From: Gridnot

To: California Energy Commission

**Subject: Emerging Renewables Program** 

**RE: Docket** 

August 21, 2011

DOCKET

DATE AUG 21 2011

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At the beginning of this year, we were presented with an unprecedented opportunity to bring new jobs and local production to our severely economically depressed high desert community. The California Energy Commission was offering a ratepayer financed subsidy of \$3.00 a watt, for small wind turbine installations. Also this year, the Federal government was offering a 30% tax grant and 100% accelerated depreciation to push businesses to develop renewable energy projects and jobs. Encouraged by the success of several solar leasing companies, we went to work creating a wind program.

In the process of developing new markets, you expect to encounter hurdles, delays, difficulties and expenses. Many California planning departments are hostile to wind and have zoning issues, building codes and variance costs that hamper it's development. Bergey Windpower was a pioneer and helped develop many of these issues good and bad. Many are having a hard time understanding small wind, concerned about height limits, noise ordinances and aesthetic issues. The price point, size, performance and noise levels of small wind systems have kept wind from working as a homeowner or small business solution. We have been working on this for many years, first intrigued with the idea of urban wind by the now defunct PacWind. We found that, only a rugged inexpensive small quiet turbine, tuned to be productive in lower wind speeds, could be successful as a neighborhood wind. We have tried working with Bergey and Southwest Windpower, while they have productive systems, they have not met all of the "neighborhood requirements".

We were researching CEC approved equipment when we were first approached by Victor Hunt of Dyocore in September of 2010. He offered a CEC approved system that included a solar panel with a small wind turbine. The solar panel would lower the impedance of the inverter and keep it "alive", to let the turbine harvest a much wider spectrum of wind throughout the day. Taking from the activities of solar leasing companies and the economics presented by the Dyocore turbines, we worked up a prospectus to offer systems to homeowners that were to be coupled with a solar array, for minimal cost. (See attachment A)

Dyocore wanted to sell a distributorship to us. We wanted to test a system prior to entering into an expensive distributorship agreement. Dyocore claimed not to have any product in stock, so they "could not" supply us with a system for testing. They wanted us to enter into an agreement that amounted to us giving them \$20,000, and waiting for product delivery

After speaking with Earl Schmidt and Tom Scaggs, two Dyocore distributors who had signed distribution agreements and were still waiting for product, we decided to purchase Dyocore equipment from them. We signed our first contract with Hesperia Outdoor Power Equipment (HOPE) and received our first R2. We understood from the CEC that contracts could be altered,

and amounts adjusted, on the final R2s based on the kind and size of system that would eventually be installed.

We focused on the windy areas of the Mojave Desert where permitting was relatively friendly. In this area, we were also faced with an upside down real estate market, where capital and equity are hard to come by. Even offering our low cost solutions to homeowners, where they would receive nearly all their money back, it has been difficult to sell anything in this depression. With the help of the rebate plan, we were able to sign up many low and middle income families that would never be able to afford this type of investment. With the limited budget we had, our viral marketing approach took off, beyond our expectations. We filled our windy community with excitement and hope with the prospect of new jobs and lower electric bills.

We started the "HOPE" job and hired the Dyocore recommend installer, Mars Electric. Mars Electric was working with Dan Cleveland, who is a Dyocore "Tech". Surprisingly, we had to develop a "sound report" for the Dyocore product, in order to get the City of Hesperia to issue a building permit for the installation. After a lengthy engineering and permitting process we finally received approval in early February. We were able to locate and purchase 7 turbines from the two Dyocore distributors in our area, complete the installation, and obtain the permit sign off on 3/12/2011, 8 days after the state suspended the program. We were able to get a Permit To Operate from Southern California Edison (SCE) and actually test whole the system. We then got our proof, by late March, that the Dyocore turbines did not perform at all as advertised.

We had tested one of the Dyocore turbines when it was first available to us and were less than satisfied with the initial performance and quality. Our first field test involved a Dyocore unit mounted to the back of a truck. The Dyocore frame mount had failed structurally, by cracking at its base attachment when placed under load. We were able to repair it by improving the weld at the base. A maximum voltage of 60 volts was recorded when the unit was actually placed under a wind load. We found an over amperage safety condition to exist, that could be caused from instantaneous production bursts. At this point, we decided not to use the Dyocore product. We notified the CEC and moved on to other manufacturers on the CEC's "approved equipment list".

When we attempted to get our rebate payment for the CEC approved Dyocore installation, we were informed by James Lee that Dyocore would not honor their warranty. This made us feel that Dyocore was in the business of selling distributorship's not product. This too was resolved in our favor. However, the CEC did demand that we provide the 5 year warranty on the turbines instead of Dyocore, in order to receive an approved R3 payment. (See attachment B)

On May 8, 2011 we had a wind storm in Hesperia and one of the Dyocore turbines snapped off, at the HOPE site. We called Dyocore and left a message about the incident. David Raines stated he would have someone visit the site to assess the situation. (See attachment C) No Dyocore representative came to the site, but a new arm was shipped to HOPE about a week and half after the incident. After many threatening phone calls from HOPE, we took it on ourselves to repair the damage. We are still out of pocket for the new replacement turbine unit and are contemplating how to deal with the money out of pocket this situation created.

To make matters worse, Mike Bergey was calling on the CEC with his own demands, that the CEC take the money back for our Dyocore install. Mr. Bergey's response to the situation was to point his finger at us and to imply that we are "hucksters" and "scam artists". The location data and demographics on our rebate applications will show we have good wind resources and many low and middle income customers. If Mr. Bergey had a better understanding of how to provide financing and priced his turbines more competitively, since they are also mostly made in China and have low manufacturing costs, he would have been able to compete with our marketing.

If this were a plan by Mr. Bergey to use the CEC to unfairly destroy his competition in California, it's insidious. As a 25 year market veteran he could weather the storm with sales in other states, while new upstarts, reaching for the California rebate funds, would fail. So far, the CEC has parroted most of Mr. Bergey's wish list to eliminate his competition. He has used his money and time to create the wind lobbying bodies AWEA, DWEA, and SWCC. Using these paper organizations, Mr. Bergey pushed for the shut down of the program, and the CEC complied. DWEA offered to help rewrite the guidebook and most of Bergey's suggestions are in the new Draft Guidebook ("possible changes to the ERP Guidebook"). The Draft Guidebook goes so far as to recommend the SWCC, of which Mr. Bergey is an officer, to test his competitor's turbines. Many are concerned with paying his organization \$65,000+ thousand dollars, with the idea that if they do not certified you in 12 to 18 months, your product will be automatically eliminated. According to the SWCC web site, Mr. Bergey testing organization has no field experience. This issue became apparent in the August 3rd workshop. The new guidelines also propose to fix prices above six dollars a watt to receive the full rebate. This directly supports Bergey's price structure, while punishing anyone delivering a more cost effective solution.

We call on the CEC to rectify the obvious inequities of the system as it has been administered. Please right this wrong. This is a good program that can benefit many Californians, both directly and indirectly. There are many people who are currently out of work, who could be put back to work immediately. Potentially there are over 500 small wind jobs in our area, just waiting for the CEC to reinstate the program. We highly recommend that the legislative intent of the program be honored and the rebates be given as originally offered, for "approved" systems that are placed in service in appropriate locations. During the CEC's second ERP workshop of August 3<sup>rd</sup> 2011, and comment period thereafter, viable solutions for improving the Emerging Renewables Program were presented. Mr. Bergey's conflict-of-interest wish list has already damaged all Californian's for 10's of million of matching federal subsidies by shutting our program down at a critical time. We request that changes to the Emerging Renewable Program Guidebook include only appropriate and reasonable revisions that improve the program, and which remain within the spirit of the program and in the spirit of helping Californians.

Eugene Buchanan

Signed

Vice President, Apple Acres Inc. DBA GRIDNOT

**Subject:** Need some information about the SolAir **From:** Eugene Buchanan <eugene@gridnot.com>

**Date:** Fri, 08 Oct 2010 10:20:22 -0700 **To:** dave@dyocore.com, info@gridnot.com

Dave,

We were contacted by Victor and offered a distributorship to sell your product. Our offices are located in the High Desert Region, so we were put into contact with Tom Scaggs. We are an Alternative Energy Sales and Consulting firm. After reviewing the web site, I had a few questions.

We have been working with a few different capitol companies.

We are exploring a leasing option that would essentially allow us to give the turbine away to home owners.

There are state wide implication for the program we are developing.

We would like to talk to you about how best to use our efforts.

I have some technical questions as well.

What are the effects on the turbines output if you increase the operating voltage of the circuit by wiring multiple units in series?

2 turbines producing 1600 watts connected to Power One 3.6kw.

I am assuming that one Turbine producing 1600w has a rectified voltage of 130v and 12.3 amps.

Combining two in series you would make 260v at 12.3 amps on the input side of the inverter?

I am interested in marketing a hybrid solar wind system based from the Power One 3.6kw line of inverters.

If I make 4 strings of 5 Kaneka 60 (67V/.9A) panels combine together is a fused combiner box to make 335v at 3.6 amps.

Then wire a SolAir in series with the array with blocking diodes.

335v + 130v = 465v

1200w + 1600w = 2800w

2800w / 465v = 6.02A

The Power One Inverter input voltage range goes upto 600v.

Would this work? Could it make the turbine perform better on low wind sunny days?

Thanks.

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Eugene Buchanan Vice President GRIDNOT

Cell: 760 887 2552 Fax: 760 961 0359

http://www.GridNot.com

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**Subject:** Re: Recap of events

From: Sarah Taheri <STaheri@energy.state.ca.us>

Date: Fri, 11 Mar 2011 15:31:27 -0800

**To:** Eugene Buchanan <eugene@gridnot.com>

**CC:** James Lee <Jslee@energy.state.ca.us>, "info@gridnot.com" <info@gridnot.com>, gail Fry <civicusanews@yahoo.com>

Hi Eugene,

Thank you for checking-in. I passed along this email to James, as it didn't initially get through to him (please note, his correct email address is actually <u>jslee@energy.state.ca.us</u> rather than <u>jlee@energy.state.ca.us</u>).

Staff is working to process all applications received. We understand that the processing time may affect retailers and installers involved with the program, and we appreciate your patience as we move forward.

Best,

Sarah

Sarah Taheri California Energy Commission Efficiency & Renewables Division Renewable Energy Office

Tel: (916) 654-3929

Email: <a href="mailto:staheri@energy.state.ca.us">staheri@energy.state.ca.us</a>

Eugene Buchanan <<u>eugene@gridnot.com></u> 3/11/2011 10:35 AM >>> James,

We started working with Dyocore In late December and they gave us MywindPower.biz as the distributor we could purchase from. We began evaluating and developing our own distributorship for eastern San Bernardino County.

We submitted our first job; Hesperia Outdoor Power Equipment and received an R2. It was difficult to find turbine stock yet we just finished the job with turbines purchased from Mywindpower.biz and Desert

Power Inc. whom both are Dyocore Distributors. The permit has been signed off and the job was performed by Dan Cleveland who worked for

Mars Electric, the main contractor of Mywindpower.biz. We sent in the  ${\sf R3}$ 

and final applications for net-metering.

We also received an R2 for Larry Winslow and are currently working on the permitting with the county.

On Monday February 21st I called Sarah Taheri at the CEC to check on the status of the additional 12 R1's we submitted for Dyocore installations. We spoke about a bill that was a little low for the size

of kW submitted. Another bill was a little to old. I said I would try

to correct the issues and send in a larger bill for the one site and get

a new bill for the other. I asked a question about the limits on systems sizes. Things seamed to be in order for the R2's to be issued.

We received a message later that day stating that there was a issue with

our applications at the state in an email from Victor Hunt at Dyocore.

Wednesday Feb 23rd I called and left a message for Sarah and on the General line asking about our applications. You called and explained that Dyocore told you that we were not distributors and that Dyocore would not honor our installations for warranties so our applications were currently suspended. We explained that we did not what to be a captive distributor and planned to buy our turbines and warranties from

Dyocore distributors. If Dyocore did not want to honor there warranties or do business normally we would be force to change the applications. You said that you were satisfied with the explanation

and said that they you would continue to process our R1's. Sarah would

be out until next week.

We faxed in the corrected bills.

Friday the 25th we received an R2 Application for Norma Palmer. We are

in process of completing this job with turbines supplied from TLG Windpower.

We have also spent considerable time working on a solution for low voltage Dyocore turbines to work better with the existing grid tie inverters. The power electronics package we developed will allow other

low voltage turbines on the CEC list to work with the Ginlong or

Power

One inverters. This opens up even more suppliers to be able to fill our orders.

We have received no more R2's from the state for new jobs.

Is Dyocore still blocking the application process for our R1's? We have

working agreements with Desert Power Inc. for supply of Dyocore turbines. I also have recent email from Victor Hunt on their development of direct reseller agreement for us.

Should we have our customers start inquiring about the status of their

applications? We have a couple of mayors, city council members and banks presidents who have applied and are starting to wonder what is going on.

We are looking forward to a response.

Thanks,

- -

## \*Eugene Buchanan\*

Vice President

GRIDNOT

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"He drew a circle that shut me out Heretic, rebel, a thing to flout. But

love and I had the wit to win; We drew a circle that took him in."

Re: Recap of events

Edwin Markham

Subject: RE: Monday at HOPE

From: "David Raine" <dave@dyocore.com>
Date: Mon, 9 May 2011 14:00:34 -0700

To: "'Eugene Buchanan'" <eugene@gridnot.com>

Thanks for this information Eugene. We have not seen this type of damage before. Wow! We have Dan visiting this site today, within the hour, he will remove the turbine and get it back to us for testing.

Our objectives with that site are to relocate the turbines and add in some solar. The turbine that was damaged was intended to be moved. However, we might now have to revisit our location placement, I was unaware of this type of potential damage but it could have been from a default in our weld of the inner tube that was further agitated by the conditions.

We will be contacting the Roofing company today as well to assure no damage was done. As of right now we are covering all costs associated with this specific turbine to include any repairs to the roof as needed.

I'll ask Jeremy to keep you in the loop as to the other changes we will be making to the install.

One of the inverters on the site was damaged due to improper ground wiring and needs to be replaced. Our experience with Aurora is this is going to cost about \$600 to repair. We are unsure if the 2<sup>nd</sup> inverter is damaged, we left the site the other day with it initiated but we were not experiencing conditions that would allow it start converting energy. It is highly likely that it was damaged as well due to the ground wire being setup wrong. I'm going to have Dan remove the one unit within the week and coordinate replacement with you. You will have to let us know how you would like to handle this.

David Raine DyoCore



www.dyocore.com p&f. 866-404-2428 c. 760-580-4271 dave@dyocore.com

From: Eugene Buchanan [mailto:eugene@gridnot.com]

**Sent:** Monday, May 09, 2011 12:07 PM

To: David Raine; hopemower@gmail.com; marselectrical@yahoo.com; Dan Cleveland

1 of 2 08/15/2011 06:50 AM

RE: Monday at HOPE

Subject: Monday at HOPE

Dave,

Unfortuantly the strong buffeting winds over the weekend caused a structual failure on one of the SolAir units on the Hesperia Outdoor Power Equipment. See attached photos.

Sonny is concerned about his roof warranty. Drunkinmiller Roofing Co (760 241 7866 or 760 403 5798) was this installer and Sonny has requested that he make the nessirary repairs to the roof to keep the warranty current. There is very minor damage to the roof.

We are under the impression you were coming to make some repairs. Please keep us in the loop.

--

## **Eugene Buchanan**

Vice President

## **GRIDNOT**

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"He drew a circle that shut me out Heretic, rebel, a thing to flout. But love and I had the wit to win; We drew a circle that took him in."

Edwin Markham

2 of 2 08/15/2011 06:50 AM