

DOCKET

02-REN-1038

DATE

RECD. Apr 14 2011

Docket number: 02-REN-1038

Dear CEC staff,

I went through the staff presentation at the recent workshop. I have a background in urban and atmospheric fluid mechanics.

Designing small wind incentive programs is a great challenge because the resource varies dramatically. For example, the wind speed on the upwind roof edge of a building may be larger than over an open field at the same height, but downwind of the building it will be much smaller. There are computer models that can simulate the wind field around buildings, but running them for a whole year (as required) for typical meteorological conditions is not feasible. Consequently, anemometer data from the site (but only very close, i.e. a few feet, from the site of the wind turbine) is currently the only feasible and reliable method to obtain resource estimates.

As you noted, unless there is a performance-based incentive, there is a great potential for rebates to be wasted on systems in resource poor locations. For comparison, at \$3/Watt most building owners could install a solar system that would produce more energy than most small wind systems and come with longer warranties, so solar would be a better investment of state resources. So I would highly recommend a performance based incentive, even though it requires more resources for verification and processing.

Thanks for soliciting these suggestions.

Cheers

Jan

Jan Kleissl, Asst Professor

Dept of Mechanical & Aerospace Eng.

University of California, San Diego

9500 Gilman Dr. 0411

La Jolla, CA 92093-0411

off: 858-534-8087, cell: 443-527-2740

<http://maeresearch.ucsd.edu/kleissl>

<http://solar.ucsd.edu>, <http://cer.ucsd.edu>