

Docket Optical System - Staff Workshop on Proposed Changes to the Emerging Renewables Program Guidebook

From: Alice <energyqueen@earthlink.net>
To: <docket@energy.state.ca.us>
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Good afternoon Commissioners and Staff,

I want to thank you for the opportunity to respond to the proposed changes to the Emerging Renewables program, with respect to wind energy generation.

As a homeowner in an urban area, who is keenly interested in significant energy reductions beyond what I am able to achieve through efficiency, I and my like-minded neighbors are very interested in purchasing clustered small wind systems.

By having several small wind energy units mounted on a roof in a dense urban environment, I can offset the electric energy consumption 24/7, something which is not possible with solar energy.

These small roof-mounted systems produce energy exactly where it is needed -- in the urban environment, not out in a field, miles away from the load. With urban wind energy systems, there are almost no transmission losses than with other remote installations. If you determine that the rebate should be based on output, kindly calculate in transmission losses from the units to the grid connection.

Roof-mounted small wind energy systems will conform to urban zoning requirements, where large tower-mounted systems will not. However, often several smaller units may be needed to meet the kW demand of the site, especially with multifamily and commercial buildings.

Roof-mounted small wind systems are more visible to birds, and do not have the problems with them that large tower-mounted systems have, making them less objectionable to environmental groups, such as the Audubon Society. The City of Berkeley has a small wind turbine that was approved by the Audubon Society in 2006, primarily because it is small.

Roof-mounted small wind turbines are quieter than large tower mounted systems, making them more appropriate for an urban environment, where neighbors may object to noise all night.

With respect to the wind resources, I am in the process of monitoring wind resources in Berkeley, which is directly in the path of the wind from the Golden Gate, as part of my work with the City of Berkeley. On one building, the winds were so high that they destroyed the first anemometer installed, so we have moved to a lower building, which also has another building directly in the path of the wind. Results from even this appear promising, two weeks into the installation, since these small, roof-mounted systems which only require 5-7 MPH windspeeds to generate energy. It is hoped that several smaller roof-mounted systems can offset Berkeley's municipal and commercial buildings, where solar is not possible. It is the only feasible renewable energy system for many sites.

With respect to the rebate structure: While it is clear that the intent of the rebate is not to fully subsidize the cost of wind energy systems, I don't fully understand why the \$3 per watt cap, which was used for solar energy, would be altered to a percentage of the project. This transfers the benefit to large-scale wind installations, which are able to produce more energy per installation, but not where the energy is actually needed--they are not held accountable for transmission losses. It benefits sites which can install remotely-located systems, and takes away the benefit of wind energy for thousands of urban building owners, who are struggling to meet AB32 goals, while reducing their own high peak energy costs.

Moreover, it creates an incentive for installers to raise the cost of the systems, if they can base their prices on percentages. I observed this happen within the solar industry -- years ago I obtained a quote for a solar electric system, and a few months later when the rebates became available, the installer (and others I had received quotes from) had raised their price by the exact amount of the rebate. As a result, I wasn't able to afford the system. It would be a shame to see this happen again with the wind energy market.

If a company can produce a product here in the United States, a marketing person can sell it, and a contractor can install it, and everyone can still make a profit without raising their prices to capture the rebate, shouldn't market forces determine which systems are installed? If something can be done more efficiently, using fewer resources, and produce energy where it is needed, shouldn't this be encouraged?

With regards to the hybrid approach for the rebate, based on the dollar/per/watt, and performance of the system: this would seem the most fair, since it would also provide data for future wind installations, especially if transmission losses were accurately accounted for.

Thank you again for your work in resolving this issue, so as not to penalize urban wind systems.

Sincerely,
Alice La Pierre
1900 Parker Street
Berkeley, CA 94704

CBPCA Professional
HERS Rater
Building Scientist