

March 6, 2014

VIA MAIL & EMAIL

Town of Scituate
Board of Health
600 Chief Justice Cushing Highway
Scituate, MA 02066

Attention: Jennifer L. Sullivan – Director, Board of Health

Re: Meeting to Discuss Industrial Wind Turbine Testing Parameters

Thank you for your letter of March 3, 2014 requesting our attendance at the March 10 Scituate Board of Health meeting “to discuss possible changes that would allow favorable conditions for testing.”

As you are aware, on October 16, 2013, Tom Thompson wrote to MassDEP Deputy Commissioner Martin Suuberg in his capacity as Executive Director of the Alliance For Responsible Siting of Alternative Energy Installations (“the Alliance”), and as a negatively impacted resident of Scituate. The purpose of this letter was to formally request that the MassDEP approve proposed revisions to the Scituate / MassDEP protocol, focused specifically on wind speed, wind direction *and the inclusion of fast metering for the purpose of demonstrating compliance.*

You will also recall that on October 4, 2013, Mr. Thompson wrote to you, in your capacity as the Director of the Scituate Board of Health, to invite you to be a co-signatory to this October 16 letter. In Mr. Thompson’s October 4th email of invitation he stated that “we were encouraged that the Scituate Board of Health agreed with the neighboring families living in close proximity to the Scituate industrial wind turbine that the existing testing protocol should be amended to reflect focus on a southwest wind direction and that this was a positive step.”

In the spirit of cooperation, and in an attempt to advance this file, Mr. Thompson proposed that you, as Director of the Scituate Board of Health, co-sign his October 16th letter to jointly request amendments to the existing MassDEP approved testing protocol. On October 7th, you, as Director of the Scituate Board of Health responded to the proposal; “While I don’t disagree with your request, I believe that, at the least, I would need higher approval to sign it or the BOH could sign by themselves.” Mr. Thompson’s formal request that you, as Director of the Scituate Board of Health, co-sign this letter to Mr. Suuberg was circulated by you to Town Administrator Vinchesi, DPW head Bangert and the three members of the Scituate Board of Health. As of October 16th, you advised that “I have conveyed the letter to all the appropriate people and I have not heard back from any of them. Therefore, I don’t have the necessary approval.”

As an entity that is supposed to be separate and independent from Town government, we are still at a loss as to why you, as Director of the Board of Health, required approval to direct a letter to the MassDEP, drafted with a focus on protecting the health and safety of the constituency that you, and the Board of Health, are mandated to protect. After waiting twelve days from the date of the original approach, and in

the absence of “the necessary approval”, this letter was directed to Deputy Commissioner Suuberg by Mr. Thompson.

On November 20, 2013, Mr. Thompson received a responding letter from Mr. Suuberg, a copy of which is attached (you will note that the entity that oversees environmental compliance of industrial wind turbines made sure to copy Mr. Gordon Deane of Scituate Wind LLC, notwithstanding the fact that he was not, and should not be a party to a discussion involving the protection of the health and safety of impacted residents of the Commonwealth, when he and Scituate Wind LLC are clearly conflicted given their economic interests). To summarize the response from Mr. Suuberg, the MassDEP confirmed that it has no intention of agreeing to the proposed amended testing protocol for the purpose of confirming industrial wind turbine compliance with MassDEP noise guidelines. The response and position of the MassDEP is consistent with the MassDEP’s continuing support of the Massachusetts wind industry, to the detriment of all impacted residents of the Commonwealth, including the residents of Scituate; the same folks that you are mandated to protect.

We as the residents of Scituate most impacted by this industrial wind turbine, continue to express grave concerns regarding the integrity of any acoustical noise testing conducted by Tech Environmental, on behalf of its wind industry client, Scituate Wind LLC, the Town of Scituate and the Scituate Board of Health, and supported by the MassDEP. Furthermore, in the absence of the amendments requested of the MassDEP, said testing should be considered compromised and deficient given the fact that the existing testing protocol does not embrace optimum test conditions apropos of wind speed, wind direction and the inclusion of fast metering for the purpose of demonstrating compliance.

Until such time as the MassDEP reverses its decision, and until such time as the Scituate Board of Health finally commits itself to protecting the health and safety of those negatively impacted by the Scituate industrial wind turbine, it is our opinion that we have completed *due process*, in the Commonwealth’s executive and Administrative systems. To this end, and although we appreciate your kind invitation, we see no reason to attend your March 10, 2014 meeting.

Regards,



Gerard P. Kelly



Tom Thompson

cc: Neighbors of the Scituate Industrial Wind Turbine

TOWN OF SCITUATE

BOARD OF HEALTH



600 Chief Justice Cushing Hwy.
Scituate, Massachusetts 02066
Telephone (781) 545-8725
Fax (781) 545-8704

March 3, 2014

TO: Tom Thompson
149 Gilson Road
Scituate, MA 02066

Jerry Kelly
56 Moorland Road
Scituate, MA 02066

FROM: Jennifer L. Sullivan
Director, Board of Health

RE: **Meeting to discuss wind turbine testing parameters**

Since conditions needed by existing parameters for testing have not been favorable and therefore, there has been no testing of the wind turbine conditions, the Board of Health would like you to attend their next meeting on March 10th to discuss possible changes that would allow favorable conditions for testing.

Please let us know if you can attend this meeting. The meeting will have a 7:00 PM start time and this discussion will be scheduled at a specific time if the necessary people can attend.

CC: Board of Health
J. Toomey



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

November 20, 2013

Mr. Tom Thompson
Suite 364
759 Chief Justice Cushing Highway
Cohasset, MA 02025

Dear Mr. Thompson:

Thank you for your letter dated October 16th (but not received by this office until October 27th) regarding Scituate Wind. In addition, MassDEP received a letter from Scituate Wind, LLC on October 28th. A copy of that letter is attached.

Your letter asks for our concurrence with proposed amendments to the Scituate Board of Health's sampling protocol regarding wind direction, wind speed and metering speed. MassDEP has not received a request to review protocol changes from the Board and I assume that sampling is proceeding per the existing protocol. We offer the following observations with regard to the issues raised.

With regard to wind direction, the response of Scituate Wind indicates that sampling locations east of the turbine will be monitored during southwest wind conditions, a change apparently discussed and agreed to in a September Board meeting.

With regard to wind speed, I have asked staff with the most experience in designing and performing sound sampling to review your letter and Scituate Wind's letter. As noted in the Scituate Wind response letter, there are considerations to be taken into account when sampling at low wind speeds. At low speeds (5-7 mph) at the 10 meter height, the turbines may not be running, or if they are turning they could well be running at less than 60% power production. The current protocol requires capture of sound during a 60% or more power production scenario.

Finally, with regard to meter settings, currently an exceedence is determined by measurements taken by a meter on the slow setting. MassDEP is considering changes to its sampling approaches and is in active discussion with participants representing a number of perspectives in its Wind Turbine Noise Advisory Group. However, until MassDEP has finished receiving input and has formally adopted changes, the current protocols are in use. In some communities, both fast and slow meter settings have been taken,

Mr. Tom Thompson
November 20, 2013
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based on the agreement between the parties. However, for purposes of MassDEP determinations, as of now, exceedences will be determined based on existing protocols.

Sincerely,

A handwritten signature in blue ink, appearing to read 'M. Suuberg', with a long horizontal flourish extending to the right.

Martin Suuberg
Deputy Commissioner for
Policy and Planning

Enclosure

Cc: Jennifer Sullivan, Scituate Board of Health
Gordon Deane, Scituate Wind, LLC



c/o Palmer Management Corp.
13 Elm Street, Suite 200
Cohasset, MA 02025

October 28, 2013

Mr. Martin Suuberg
Deputy Commissioner for Policy and Planning
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108-4747

Re: Mr. Thompson Letter of October 16, 2013

Dear Mr. Suuberg:

The Scituate Board of Health forwarded me the subject letter addressed to you seeking to amend the acoustic testing protocol for the turbine owned by Scituate Wind, LLC (Scituate Wind) and installed on property owned by the Town of Scituate.

First, Mr. Thompson is poorly informed regarding the process, despite his participation in many meetings, including the September 11th Scituate Board of Health meeting at which the very items in his letter were discussed by the Board. Specifically, as a result of that meeting the Board asked Scituate Wind (a) to replace the sampling of a westerly wind which was part of the protocol (developed with Mr. Thompson's input) with sampling during a southwesterly wind, (b) to ensure that the turbine was operating at a capacity factor of at least 60% (900 kW) during the testing and (c) to redirect our consultant to have all testing conducted between midnight and 4 am. Those changes and clarifications to the protocol were immediately forwarded to Tech Environmental which responded on September 16th in its periodic update on wind conditions:

Per the decision of the BoH at last week's meeting, the sampling protocol has changed so that sampling locations east of the turbine will be monitored during southwest wind conditions only. Tech will be tracking both southwesterly and easterly wind conditions. Forecasted wind speed conditions will need to meet 12 mph greater from 12 am to 4 am to achieve a minimum of 900 kW or 60% power production also required by the BoH.

This response from Tech Environmental was forwarded to the Scituate Board of Health the same day.

With respect to Mr. Thompson's statement that the testing should be done with "wind speeds of no more than five to seven miles per hour," we have also previously responded to the Board of Health regarding an earlier request for 5-7 mph wind speeds with the following:

With respect to his statement about the turbine "being most impactful, at wind speeds of five to seven miles per hour," it's unclear at what height he is referring to that wind speed – hub height or at normally reported 10 meter height. The following table considers both 5 and 7 mph at 10 meters and at hub height,

translates to meters/second and then shows expected turbine output at those levels.¹

Miles per Hour*		Meters/Second		Projected Output	
10-Meter	80-Meter	10-Meter	80-Meter	kW	Percent
3.18	5.00	1.42	2.24	0	0.0%
4.45	7.00	1.99	3.13	9	0.6%
5.00	7.86	2.24	3.51	33	2.2%
7.00	11.00	3.13	4.92	148	9.9%
12.10	19.01	5.41	8.50	900	60.0%

* Estimated change due to height.

So I am assuming he means 5-7 mph at the 10 meter height because the turbine would not be generating with winds at 5-7 mph at the 80 meter nacelle height.

You will also note that none of these scenarios gets close to the 60% output requested by the Board which is represented in the last line of the above table.

To put his request re wind speed into context, from our SCADA system I downloaded and calculated the average 10 second wind speed at the nacelle during the time period for testing on the night of August 14-15 –

	<u>m/s</u>	<u>mph</u>
8/14/2013	11 pm to Midnight	
average	5.28	11.81
max	7.47	16.72
min	2.84	6.35
8/15/2013	Midnight to 3:00 am	
average	4.94	11.05
max	6.63	14.83
min	3.04	6.80

So assuming he meant 5-7 mph at the 10 meter height which is around 8-11 mph at the 80 meter nacelle height, we were at that wind level the night of the testing that now the community group is objecting to.²

¹ Some of the numbers in this table have changed slightly from what was presented in an email to the Board of Health since there was a data entry error in the original calculation converting m/s to mph and vice versa.

² Mr. Thompson's subject letter to you seems to clarify that he is talking about the lower height, although it's not quite clear what he means by "ground level wind speeds."

Given the above, Scituate Wind feels Mr. Thompson's requests for low wind speed and high output are inherently contradictory. This contradiction was continued in an email this past weekend to our consultant in which Mr. Thompson also objected that the turbine might "only be running at 60% of full power" output which was the minimum output level set by the Board of Health. Obviously, requiring even higher output from the turbine will mean even higher wind speeds at the hub, resulting in, for most conditions, even higher wind speeds at the ground level.³

Finally, Mr. Thompson has requested that MassDEP approve fast metering for the sampling protocol. Fast metering has already been discussed and rejected by the MassDEP as inconsistent with its historical sampling protocol. Further, Mr. Thompson does not inform you that fast metering was discussed at the September 11th Board of Health meeting and the Board again said it was not going to require fast sampling since it was inconsistent with the MassDEP requirements for compliance testing. Scituate Wind thinks it is inappropriate for Mr. Thompson and his associates to try to do an end run around the Board of Health by making such a request. Further, Scituate Wind is only required to do compliance testing and we have been firm that we will not pay for additional testing.⁴ For MassDEP to require fast testing would be putting a financial burden on the Scituate Board of Health for the additional data gathering effort.

We appreciate the cooperation of the MassDEP in our efforts in Scituate to date and we look forward to continue working with MassDEP and the Scituate Board of Health. Please let us know if you have any questions on any of this material.

Sincerely,
SCITUATE WIND, LLC
by its Manager,
Palmer Management Corporation



Gordon L. Deane
President

cc: Mr. Russell Clark, Chairman, Scituate Board of Health
Mr. Steven Pansey, Board Member, Scituate Board of Health
Mr. Michael Vazza, Board Member, Scituate Board of Health
Ms. Jennifer Sullivan, Director of Public Health, Scituate Board of Health
Ms. Patricia A. Vinchesi, Scituate Town Administrator
Mr. Albert G. Bangert, Director, Scituate Public Works

³ For full output, the hub height wind speed needs to be at or above 11 m/s or 24.5 mph.

⁴ As you know, Scituate Wind agreed to participate in the MassCEC data gathering efforts on wind turbine noise.



ALLIANCE *for* RESPONSIBLE SITING
of ALTERNATIVE ENERGY INSTALLATIONS

Telephone (781) 545-1715

www.altenergysiting.org

Facsimile (781) 378-2004

October 16, 2013

VIA E-MAIL

Massachusetts Department of
Environmental Protection
1 Winter Street
Boston, MA 02108

Attention: Martin Suuberg, Deputy Commissioner for Policy and Planning

Dear Mr. Suuberg:

Re: Industrial Wind Turbine – Scituate, MA

We are writing regarding on-going developments in Scituate, MA specific to the Town's acoustical testing protocol and to formally request the MassDEP's approval of amendments to same.

As this initiative has unfolded, it has become clear that the existing testing protocol should be amended apropos of wind direction and wind speed, as well as to include fast metering for the purpose of identifying compliance with MassDEP regulations.

Based on consistent information received by the Scituate community group most impacted by the industrial wind turbine, it is clear that optimum test conditions should recognize Southwest winds, or West / Southwest winds, with ground level wind speeds of no more than five to seven miles per hour. Information, originating from the impacted residents since commissioning of the Scituate industrial wind turbine and provided to the Scituate Board of Health, has consistently pointed to those wind conditions and the writers recommend that these conditions should be the focus of any revisions to the existing testing protocol.

Additionally, and further to your recent conversation with Scituate Board of Health Director Sullivan, we once again request approval from the MassDEP that fast metering be included in the revised protocol for the purpose of recording and analyzing the acoustical performance of the Scituate industrial wind turbine to confirm compliance or non-compliance. We point to the example of Kingston, MA, where at least one of the impacted residents of that community would not agree to testing equipment on their property until the MassDEP finally agreed to allow for fast meter readings as part of the Kingston testing protocol. We strongly encourage the MassDEP to

Suite 364 – 759 Chief Justice Cushing Highway, Cohasset, MA 02025



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of ALTERNATIVE ENERGY INSTALLATIONS

agree to have fast metering incorporated into the accepted test protocol for the purpose of demonstrating compliance in Scituate, and to ensure consistency of acoustical testing protocol between the two communities of Kingston and Scituate.

We respectfully request that the MassDEP formally approve these proposed revisions to the Scituate / MassDEP protocol, to reflect the proposed changes apropos of wind speed, wind direction and the inclusion of fast metering for the purpose of demonstrating compliance. Once in hand, the parties here in Scituate can then focus on identifying appropriate testing dates.

Your kind consideration is appreciated.

Yours truly,

T.S. (Tom) Thompson
Executive Director
The Alliance for Responsible Siting
Of Alternative Energy Installations

cc: Kenneth L. Kimmell, Commissioner MassDEP
Richard James, E-Cooustic Solutions Inc.
Gerard P. Kelly, Alliance Director
Dr. Raymond Hartman, Alliance Advisory Board Member
Jennifer Sullivan, Director – Scituate Board of Health