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ORIGINAL
Copies:
Board Clerk
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Chair

Ms Mary Nichols
Chair, California Air Resources Board
1001 I Street
Sacramento CA 95812

Dear Ms. Nichols:

On Thursday, December 11, the California Air Resources Board will be considering the initial framework for AB 32, the Greenhouse Gas Emissions law signed by Governor Schwarzenegger last year.

There appear to be a number of things in AB 32 that will cost California companies without them getting any "return on investment," except for reduced greenhouse gas emissions. AB 32 seems to focus completely on electricity and the power plants that produce the electricity and vehicle emissions. I have been trying to get them to also look at natural gas and the emissions associated with natural gas. If they are trying to combat global warming then they should also consider the amount of heat that is being put into the atmosphere after the combustion of this natural gas.

California's industrial sector consumed over 6 billion therms of natural gas last year. I don't know if this includes the natural gas consumed by hospitals and schools and universities and prisons, hotels and other State and commercial buildings. California's food processing industry used over 590 million therms of this natural gas. Natural gas is considered the clean burning fuel, but over 20% of this natural gas that is being combusted is ending up in the atmosphere as HOT energy.

This does not have to be wasted this way. Most of the energy can be recovered from these exhaust gases with a technology called "condensing flue gas heat recovery". Natural gas is combusted to produce heat or steam or hot water. Natural gas appliances are not very efficient. Natural gas only a few short years ago was so cheap that our governments and industry did not even stop to think about this as waste. To spend money at being more efficient with their use of natural gas was not even considered here in North America.

In Europe, where energy was more expensive, they found ways to operate more efficiently. By applying this technology of condensing flue gas heat recovery, the recovered energy can be put back into the application it was first intended. It can be put into space heating or into water that needs to be heated or it can even be put into the school, university or hotels swimming pool. Instead of emitting exhaust temperatures at 300 or 600 degrees, the exhaust temperature can be less than 100 degrees. On some days it will be even cooler than the outside air.

When these exhaust gases are cooled to these temperatures, condensation is being created. Now let's even be more efficient. Let's collect this condensate and use it. It's free water. It can even be used to irrigate the lawns and the flower beds. How much more efficient can we be with our use of natural gas?

For every therm of energy recovered from these waste exhaust gases, 11.8 lbs of CO_2 is NOT being emitted into the atmosphere. Because we are recovering this energy and using it back in the application it was intended, the efficiency of the appliance has now gone from 70 or 80% to 90% or more, saving the facility money. It pays for itself, and then leaves the profits on the table for many years to come.

The State can say that it has legislated industry to reduce its NOx emissions, but this legislation does not come with a payback. It actually decreases the efficiency of the appliance. NOx amounts are reduced, but the other emissions are increased. How is this reducing greenhouse gas emissions?

Next week the Scoping Plan is being finalized. I hope that the CARB board is including natural gas energy efficiency as one of their methods to reduce greenhouse gas emissions. Your thoughts?

Sidel Systems (USA) Inc.
Sid Abma