



Wind Harvest International

"Capturing New Markets for Wind Energy"

February 21, 2012

To Whom It May Concern:

WE have just completed the final report for a grant from the CEC's Energy Innovations Small Grants program entitled "Modeling Blade Pitch and Solidities in Straight Bladed VAWTs." We want to take this opportunity to tell you how valuable this grant has already been and to encourage that more funding be made available to small, renewable energy companies like ours.

Our vertical axis wind turbines were invented in California and have the potential to make a major impact on the future of renewable energy production in the state and the world. These turbines can be installed in the understories of existing wind farms and double or more the energy output of existing wind farms. In California, this would add 4000+ MW of wind emery on the same land, using the same roads and infrastructure. Our turbines can be used as capacity factor improvement projects on existing wind farms as well, making better use of the transmission system and increasing the reliability of a wind farm.

Although the primary purpose of the grant was to help us with the design for our larger model turbines targeted for the understories of commercial wind farms, the computer modeling that the CEC grant funded has proven to be instrumental to how we finalized the design for our soon to be produced and internationally certified Model 636G turbines, which we will be selling in states and countries with Feed In Tariffs for small turbines.

1. The modeling showed that we didn't need the external support columns, which allowed us to reduce the amount of steel in the turbine by almost 20%.
2. The modeling showed how much more effective a 3 bladed turbine would in comparison to the four blade turbines we have used in our prototypes. We now expect over a 30% increase in the turbines' ability to convert the energy in the wind into electrical energy.
3. Getting through the CEC's rigorous peer review process has set us up with a significant grant funding opportunity from SMART Scotland.

We do have one recommendation for how grants are provided in the future. Most U.S. grant funding opportunities require the potential grant recipient to meet the often narrow requirements and specifications of the grant guidelines. This eliminates a lot of excellent projects from going forward because the grant makers haven't even considered some of the good ideas that are out there. We suggest that grants be written like SMART Scotland

does. There isn't a specific timeline for the grant to be turned in. The potential grantee has to convince the grantor through an executive summary and an interview that the grant would be worth considering. The grant application has to come with an extensive and well-documented business plan.

We hope these comments are useful. The CEC EISG grant to Wind Harvest International will end up having helped bring a lot of jobs and renewable energy to the state.

Sincerely,

Kevin Wolf, Chief Operating Officer
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Cc: Senator Lois Wolk, Governor Jerry Brown, CEC Chair Robert B. Weisenmiller