high as 6%; a useful resource for manipulating the commercial and industrial user's appetites for building new projects to reduce consumption of inefficiently generated electricity.

One need only look to the origins of the sea-change in public utility policy in the mid-1970s to recognize the need for reconsideration of the staff's discriminatory proposal. The Public Utility Regulatory Policies Act (PURPA) was devised by the Federal Government (and adopted in California) in response to a major "energy crisis" in the early 1970s. This period, when energy prices went out of control, revealed many energy policy flaws including an underlying flaw in prior utility policies that allowed inefficient utilities to preserve an outdated and inefficient system while maintaining captive customer base, all with guaranteed returns.

PURPA was passed in 1978 to promote greater use of domestic energy and improve historically poor conversion efficiencies. Electric utilities were required by law to buy power from other more efficient producers. FERC fostered **non-discriminatory access** to Electrical and Gas Interconnection and Fuel Contracts with UEG Transportation Gas for those facilities whose generation efficiency met their topping and bottoming Qualifying Facility criteria; projects which were financed at no risk to the ratepayers. Further, the native IOU was obligated to pay the new generators a reasonable prevailing capacity payment and energy payment based on the long run avoided cost and short run avoided cost, respectively. These costs were established by marking to an offsetting generation facility that was designed and financed by the IOU (were the capacity built by the IOU instead of the independent energy producer or facility). This led to the rapid modernization of the electrical generation system.

Now Californian taxpayers are being asked to turn back the clock on the California Electrical System to a pre-PURPA state of affairs and grant IOUs an access to a double-edged sword that is assumed to protect ratepayers from higher rates. But this new special IOU resource will only serve to usurp the beneficial relationship between industrial facilities and IOUs realized as a result of PURPA. Industrial facility managers are already suspicious concerning the new risk of availability of allowances (that would allow them to build the much needed highly efficient units with state-of-the-art equipment and cycles whose heat rates are substantially lower than the present System

Average Heat Rate). Additionally, these (now difficult to justify) new cogens would be equipped with current BACT for criteria pollutants if they could be funded and built.

The outcome of this discriminatory act will be an environment where the CAISO is forced by economic reality to dispatch outdated fossil-fired equipment to meet demand; the CPUC and IOUs are forced to seek fair balance in policy and ratemaking with one more wrinkle to an already dysfunctional process further convoluting the normal EPMC; leaving CARB to deal with self-induced otherwise avoided higher CO2 emissions.

Ignoring the risk multipliers and financial assurances (hedge costs) involved in borrowing millions of dollars in today's tight economy, a 20$/mt allowance cost applied to cogen proformas while the same allowance is freely given to the IOU simply adds roughly an additional 1¢/kWh spread to the cogen hurdle in the form of 1¢/kWh to the cogen's busbar O&M price and 1¢/kWh in the form of a free benefit presumably backed out of the equivalent tariff hurdle price offered by the native IOU or service provider for industrial service (bundled or unbundled) which a cogen proforma must beat (to even justify consideration by facility management). These discriminatory allowance benefits may be further skewed since the benefit must be allocated according to some negotiated form of Equal Percentage of Marginal Cost to all sectors which (history has shown) will be gamed against industrial loads by the intervening parties, bringing about numerous unexpected and undesired outcomes. See PG&E's historic tariff rates for 2009, 2010 and 2011 as well as the related CPUC General Rate Case A10-03-014 for examples of intervenor gaming and unexpected consequences.

The long-term implications will be that the cogens will not be built and the captive industrial facility loads will be forced to reduce demand (shed) during CAISO system emergencies when CAISO could have enjoyed a less loaded system where new cogens could have been called upon to provide needed in-state reserves. These paralleled units also could provide reinforcement in voltage and frequency stability at local sub-transmission levels.

Expecting the industrial facility to seek economic justification based an offsetting revenue stream from AB1613 based price structures is deceptive since the financing proformas require sufficient revenue from the excess energy above internal use in cogeneration cycles sold under the AB1613 pricing regime to compensate for the allowances demanded for the new cogeneration facility at whatever market costs are. However, the AB1613 efficiency criteria dictates that internal system energy balances must maintain close efficient relationships between electricity generated and steam utilized even at maximum output, therefore little excess energy will be delivered to offset the allowance costs in any financing proformas.

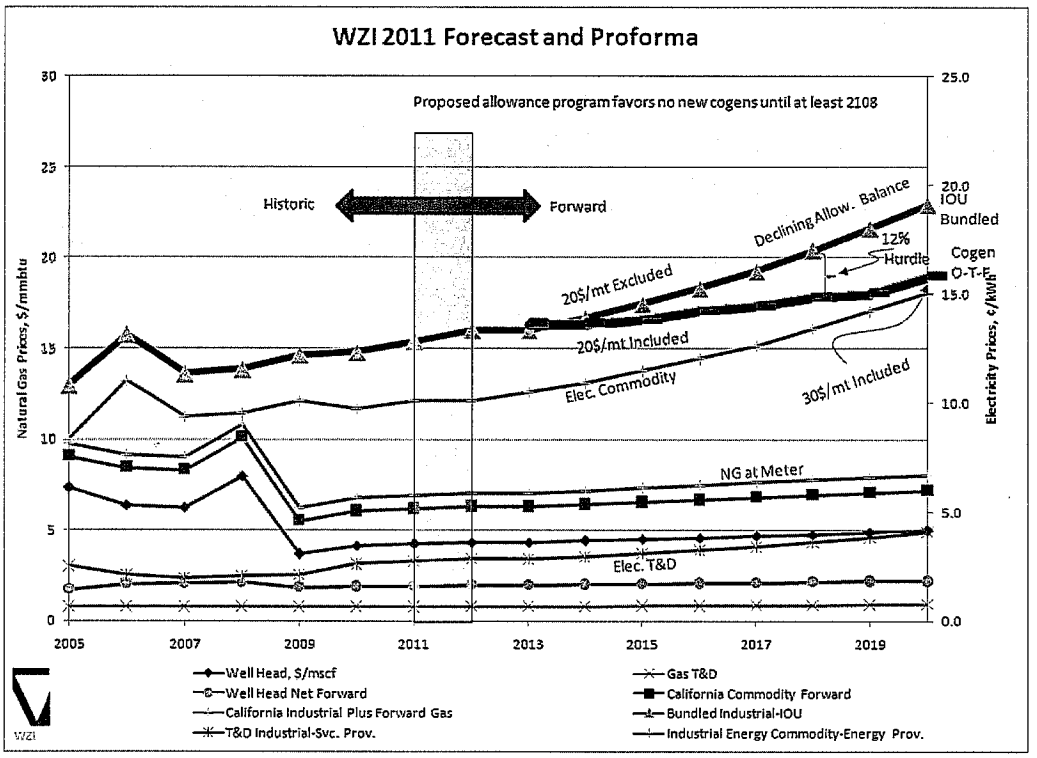
The problem is further exacerbated when contingencies for higher allowance costs are considered in conservative proformas.

"ARB will offer to sell the allowances in the reserve at fixed prices to

covered entities in three tiers. Initially, one-third of the reserve allowances will be available at $40/metric ton, one-third at $45/metric ton and one third at $50/metric ton. These prices would be increased annually at a rate of five percent plus inflation."

Each increment of $20/MT adds another 1¢/kWh to the cogen proformas' O&M; making financing of a new cogen ever less likely to occur.

The chart below shows the comparison of the typical IOU bundled industrial rate (including the declining balance of free allowances) and the related minimum dispatch price of a break even cogen (with 20$/mt allowances in the near term years escalating to 30$/mt by 2020). The chart shows a bias flowing against new cogen construction until 2018, at which time a reasonable 12% busbar hurdle rate may be achieved. The facility management approval as well as contracting, permitting and financing would be complete in 4Q 2016, construction would have to start in by 2Q 2017 to realize the 2018 startup.



The KernTax suggestion would only affect a percentage of facilities whose electrical load and steam demand meets the necessary efficiency criteria so this would not be a substantial modification in inventories, while the gains CAISO's system integrity would be tremendous.

In closing, CARB should consider extending a similar allowance policy to those industrial facilities whose new cogeneration facility meets the AB 1613 efficiency criteria provided the cogens agree to dispatch excess energy under a Paralleled Generator Agreement with CAISO during system emergencies.

Respectfully,

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