

<b>DOCKET</b>	
<b>02-REN-1038</b>	
DATE	APR 18 2011
RECD.	APR 18 2011

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April 18, 2011

## Comments/Suggestions for Emerging Renewables Program for Small Wind Guidebook Changes

### Current Rebate Level:

I believe the current rebate level of \$3.00/watt for the first 10 kW then \$1.50/watt from 10 kW to 30 kW to be economically efficient. A smaller incentive would be too low, and a larger incentive is more than is necessary and could lead to some of the same problems as we have seen with the recent flood of applications for a turbine of dubious quality. A larger incentive might entice poor quality turbine manufacturers into the market to game the rebate system. I had a conversation with Mike Bergey (a manufacturer of a reliable small turbine) a couple months ago and he did not seem to want to see the rebate higher, probably for this reason.

### Interaction of Rebate Level with Federal Tax Credit:

The on-again, off-again federal tax credit (now in force) currently makes purchasing a turbine much cheaper. The CEC might want to consider lowering the rebate level when the tax credit is in place. An easier way to get to the same point might be to do what was suggested in the PowerPoint:

“A cap on the rebate based on a percentage of a systems’ total cost (i.e. \$3.00/watt or a percentage of the total system cost, whichever is lower)” and cap the total rebate to a percentage of total system cost. This might be administratively difficult, however.

### Performance Based vs. Capacity Based Incentive:

Capacity based might be okay, but I think this would be hard to administer. Also, it could discourage installations in areas with decent wind resources if the potential owner was worried, possibly without reason, about payback. I think all in all a capacity based incentive is preferable.

### Independently Verified Eligible Turbine List

I think this is a must. To allow turbine manufacturers to supply performance data is a low bar indeed, and will lead to problems of inflated performance claims and defective/nonperforming turbine installations receiving rebates, which is good for no one other than the manufacturers and installers. For example, the Mariah Windspire 1 kW turbine, several of which have received rebates under the ERP, did not even operate long enough to be evaluated at the NREL test site ([http://www.nrel.gov/wind/smallwind/pdfs/mariah\\_safety\\_function\\_test\\_report.pdf](http://www.nrel.gov/wind/smallwind/pdfs/mariah_safety_function_test_report.pdf)). Some type of independent verification of small wind turbine performance is urgently needed. The SWCC process could work, though it might take awhile to test many turbines. In the meantime, it might be a good idea to borrow another state’s list of eligible turbines, for example the State of Wisconsin’s. Mick Sagrillo, someone with years of experience working in small wind,

developed the list. I am pretty sure that he would craft eligibility requirements for the list that are fair.

### Demonstrable Wind Resources at the Site

I think this is another must. But instead of the customer providing computer modeled wind data, I think the CEC could delineate regions of the state with known high quality wind resources as automatically eligible for a rebate. Applicants from other areas would be required to provide at least six months of anemometer data to show their site had enough wind. Another alternative would be for the applicant to pay part of the cost of a wind resource assessment that would determine wind conditions. The state of Wisconsin has this requirement.

### Anemometer Installation Requirement

The state of Wisconsin requires a rebate recipient to install an anemometer along with the turbine and offers an additional \$1,000 in rebate if the applicant provides a year's worth of onsite data. This data will be invaluable as an actual measure of field performance and quality control check.

### Site Inspections

The CEC might want to consider instituting site inspections for new and existing turbine installations as a quality control measure. These inspections could help determine the amount of energy generated at the site, the durability of small wind installations, and how various turbines perform over time.

### ERP Program Goals

Revisit the goals of the Emerging Renewables Program to ensure they are still pertinent and consistent with current California Energy Commission policy objectives. The state of Wisconsin wind program goals are "adding renewable kWh on grid and creating jobs". Something to think about.

### Target MW Goal

Add to the ERP Guidelines a target amount of installed small wind capacity, e.g., 10 MW by 2015.