

April 21, 2011

SOLAR - POINT

Mr. Robert B. Weisenmiller, Ph.D Chairman California Energy Commission Emerging Renewable Program Dockets Office, MS-4 1516 Ninth Street Sacramento, CA 95814-5512

Re: Docket No. 02-REN-1038

### Dear Chairman Weisenmiller:

I am writing to the California Energy Commission ("CEC") on behalf of Solar Point Resources, Inc. We are an authorized distributor of a small wind turbine manufactured by Dyocore, Inc. Our distribution territory includes Alameda, San Joaquin, San Benito, Monterey, Santa Clara, and Santa Cruz counties. Our company markets, sells, and installs a small wind system which includes small wind turbines as well as inverters and other associated components of the complete system installation. Our company deals directly with the small wind customer and as such we have extensive knowledge as to what has led to the recent and dramatic rise in demand for small wind systems. We feel the knowledge we have gained from our customers can be extremely beneficial to the deliberations of the CEC as they move forward with any revisions to the current edition of the Emerging Renewables Program ("ERP") Guidebook. We are responding herein to the CEC's solicitation for written comment to the possible changes to the ERP Guidebook as presented at the CEC workshop held on April 14, 2011.

The purpose of this letter is to provide our feedback to the CEC with respect to any possible changes to the ERP, provide recommendations based upon our knowledge of the market across the 6 counties in which we operate, and to extend an offer to work closely with the CEC and other key stakeholders to ensure the ERP for small wind systems is as successful as possible.

## History of the CEC's Renewable Energy Program

Before we provide our comments with respect to any proposed revisions to the ERP we believe it is important to first review and understand the history of the ERP. Without going into extensive detail we offer the following:

**In 1996**, AB1890 establishes requirement to collect \$540 million from the 3 major investor-owned utility companies.

**In 1997**, SB90 implements the provisions of AB1890 by creating the Renewable Resource Trust Fund as a depository for AB1890 fund collection.

**In 2000**, AB995 and SB1194 mandate that all 3 major investor-owned utility companies collect \$135 million annually for 10 years to support the Renewable Energy Program ("REP").

**In 2007**, Effective January 1, 2007, only two technologies are eligible for ERP funding including small wind systems under 50 kilowatts and fuel cells using a renewable fuel.

**In 2008**, SB1036 changed funding allocations for the REP and allocated over \$227 million of existing funds to the ERP to fund small wind and fuel cell technology. Furthermore, the allocation was changed so that 79% of future REP funding was directed to the ERP to fund small wind and fuel cell technology.

In review of the history of the REP, it is clear that the intent and the actions of the legislators was to provide hundreds of millions of dollars to support the development of small wind and fuel cell markets. However, despite the hundreds of millions of dollars collected from California ratepayers and contributed to the REP, insignificant amounts of wind system installations (577) have been funded by the CEC since the inception of the REP over 12 years ago. In fact, according to the Renewable Energy Program 2010 Annual Report to the Legislature, " Since the inception of the Energy Commission's Emerging Renewables Program in 1998, California has seen significant fluctuation in the number of small wind systems installed annually, including a steady decline in rebate applications since 2006. The annual report further states that during fiscal year 2009-2010, "Approximately 53 reservation requests for small wind systems were received ... " The Annual report acknowledges that future changes and improvements are needed to the program and it refers to Consumer Education and AB 45, which requires California counties to adopt ordinances governing the installation of small wind turbines by January 1, 2011. However, none of the aforesaid has had any measurable impact on the small wind market. In fact, based upon the amount of monies contributed to the ERP over the last 12 years compared to the amount of new wind systems installed, the program can only be categorized as having an insignificant effect on the generation of energy from small wind applications.

# **Recent Activity in CEC Reservation Applications**

Historically, given the limited number of small wind reservations to date, it has been astonishing to see an over 100% increase in the number of small wind reservation requests in the last three months compared to the last twelve years. The introduction to the market of new small wind technology in combination with the financial incentives provided by the ERP are the major contributors to the dramatic rise in the number of small wind reservations the CEC has recently received.

The manufacturer associated with the recent dramatic rise in small wind system reservation applications is Dyocore, Inc. ("Dyocore"). Dyocore has developed a small wind turbine that is low in cost, simple to deploy, and easy to maintain. Dyocore is addressing a market segment that until this moment in time has been completely ignored by the past manufacturers of wind systems. Dyocore has developed a product that utilizes unique technology to create useful energy in what was once considered unobtainable energy conditions thus taking the first step in making wind power practical and obtainable for the vast majority of ratepayers who have contributed to the ERP. Until recently the homeowners and small business owners throughout California who have directly funded the ERP through utility charges have not had the opportunity to participate in the ERP in any meaningful way. In the past, the ERP incentive program only benefited a very few, estimated at less than 2% of those who contributed to the ERP.

The wind industry is in its infancy with respect to the development of wind applications suitable for residential and small business owners. The purpose of the ERP as described in the ERP Guidebook is to, "develop a self-sustaining market for renewable energy systems that supply on-site electricity need <u>across California</u>". Dyocore is the only manufacturer that we are aware of that is attempting to address the stated purpose of the ERP by developing small wind product available to <u>all</u> Californians. It is because the product developed by Dyocore is universally available to the vast majority of ratepayers that it has been so successful. However, the success of Dyocore would not have happened without the financial assistance provided by the ERP. Unfortunately, the deployment of new technology is burdened by high

cost and the unknowns as they relate to performance, durability, etc. In order for new technology to proliferate and at the rate dictated by the recent enactment of the RPS mandates, the technology needs financial assistance.

The stated goal of the ERP is, "to reduce the net cost of on-site renewable energy systems to end-use consumers, and thereby stimulate demand and increased sales of such systems". Until recently, the demand and sales of small wind systems has been insignificant. With the introduction of new technology at lower cost the goal of the ERP is now being met for the first time in 12 years. The confluence of new technology and financial incentives has led to the first opportunity in ERP history to stimulate widespread market acceptance of small wind systems.

## Suspension of the ERP

The CEC elected on March 4, 2011 to temporarily suspend the ERP. The primary reasons for the suspension:

- Rebate reservations requesting incentives close to or equal to the total installed cost of the system.
- A decreased incentive to put small wind turbines in resource rich locations due to the lack of customer investment

The CEC held a workshop open to the public on April 14, 2011. The workshop identified the above as the primary reasons for the suspension. In addition, the workshop had the two issues divided into specific topics addressed as the <u>Incentive Structure</u> and <u>Wind Resource Analysis</u>. A third topic was addressed as <u>Eligible Equipment Listing</u>. The discussion relating to eligible equipment listing dealt with the two ways in which the ERP allows small wind manufacturers to receive listing on the CEC eligible list of equipment. We believe that the manufacturers are better equipped to address the eligible equipment listing issues. However, we strongly urge the CEC to not impose any certification process that further delays our ability to continue with marketing, selling, and installing the equipment that is already approved for funding by the CEC. Any further delays will dramatically affect our ability to financially sustain our operations. In addition, the CEC should be very cognizant about any certification process that could be challenged as impartial especially given the exhibition of derogatory comments by certain manufacturers against other manufacturers.

We address the first two CEC workshop topics in the following discussion:

# **Incentive Structure**

With respect to the Incentive Structure, the CEC workshop identified the following points:

- 1. "The goal of the ERP is to reduce the net cost of the on-site renewable energy systems"
- 2. "The ERP is not intended to fully eliminate a consumer's economic interest by covering the entire cost of a system" With a system's cost completely covered by the rebate, the consumer may have no interest in verifying that the installation site has adequate wind resources to accommodate the wind energy system and generate enough electricity to offset the consumer's electrical load"
- 3. "How can the ERP continue to promote small wind without providing incentives that cover the entire cost of the system?"

Our comments with respect to the above referenced points are as follows:

With respect to the first point, the statement is an excerpt from the ERP Guidebook from Section I.A. It is unfortunate that the entire statement was not presented for discussion, because the extracted portion

establishes a premise reinforced by the next two points that the ERP never intended to fully cover the cost of wind turbine systems. If you read in entirety Section I.A., you will find that the purpose and the goal of the ERP are much broader than the excerpt. The purpose of the ERP as stated in the first two paragraphs of Sec I.A. is as follows:

"The ERP was created to help develop a self-sustaining market for renewable energy systems that supply on-site electricity needs across California. Through this program, the Energy Commission provides funding to offset the cost of purchasing and installing new renewable energy systems using emerging renewable technologies.

The goal of the ERP is to reduce the net cost of on-site renewable energy systems to end-use consumers, and thereby stimulate demand and increased sales of such systems. Increased sales are expected to encourage manufacturers, sellers, and installers to expand operations, improve distribution, and reduce system costs."

The purpose and goal of the ERP is to develop self sustaining markets for renewable energy systems that supply on-site electricity needs across California. The goal is to stimulate demand and increase sales of such systems. We believe the understanding of the purpose and goals of the ERP are critical to further discussions relative to revising the ERP guidelines. Until recently, the program has not successfully achieved its purpose or goals with respect to small wind systems. The recent development of a low cost small wind turbine in conjunction with the ERP incentives has had a dramatic effect on the demand for small wind systems. Furthermore, the CEC guidelines do provide in Sec III.A., "Under no circumstance will the incentive from the ERP exceed the net purchase price of the system to the final customer (before ERP incentives)". This section specifically states the intention to reimburse up to the full cost of the system.

With respect to the second point raised in the Incentive Structure discussion above, 100% cost recovery of the installation by the ERP does not eliminate a consumer's economic interest. Our customers are obligated to provide us with an initial deposit of \$1,500 at the time we receive a CEC reservation for their system. We believe our deposit structure is sufficient to verify earnest intent on the part of our customers to be dedicated to the program. Once the installation is complete, operational, and the rebate has been received from the CEC, we provide for a complete refund of the deposit. This process can take several months to complete and the customer has to be willing to share in the upfront burden of installing our small wind system. In addition, the equipment is permitted and the cost of the installation is reported to the County Assessor who adds the value to the customer's property tax bill. Additionally, our customers are obligated to insure the installation in order to be eligible for interconnection by the utilities. Deposits, additional property tax payments, and additional insurance costs all contribute to the economic interest of the consumer. All of the aforementioned costs are significant to our customers but have not been a deterrent to selling our small wind systems. However, additional upfront costs will have a detrimental impact on our ability to sell our product. Revisions to the ERP that propose a cap on the rebate based on a percentage of a systems cost will completely ruin our ability to gain market penetration for small wind systems. The proof that an incentive cap does not work has already been demonstrated by the larger wind turbines lack of product acceptance over the last 12 years. Why would the CEC propose to proceed with the same flawed approach and apply it to the new small wind technology that has had so much recent success?

With respect to the idea of a performance based incentive, it would be impossible for us to finance our company operations based upon performance criteria. Our objection to this type of incentive program is based upon the fact that it would be impossible to finance our operations if we had to convince a investor or bank that their return on equity or repayment of debt was dependent upon a future occurrence relative to the amount of wind in a specific area. Additionally, the time to receive payment would have a negative effect on investment returns. Our ability to obtain our lines of credit which allow us to market, sell, purchase, and install our equipment prior to receiving a rebate from the CEC is totally dependent upon the financial institutions belief that the CEC will honor its reservations. Financial institutions and investors

have been dramatically impacted by the financial crisis. These institutions are not prepared to take on additional risk that their investment will be repaid based upon a performance criteria subject to the unknowns of wind.

Although we do not think it is necessary, if the CEC remains unconvinced that the above stated costs represent significant investment on the part of our customers then we suggest another approach which may further address the concerns raised by the CEC. In our review of the ERP Guidebook we found a reference in Appendix 5.D. to leased systems. We believe that a leased system would be acceptable to our consumers if the lease is structured in such a way that the payments are minimal. The energy savings produced by the small wind system must be able to offset any lease payment and cover the other consumer costs previously mentioned. Monthly lease payments in addition to the consumer costs should alleviate the concern raised by the CEC as to a consumer's economic interest in the acquisition of the system. The implementation of a lease program would qualify the acquisition for complete coverage of the installation costs by the CEC. In addition, we believe that the term of the lease should be a minimum of 5 years to coincide with the 5 year warranty requirement so as to avoid future issues related to the responsibility of maintenance after the 5 year warranty period has expired.

With respect to the third point of the Incentive Structure, we believe for all the reasons previously stated that there are more costs to the consumer than just the cost of the original installation. In addition, we strongly believe that any revision to covering the cost of the installation at this point in time will be detrimental to the proliferation of small wind systems. Until the small wind systems can gain widespread market acceptance by reduction in costs and enhanced performance the need for ERP incentives will continue. More research is needed to further develop product efficiencies in lower wind conditions. We cannot afford to return to the unsuccessful application of the ERP as it relates to small wind systems or we risk losing the moment and market penetration established by recent activities.

### Wind Resource Analysis

With respect to the Wind Resource Analysis, the CEC workshop identified the following points:

- 1. "Currently the ERP rebate is based solely upon the capacity of the system"
- 2. "Should the rebate be based upon an expected performance calculation or should the ERP require applicants to demonstrate the wind resource available at the proposed installation site?"
- This can help ensure that ERP funds are being used to promote systems installed at resourcerich locations and provide some measure of customer protection, but can cause increased costs and delays"

Our comments with respect to the above referenced points are as follows:

The concern over wind resource analysis appears to have arisen from the second point in the Investment Structure discussion as stated above, "With a system's cost completely covered by the rebate, the consumer may have no interest in verifying that the installation site has adequate wind resources to accommodate the wind energy system and generate enough electricity to offset the consumer's electrical load". We believe our comments above which address the Investment Structure also pertain to the CEC concerns raised relative to Wind Resource Analysis. As described above, our customers have a vested economic interest with our deposit structure, increased property tax assessments, and insurance costs in the acquisition of their small wind systems and as such they are completely motivated to see their equipment deliver electrical energy to offset their costs. In addition, it is very important to once again understand the motivation behind our customers acquisition of their small wind systems. Most of our customers have never had the opportunity to participate in the program they have funded. They are living and working in areas that are experiencing severe economic hardship and high unemployment. Our customers are farmers, government employees, small business owners, residents, retirees, and government institutions such as schools. Many of our customers are living on a fixed income and are

dramatically impacted by rising utility costs. Even small amounts of wind energy that can offset their utility costs is significant to our customers. Addressing the economic condition that many of our customers are facing is one of the main contributing factors to the success of the Dyocore product. Dyocore has delivered a product that has the technical capability of creating useful energy in areas that were once considered to have unobtainable energy conditions.

The term "resource-rich locations" lacks proper definition. Wind exists in every location at some point in time. We acknowledge that some areas, particularly in the desert areas, there exists more wind than in other parts of the state. However, if wind applications are limited to those areas than the vast majority of ratepayers who have contributed to the ERP are disenfranchised. The Dyocore product is targeted to those living and working in lower wind conditions and it is intended to make wind power available to the majority of ratepayers as opposed to the limited expensive technology now only available to the very few.

We suggest that all of the small wind installations be monitored for one year and the data then compiled and evaluated to ascertain the amount of total energy produced by these systems. Within one year we will have several hundred installations in place throughout our extensive territories. Our data combined with the data of other Dyocore distributors throughout the state will be significant. The CEC then could evaluate real data and performance and then decide at that point if further revisions to the guidelines are needed. If the CEC requires any form of onsite analysis before installing then it will set the small wind program back and will have a detrimental impact on our business. In addition, pre-determined wind resources don't apply to the Dyocore product because of the nature of wind resources in conjunction with roof top installations. The aforesaid is another reason to collect the data from actual installations over broad geographic areas before deciding if any standard is warranted.

For all of the reasons stated above we strongly urge the CEC to retain their existing rebate structure based upon the capacity of the system.

#### Conclusion

Finally, as the CEC re-evaluates the ERP Guidelines, we encourage you to reflect on the past as you move forward into the future. The recent breakthrough in the market penetration and acceptance of small wind systems is extremely encouraging. However, the recent activity in small wind applications cannot continue without financial assistance from the ERP. Revisions to the ERP can have material adverse effects on the progress being made in the recent proliferation of small wind systems. We are hopeful that the CEC will continue with those facets of the ERP that are contributing to the recent success and eventual wide spread adoption of small wind systems to all participating California ratepayers.

We appreciate your attention and due diligence in reviewing our comments and concerns as you move forward in your review of this very important program.

Sincerely, Solar Point Resøarces, Inc<sub>4</sub>

Christopher M. Hawke Chief Executive Officer