



## community environmental services

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February 14, 2008

Cynthia Marvin  
California Air Resources Board  
1001 "I" Street  
P.O. Box 2815  
Sacramento, CA 95812

Via E-mail

Dear Cynthia:

Again I'd like to compliment you and your staff for an outstanding effort in addressing the allocation of Prop. 1B bond funds. In reviewing the staff report on fund allocation, it was clear that a tremendous amount of thought, consideration and balancing went into the initial work product.

As you know, Vycon is a manufacturer of a CARB-verified flywheel-based energy storage system eligible for funding under Prop. 1B. Vycon's REGEN system not only reduces diesel PM, but unlike a number of other verified control technologies, reduces rather than increases NOx emissions. The REGEN system also reduces VOC emissions, greenhouse gases and fuel use.

Vycon continues to have some concerns, however, about the proposed requirements for energy storage system funding. Vycon believes that with an appropriate set of requirements matching those of the requirements of other funded categories, RTG cranes could be fully retrofitted throughout the state within 2.5 years, offering substantial emission reductions within the ports. Unfortunately, the current proposed requirements will provide little incentive for such a retrofit to occur.

Our concern is mainly with the proposed requirement that funded units already have installed either Tier 4 engines or Level 3 control devices. This requirement apparently was to ensure that the bond funds were used for early or excess emission reductions, a requirement for bond

funding. Current CARB regulations for port Cargo Handling Equipment (CHE) require essentially a Tier 4 engine or a Level 3 device, with final compliance by 2015.

However, the Tier 4/Level 3 requirement goes beyond that required in other categories, or even by CARB's CHE rule. It also makes it virtually impossible for bond funds to be used for early compliance, particularly since no Tier 4 engines presently exist and many Level 3 devices will not work on RTG cranes.

Below we detail Vycon's alternative proposal, as well as the problems with CARB proposed requirements and their chilling impact on early and excess emission reductions.

### Vycon Alternative

Vycon has proposed alternative requirements to replace the Tier 4/Level 3 that would not only meet state bond requirements, but would also provide an incentive to reduce emissions both early and in excess of CHE rule requirements. Vycon's proposal was also more stringent than that of other categories.

Vycon has proposed requiring that emission reductions associated with installing an energy storage system be excluded from a facility's CHE compliance demonstration. But that proposal was used to add to, rather than replace the original requirement. This has the effect of further chilling any incentive to use bond funding for early reductions.

### Tier 4/Level 3 Requirement Goes Beyond Eliminating Funding from Required Reductions, and Chills Early and Excess Emission Reductions

CARB's Tier 4/Level 3 requirement goes beyond that needed to ensure that bond funding not be used to meet existing requirements. The current CHE rule allows compliance either on a unit by unit basis, or through a plan designed to ensure equivalent emission reductions on an equivalent time frame. Yet the Tier 4/Level 3 requirement does not allow for that same flexibility, jeopardizing potential early emission reductions.

To give a simplified example, a facility operator with 20 units under the CHE rule may wish to meet a 2011 deadline for ten of his units by installing a Level 3 device, and be on a schedule to achieve compliance by repowering 8 units with an alternative fuel engine, and placing a Level 1 control device on the remaining 2 units. The operator may also wish to place energy storage devices on all 20 units in 2008 (each unit only takes half a day to a day to install) if given bond funding.

Under the proposed requirements, no bond funding would be available to this operator, and no energy storage devices would be installed. This is despite the fact that ALL of the emission reductions associated with the energy storage device would meet all the requirements laid out in the bond measure.

Under Vycon's alternative proposal, each of the units could be eligible to add energy storage devices since the operator will be complying with CARB's CHE rule without the use of the energy storage device. And since the operator need not come into final compliance with CARB's CHE rule until 2015, the energy storage devices will be providing up to 7 years of early *and* continuing excess emission reductions.

#### Energy Storage Devices Treated Differently Than Other Effective Controls, Including Trucks

In the above scenario, if these units just happened to be trucks, and not RTG cranes, the scenario for funding would be quite different. The energy storage devices would be eligible for funding, even if the emission reductions were to be used for partial compliance. That is, as drafted, the eligibility policy for trucks are vastly different, and are asked to meet a less rigorous standard for funding.

While the above example is only one of many possible, the overall effect of the Tier 4/level 3 requirement is that no operator that wishes to install energy storage devices now, is able to, particularly if they choose any one of a number of CHE rule alternative compliance methods. Further, while bond funding can help create incentives for early and excess emission reductions throughout the state by retrofitting hundreds of RTG cranes throughout the state within 2.5 years, very few will be retrofitted under 1B bond funding with CARB proposed requirements.

Vycon's proposal to CARB was designed to not only achieve emission reductions early and in excess of the CHE rule, but to provide operators with additional incentives to go even farther, by repowering and using the energy storage system to reduce emissions and fuel use further. Indeed, by repowering and using an energy storage system, operators can repower with a smaller genset, which reduces emissions, greenhouse gases and fuel use even more.

We recognize that this is not the best solution for every operator. But with bond incentives, operators can immediately put on an energy storage system, achieve benefits, and then decide on a smaller genset when it comes time to retrofit or repower to meet CHE requirements. As it stands now, they could only obtain bond funds if they did the two contemporaneously, a strong *disincentive* to maximizing potential emission reductions from the bond funds. This is clearly not intended, nor is it a requirement for other categories.

#### Additional Comments

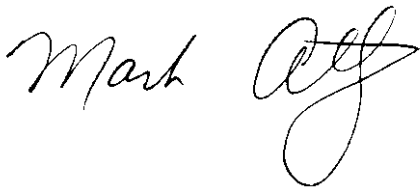
- Vycon urges CARB to fully take into consideration all emissions reduced from competing technologies, including greenhouse gas reductions. We note that some control technologies increase fuel use and greenhouse gases. This should be taken into account in determining which projects to fund.

- Vycon understand that CARB plans to consider electrification of RTG cranes for eligibility in the 1B bond program. Vycon has no problem with this. Vycon supports use of the cleanest technologies, and has product lines that can further reduce peak energy use. But as bond funds are competitive, CARB must ensure equal treatment of all technologies. CARB should consider the emissions associated production of the electricity at its source, including additional primary and secondary PM emissions from the use of ammonia in SCR devices commonly used, and the added mass emissions (including greenhouse gas emissions) coming from the many newly-proposed and inefficient peaker units. In addition, CARB should ensure that every crane that is now electrified must be in place for the entire 15 year timeframe that each other item in the same category is subject to.

Again, while we have some strong objections to the requirements in this category, we congratulate you and your staff on their fine work in developing the overall 1B program.

If you have any questions, please feel free to contact me at (714)970-SMOG [7664].

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Abramowitz". The signature is written in a cursive, flowing style with a large loop at the end of the last name.

Mark Abramowitz