DOCKET
11-CAI-03
DATE JUL 26 2011
RECD. JUL 27 2011

From: David Raine <dave@dyocore.com>
To: <mlevy@energy.state.ca.us>
Date: 7/26/2011 10:23 PM
Subject: Response to Complaint Re DyoCore, Inc., Solar Wind Turbine
Attachments: DyoCore_response to CEC Notice.pdf

-----Original Message-----
From: David Raine [mailto:dave@dyocore.com]
Sent: Tuesday, July 26, 2011 10:20 PM
To: 'Robert Oglesby'; 'ralph@dyocore.com'
Subject: Response to Complaint Re DyoCore, Inc., Solar Wind Turbine

Thank you for this notice and the opportunity to respond.

We have attached our preliminary response. We hope it will be taken into consideration during your meeting.

We feel very strongly that the complaint is misleading and inaccurate of the facts.

Thank you for your consideration,

David Raine
DyoCore

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

-----Original Message-----
From: Robert Oglesby [mailto:ROglesby@energy.state.ca.us]
Sent: Tuesday, July 26, 2011 5:26 PM
To: ralph@dyocore.com
Cc: dave@dyocore.com
Subject: Complaint Re DyoCore, Inc., Solar Wind Turbine

Please see attachments below. Thank you.

DyoCore, Inc.
3125 Tiger Run Court, #104
Carlsbad, CA 92010

P/F 866.404.2428

www.dyocore.com

Mr. Michael J. Levy
Office of Chief Counsel
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: DyoCore Response to Complaint

Dear Mr. Levy,

Following is our response to the complaint presented to us on July 26, 2011 submitted by Robert P. Oglesby. The allegations in the complaint are misleading and false. We request a formal hearing and to be allowed to present facts that would clarify that DyoCore both met the requirements of the intended program and represented the program with the highest of intentions, integrity and honorably.

In response to point III A:

DyoCore's SolAir is exactly why the ERP was created. DyoCore did not develop the ERP and had no part in its designation, rebate structure, amount of rebate or in its management. DyoCore's SolAir was in development and being sold within the market before DyoCore's application to be included into the ERP at the same price point upon inclusion. DyoCore's SolAir is the first product of its kind. It is amongst the lowest cost turbines on the market, it applies to the broadest range of potential users and meets all required certifications for use in most CA urban communities. In fact it is in most communities the very first and only allowed residential roof mounted turbine.

DyoCore has worked diligently in development of SolAir, education within the market and the drive behind the acceptance of new policies and regulations that will benefit the entire industry for years to come. DyoCore did this at its own expense, with no grants and no government funding. Because of these accomplishments the ERP now has a venue that applies to the majority of homeowners opposed to the 1% it previously applied to. This is not a burden on the ERP it lends to the pinnacle success of the ERP. Removing DyoCore from the listing based on false allegations substantially cripples the program and halts its intended purpose while also discouraging the development of new technology and lower cost energy alternatives.

DyoCore's product price point was established before application to the program and before knowledge of the rebate allotted to its product. The end result was that the rebate allotted upwards of 100% towards the full purchase and install of the SolAir system. This was known by the CEC and encouraged by the CEC program management staff. It was never indicated that this was a concern or that DyoCore's price point was a violation of the programs intention. The ERP states directly that it was designated to encourage lower cost products. DyoCore meets that expectation.

In Response to part III B:

DyoCore did not create the rules for application, DyoCore simply submitted an application and the materials requested. DyoCore collected almost two years of data from two reporting sites, one in Hampshire IL, the other in San Marcos CA. It was determined by NEMA that the raw data from the site in Hampshire IL would be acceptable due to higher average annual wind conditions. The review and listing of DyoCore's SolAir

DyoCore, Inc.
3125 Tiger Run Court, #104
Carlsbad, CA 92010

P/F 866.404.2428

www.dyocore.com

was done by NEMA, a third party with no affiliation to DyoCore. When the listing was granted it was DyoCore's understanding that the rating was based on Annual Average Wind and not based on a specific wind speed. These two are completely different sets of data. At an annual average wind speed of 18mph, which could and did represent times in which winds were substantially greater at both locations, the expected production was 1.8kW. In real-time winds of 18mph the production is approximately 212 watts, this is about 66% of the BETZ maximum 59%. This information was provided and available to NEMA upon application. It was our understanding that the rating was Annual Wind Speed Production and presented, evaluated and determined by NEMA not DyoCore.

A comparison of the two side by side is attached herein. (Attachment A)

When the listing rating was given to DyoCore NEMA contacted us and asked if we wanted to modify our rating from 12mph to a higher rated amount because we had the lowest rating wind speed on the approved list. Most other products were rated at winds well above 25mph. We had felt we were being conservative at only 18mph as we felt most Urban areas where our product primarily applied would never experience conditions greater than this. This is a direct indication of our integrity and intention upon acceptance of a listing.

Recently the CEC accepted the listing of another company's product that utilizes the DyoCore PMG. This product received a rating of 1.6 at approximately 32mph. Regardless of the "wind speed" rating, it has the same effect and outcome of rebate. The only variance is the wind speed at which the rating was applied. However, both our product and these companies receive the same rebate amount. This is not miss-intention on either party's part, it is simply a lack of formal standards for the purpose of qualification and rating.

At the time of listing DyoCore on the CEC the process was both new to us, to NEMA and to the CEC as only a handful of other products were ever listed with little or no standard in place. This is evident by the recent upset in the program and need for revision. However, even in its revision there still is no specific standard of rating or formal US process of certification other than suggested guidelines by AWEA. DyoCore has worked directly with TUV to meet UL standards and continues daily to collect and evaluate site data to better represent performance expectations based on specific install circumstances. DyoCore's website provides quite a bit of continued development material that is made public for the purpose of evaluation of its product and the intended use. http://www.dyocore.com/sphpblog_0511/index.php. Almost 50,000 unique visitors have watched and some participated in our continued development towards smart low cost urban alternative energy solutions.

DyoCore provides the highest level of product warranty – a 100% no questions asked policy on the removal or replacement of a non working system in addition to being the only company with highly trained professional distributors and installers that in contract support the product 100% after installation through the entire warranty term.

In response to part III C:

DyoCore completes all R1 applications to the rules and to the best of its ability to estimate wind conditions based on site evaluations. DyoCore cannot answer directly for its distributors but works diligently and in good faith to educate all its distributors and clients about proper site evaluations and placement of SolAir units in qualified locations. However, the wind is a difficult aspect to estimate with recent changes in the environment and further completed by the Urban landscape where most SolAir units are installed. This is a new market and in most areas the first application of its kind. There are hundreds of Urban area installations throughout CA, some in great locations and some in poor locations. All of which are fairly recent and/or just being completed. DyoCore will continue to collect data and use that knowledge to make better decisions on installation sites but also estimates on production. There unfortunately no history to base these assumptions on.

DyoCore, Inc.
3125 Tiger Run Court, #104
Carlsbad, CA 92010

P/F 866.404.2428

www.dyocore.com

There were companies that mislead potential clients indicating that they were an authorized Distributor, however they were not and sent formal notices to cease all representation of the DyoCore product and notice was given to the CEC that they were not an authorized distributor. We recommended to the CEC that they deny any applications that this company falsely sent in as an authorized representative of our product. This is the only instance known to us of potentially false applications and this was not done on the part or by a representative of DyoCore.

Our request for consideration and resolution:

DyoCore's SolAir has grown to be a significant Hybrid Wind/Solar energy tool within the emerging market with now hundreds units installed throughout CA and over a thousand worldwide. Short term installations are estimated at a little over 4000 units within the next year. SolAir is a significant change in who small wind applies to. Removal of SolAir damages dozens of business who with high integrity and honorable actions submitted qualified ERP reservations representing thousands of CA residents. Based on the numbers submitted in the complaint it would indicate that SolAir is the most successful small wind solution ever developed both in public demand but also in the push for the continued development of new wind technologies that apply to everyone and not just the few in remote areas and with significant financial resources.

If the contention is the listing rating, DyoCore requests to be considered for re-rating to the new ERP playbook guidelines as outlined in the July 2011 DRAFT and apply that rating to all currently outstanding held R1 reservations. DyoCore does not feel it would be in good faith to make any changes retroactive for currently held/issued R2s as all parties have acted honorably and both dozens of business and hundreds of CA residents have applied under qualified terms and the intention of the program.

DyoCore in June of 2011 submitted application to the SWCC and expects testing towards formal rating certification to begin shortly that both meets the new playbook standards and provides the CEC with a direct resolution to the complaint.

In the event of consideration of removal of the DyoCore product listing with the CEC DyoCore requests a formal hearing and that the Energy Commission will allow DyoCore reasonable time to prepare and present facts that demonstrate the statements as indicated herein, address all statements falsely represented in the Complaint and present its belief that not only does DyoCore meet the requirements of the CEC listing and ERP it is the pinnacle intended purpose of the program.

David Raine,
CTO DyoCore, Inc.
3125 Tiger Run Court, #104
Carlsbad, CA 92010
(760) 580-4271

CC:
Robert Oglesby
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

Office of Assemblyman
Martin Garrick

Office of Senator Wyland

DyoCore, Inc.
3125 Tiger Run Court, #104
Carlsbad, CA 92010

P/F 866.404.2428

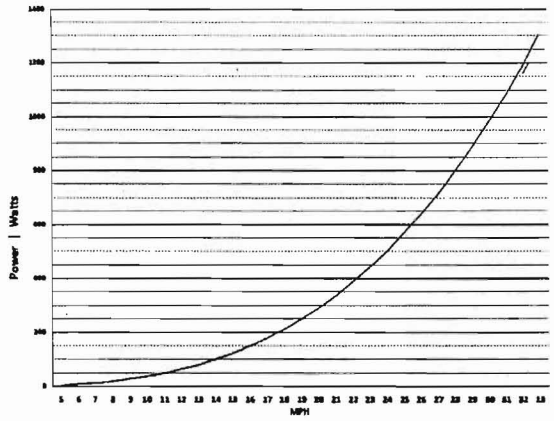
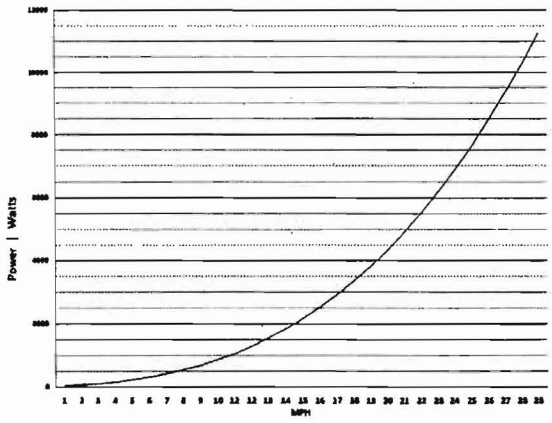
www.dyocore.com

Attachment A

Table showing SolAir expected power vs BETZ limit at constant wind speeds. SolAir is approximately 66% of the BETZ limit at a Cp of 45%.

mph	Watts	m/s	Betz Max @ .593
1	0	0.4	0
2	0	0.9	0
3	1	1.3	1
4	2	1.8	3
5	5	2.2	7
6	8	2.7	12
7	12	3.1	19
8	19	3.6	28
9	26	4.0	40
10	36	4.5	54
11	48	4.9	72
12	63	5.4	94
13	80	5.8	119
14	100	6.3	149
15	123	6.7	183
16	149	7.2	222
17	178	7.6	266
18	212	8.0	316
19	249	8.5	372
20	290	8.9	434
21	336	9.4	502
22	387	9.8	578
23	442	10.3	660
24	502	10.7	750
25	567	11.2	847
26	638	11.6	953
27	715	12.1	1068
28	797	12.5	1191
29	885	13.0	1323
30	980	13.4	1464
31	1081	13.9	1616
32	1190	14.3	1777
33	1305	14.8	1949
34	1427	15.2	2132
35	1556	15.6	2325
36	1694	16.1	2531
37	1839	16.5	2747
38	1992	17.0	2976
39	2153	17.4	3217

SolAir™ Power Curve
by Wind (mph)



SolAir™ Power Curve
Estimated Annual Power Production by Wind (mph)