

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Docket No. 7508

Petition of Georgia Mountain Community Wind,)
LLC for a Certificate of Public Good, pursuant)
to 30 V.S.A. § 248, authorizing the construction)
and operation of a 5 wind turbine electric)
generation facility with associated electric)
collection and interconnection facilities on)
Georgia Mountain, in the Towns of Milton and)
Georgia, Vermont, to be known as the "Georgia)
Mountain Community Wind Project)

**PREFILED TESTIMONY OF
SCOTT MCLANE**

January 12, 2011

Summary: Scott McLane is a non-adjointing landowner intervening party. He has done extensive research to determine what other government agencies have done to determine appropriate property line setback standards for the siting of large scale wind turbines, and he has reviewed numerous municipal and county ordinances from multiple jurisdictions around the country, as well as state laws and administrative regulations, decisions, and guidance documents. He has summarized the content of those documents and his testimony presents that information to the Public Service Board.

EXHIBITS

State	County/Town	Document Name	Exhibit number
		Setback Summary Chart	SM1
Alaska	Kenai	Ordinance No. 2455-2009	SM2
Idaho	Jefferson County	Wind Energy Ordinance	SM3
Illinois	Coles County	Ordinance Governing Wind Energy Conversion Systems in the Unincorporated Areas of Coles County, Illinois	SM4
Illinois	Mason County	Ordinance Regulating the Siting of Wind Energy Conversion Systems in Mason County	SM5
Illinois	Platt County	Platt County Zoning Ordinance, Appendix B, Standards for Wind Energy Conversion Systems 51kW to 500kW	SM6
Illinois	Vermillion County	Vermillion County Wind Energy Structure Ordinance	SM7
Illinois	Winnebago County	Amendments to the Zoning Ordinance for the Purpose of Regulating Wind Power Generating Facilities	SM8
Indiana	Benton County	Ordinance for Regulating Energy Generation Using Wind Power in Benton County, Indiana	SM9
Indiana	Carroll County	Zoning Ordinance	SM10
Indiana	Cass County	Small and Large Wind Ordinance	SM11
Indiana	Clinton County	Clinton County Wind Ordinance	SM12
Indiana	Grant County	Wind Energy Conversion Systems (WECS) Siting Regulations	SM13
Indiana	Jay County	Wind Power Energy Generation Regulations	SM14
Indiana	Logansport County	Proposed addition to the Logansport Zoning Ordinance establishing a Small and Micro Wind Energy Conversion Ordinance	SM15
Indiana	Randolph County	Wind Energy Conversion System Siting Regulations	SM16
Indiana	Rush County	Zoning Ordinance	SM17
Indiana	Steuben County	Zoning Ordinance, Article 9A, Wind Energy Conversion Systems	SM18
Indiana	Tippecanoe County	Ordinance Amending Chapter of Ordinance No.	SM19
Indiana	Tipton County	Tipton County Zoning Ordinance	SM20

Indiana	White County	White County Zoning Ordinance, WECS Siting Regulations	SM21
Iowa	Boone County	Zoning Ordinance Section 8.04, Commercial/Utility Wind Energy Systems	SM22
Iowa	Mason City	Zoning for Wind Energy Conversion Systems	SM23
Iowa	Plymouth County	Zoning Ordinance for Plymouth County, Iowa	SM24
Iowa	Polk County	Ordinance Regulating Wind Energy Conversion Systems	SM25
Iowa	West Burlington	Wind Energy Systems Ordinance	SM26
Maine		Maine State Planning Office Model Wind Energy Facility Ordinance	SM27
Maine	Buckfield	Wind Energy Facility Ordinance	SM28
Maine	Dixmont	Wind Energy Facility Ordinance	SM29
Maine	Montville	Town of Montville Wind Turbine Generator Ordinance	SM30
Maine	Phillips	Town of Phillips, Maine, Wind Energy Facility Ordinance	SM31
Massachusetts			
Massachusetts	Salem	Zoning Ordinance	SM32
Michigan		Michigan Siting Guidelines for Wind Energy Systems	SM33
Michigan	Centreville	Centreville Township Zoning Ordinance for Commercial Wind Energy Systems	SM34
Michigan	Grand Haven	City of Grand Haven Zoning Ordinance	SM35
Michigan	Gratiot	Wind Energy Facility Ordinance	SM36
Michigan	Ionia	An Ordinance to Amend the Codified Ordinances of the City of Ionia By Adding a New Chapter, Which Chapter Shall be Designated Chapter 1287 Entitled Wind Energy Systems to Title Six -- Zoning of Part 12 -- Planning and Zoning Code of the Codified Ordinances	SM37
Michigan	Manchester Township	Ordinance Number 67, Manchester Township, Washtenaw County, Michigan, Wind Energy Conversion Systems	SM38
Michigan	Otsego County	Wind Turbine Generator Ordinance	SM39
Michigan	Ottawa County	Model Wind Energy Ordinance	SM40

Michigan	Portland	Wind Energy Conversion Systems Ordinance	SM41
Michigan	Wilson	Zoning Ordinance, Section 10.21, Commercial Wind Generation	SM42
Minnesota		Order Establishing General Wind Permit Standards	SM43
Minnesota	Chippewa	Zoning Ordinance, Section 12, Windpower Management	SM44
Minnesota	Goodhue County	Zoning Ordinance	SM45
Nebraska	Grand Island	Ordinance No. 9261	SM46
Nebraska	Madison	Wind Energy Conversion Facilities, Madison County Addition to Current Zoning Regulations	SM47
Nebraska	Saunders County		SM48
New York	NYSERDA	Wind Energy Model Ordinance Options	SM49
New York	Brandon	Wind Energy Facility Law	SM50
New York	Carroll	Zoning Law of the Town of Carroll	SM51
New York	Fenner	Local Law No. 2000-02 of the Town of Fenner	SM52
New York	Gorham	Zoning Local Law of the Town of Gorham	SM52A
New York	Hamlin	Local Law Governing Wind Energy Facilities in the Town of Hamlin	SM53
New York	Harrisburg	Town of Harrisburg Zoning Law	SM54
New York	Holland	Wind Energy Conversion Systems Ordinance	SM55
New York	Mayville	Zoning Law of the Village of Mayville	SM56
New York	Meredith	Wind Energy Law	SM57
New York	Montague	Town of Montague Land Use Law	SM58
New York	Panama	Zoning Law of the Village of Panama	SM59
New York	St. Lawrence County	Model Wind Energy Facility Local Law for St. Lawrence County Municipalities	SM60
New York	Turin	Town of Turin Rural Development Law	SM61
New York	West Turin	Town of West Turin Zoning Law	SM62
North Carolina		North Carolina Wind Working Group, Model Wind Ordinance for Wind Energy Facilities in North Carolina	SM63

North Carolina	Ashe County	An Ordinance to Regulate Wind Energy Systems in Ashe County, North Carolina	SM64
North Carolina	Camden County	Ordinance No. 2007-09-01	SM65
North Carolina	Carteret County	Carteret County Code of Ordinances, Appendix F: Tall Structures, Article 3. Wind Energy Facilities	SM66
North Carolina	Currituck County	Currituck County Unified Development Ordinance	SM67
North Carolina	Hyde County	Ord2008-10-01, An Ordinance of the Hyde County Board of Commissioners Relating to Wind Energy Facilities	SM68
North Carolina	Kill Devil Hills	Kill Devil Hills Code of Ordinances, Section 153.177(d), Conditional Uses, Wind Turbines	SM69
North Carolina	Tyrrell County	Tyrrell County, North Carolina, Wind Energy Facilities Ordinance	SM70
North Carolina	Watauga County	Watauga County Ordinance to Regulate Wind Energy Systems	SM71
North Dakota		North Dakota Statute, Chapter 49-22, Energy Conversion and Transmission Facility Siting Act	SM71A
North Dakota	Morton County	Wind Energies Facilities Ordinance	SM72
North Dakota	Wells County	Wells County Zoning Ordinance, Article 12-Wind Energy Facilities	SM73
Ohio		ORC Chapter 4906-17, Application Filing Requirements for Wind-Powered Electric Generation Facilities	SM74
Oregon	Department of Energy	A Model Ordinance for Energy Projects	SM75
Pennsylvania	Millcreek	Ordinance No. 2009-4	SM76
Pennsylvania	Valley Township	An Ordinance Amending the Valley Township Zoning Ordinance in Order to Provide for the Installation and Use of Wind Energy Facilities Within the Township	SM77
Pennsylvania	Washington	Ordinance Amending Chapter 131 of the Washington Township Code of Ordinances, Zoning Ordinance, By Adopting Article XXIV, Et Seq. Which Shall Provide for Alternative Energy Systems Within the Township	SM78
South Dakota		SDCL, 49-41B-22 and ARSD 20:10:22:18 and 20:10:22:19	SM78A
South Dakota		Draft Model Ordinance for Siting of Wind Energy Systems (WES)	SM79

South Dakota	Brown County	Second Revision of Brown County Ordinances	SM80
South Dakota	Harrisburg	Ordinance No. 2008-10	SM81
South Dakota	Lawrence	Lawrence County Zoning Ordinance	SM82
Texas	Garland	Comprehensive Zoning Ordinance	SM83
Virginia	Amherst	Untitled Ordinance	SM84
Virginia	Nelson County	Small Wind Energy Ordinance	SM85
Virginia	Rockingham County	Ordinance Repealing Chapter 17, Article VII Use Regulations, Division 6B and Re-enacting Chapter 17, Article XII Wind Energy Conversion Systems Divisions 1 and 2 of the Code and Ordinances of Rockingham County, Virginia	SM86
Wisconsin	Public Service Commission	PSC Rule 128, Wind Energy Systems	SM87
Wisconsin	Chilton	Wind Energy Systems Licensing Ordinance	SM88
Wisconsin	New Glarus	Wind Generator Ordinance	SM89
Wisconsin	Polk County	Small Wind Energy Systems Ordinance	SM90
Wisconsin	Ridgeville	Wind Energy Conversion Systems Ordinance	SM91
Wisconsin	Trempealeau County	Wind Generator and Wind Generating Facility Ordinance for Trempealeau County	SM92
Wisconsin	Union Township	Wind Energy Systems Licensing Ordinance	SM93
Wisconsin	Wilton	Wind Energy Conversion Systems Ordinance	SM94
Maine	Oakfield	Evergreen Wind Power II, LLC, Findings of Fact and Order	SM95
Maine	Record Hill	Record Hill Wind, LLC, Findings of Fact and Order	SM96
Maine	Spruce Mountain	Spruce Mountain Wind LLC, Findings of Fact and Order	SM98
Minnesota	Oak Glen	Large Wind Energy Conversion System Site Permit for the Oak Glen Wind Farm	SM99
New Hampshire	Coos County	Decision Granting Certificate of Site and Facility with Conditions	SM100

New Hampshire	Lempster	Decision Issuing Certificate of Site and Facility with Conditions	SM102
Ohio	Heartland	Heartland Wind, LLC, Opinion Order, and Certificate	SM104
Ohio	Paulding	Paulding Wind Farm, LLC, Opinion, Order, and Certificate	SM105
Ohio	Timber Road	Paulding Wind Farm II, LLC, Opinion, Order, and Certificate	SM106
Oregon	Golden Hills	Site Certificate for the Golden Hills Wind Project	SM108
Oregon	Helix Wind	Helix Wind Power Facility, Final Order	SM109
Oregon	Montague	Site Certificate for the Montague Wind Power Facility	SM112
Oregon	Stateline	Fourth Amended Site Certificate for the Stateline Wind Project	SM113
South Dakota	Buffalo Ridge	Buffalo Ridge II, LLC, Final Decisions and Order	SM114
South Dakota	White Wind	Navitas Energy, Inc., Decision and Order Approving Stipulation and Granting Permit to Construct the White Wind Farm and Associated Collection Substation and Electric Interconnection System	SM115

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**PREFILED TESTIMONY OF
SCOTT MCLANE**

1 Q1. Please state your name, address, and occupation.

2 A1. My name is Scott McLane. My address is 1179 Georgia Mountain Road, Fairfax,
3 Vermont, and I am employed as a mechanical engineer.

4
5 Q2. Are you a party to this proceeding?

6 A2. Yes. I have been granted status as an intervening party.

7
8 Q3. Have you previously testified in this proceeding?

9 A3. Yes.

10

11 Q4. Are you offering your testimony today on your own behalf?

12 A4. Yes, and on behalf of my wife, Melodie. I have also been authorized to offer, and I am
13 offering, this testimony on behalf of all of the landowner intervening parties, including

1 Jane and Heidi FitzGerald, Daniel and Tina FitzGerald, Kenneth and Virginia Mongeon,
2 Kevin and Cindy Cook, George A. and Kenneth N. Wimble, and Matthew and Kimberly
3 Parisi.

4
5 Q5. What is the purpose of your testimony?

6 A5. The Public Service Board's ("PSB") June 11, 2010, Findings and Order ("Order") in this
7 matter contained a condition that Georgia Mountain Community Wind, LLC
8 ("Petitioner") "incorporate into the proposed Project design an appropriate set-back
9 distance from adjacent property lines." The PSB's Order also contained language
10 providing that the PSB would hold additional proceedings to determine the appropriate
11 setback. The PSB's findings made clear that they wanted to determine an appropriate
12 setback to mitigate safety risks related to ice throw and potential turbine collapse, and
13 noted that other government agencies have established setbacks to address the safety risks
14 associated with wind turbines. I have examined the wind turbine setback standards as
15 established by other government agencies from around the country and I wish to present
16 that information to the PSB.

17
18 Q6. Please describe for the Board the research you performed with respect to wind turbine
19 setback standards and to otherwise determine what other governmental agencies had
20 determined as to property line setbacks?

1 A6. I performed extensive research using the internet, reviewed copies of ordinances, orders,
2 bylaws and related materials and organized those materials to determine if there are any
3 written, definitive or other standards which can be identified.
4

5 Q7. Can you describe for us generally the methods you used to do your research?

6 A7. I started by searching for setback regulations from other states.
7

8 Q8. What did you find?

9 A8. I found that the United States Department of Energy has a web site related specifically to
10 wind energy. That web site contains links to many town and county ordinances, as well
11 as state guidelines and model ordinances that specifically address wind turbine siting,
12 including setbacks. I reviewed all of the linked ordinances available through the
13 Department of Energy's web site as of January 6, 2011. If the linked ordinances indicated
14 that the documents were a draft, I would then try to find the applicable municipality's web
15 site to find the adopted version of the ordinance.
16

17 Q9. Did you do additional searching besides using the Department of Energy's web site?

18 A9. Once I finished reviewing the materials available through the DOE web site links, I
19 expanded my research by using various search engines to find state laws and
20 administrative regulations and decisions that addressed large, commercial wind turbine

1 siting and setbacks.

2

3 Q10. Let me show you what has been marked as Exhibit SM 1 and ask if you can identify this
4 document for me.

5 A10. Exhibit SM 1 is a chart that I prepared that summarizes the setbacks contained in the
6 documents that I reviewed. These include municipal and county ordinances from
7 multiple jurisdictions around the country, as well as state laws and administrative
8 regulations, decisions, and guidance documents. Overall, I reviewed approximately 95
9 ordinances, laws, and regulations and 15 administrative decisions. I also reviewed, but
10 did not include in Exhibit SM 1, ordinances that ban large, commercial wind turbines
11 altogether.

12

13 Q11. Let me also show you what have been marked as Exhibits SM2 through SM115. Can you
14 identify these documents for me?

15 A11. These are copies of the relevant sections of the documents that I reviewed that contain the
16 setback information that is summarized on Exhibit SM1.

17

18 Q12. Are you offering your own opinions as part of your testimony?

19 A12. No, I am only offering a summary of the contents of the documents that I have read and
20 that are included in Exhibits SM2 through SM115.

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Q13. From your review and summary of those materials what conclusions, if any, were you able to determine related to property line setbacks established by other government authorities relative to wind turbines?

A13. My conclusions are best shown on Exhibit SM1. Exhibit SM1 demonstrates that most jurisdictions require property line setbacks of between 1.1 and 1.5 times the total height of the turbine. I should clarify that whenever I use the term "total height" or "total height of the turbine" in my testimony I am referring to the height of the tower plus the rotor blades when a blade is extended vertically from the tower at its highest point above the ground.

Many jurisdictions require property line setbacks that are multiples of the total height. Some ordinances define the required property line setbacks in terms of total distance measured in feet, but most base the setbacks on a multiple of the total height of the turbine. In only a small sampling of the ordinances that I reviewed were setbacks set at less than the total height for large, commercial wind turbines, and only five, one from Grand Island, Nebraska, and four from Lewis County, New York, would allow for a setback as small as 150 feet for a turbine of the size being proposed by Petitioner for this project.

Q14. Does every jurisdiction take the same approach in determining property line setbacks?

1 A14. No. Each state which regulates wind turbine development has adopted a slightly different
2 approach to the setback issue. There is no uniform or model statute or ordinance,
3 although a definite minimum setback is almost always mandated.

4
5 Q15. Please describe some of the approaches taken in different jurisdictions.

6 A15. In Ohio, for example, large scale wind farms with greater than 5 megawatts of capacity
7 must receive a permit from the Ohio Power Siting Board. For such projects, Ohio has
8 established property line setbacks by state statute at 1.1 times the total height of the
9 turbine. An exception is allowed if the affected neighbor waives the setback. The Ohio
10 statute, Ohio Revised Code, section 4906.20, is shown on Exhibit SM74.

11 In Minnesota, projects greater than 5 megawatts of capacity must receive a permit
12 from the state Public Utilities Commission. The Minnesota Public Utilities Commission
13 has established property line setbacks by regulation as five times the rotor diameter on the
14 predominant wind axis and three times the rotor diameter on the secondary wind axis.
15 Minnesota's regulations are shown on Exhibit SM43.

16 In Oregon, wind farms with 35 megawatts or more of capacity must receive a
17 permit from the Oregon Energy Facility Siting Council. The Oregon Energy Facility
18 Siting Council has not adopted specific setback regulations, but their decisions indicate
19 that the Council has established a minimum property line setback of 1.1 times the total
20 height in order to protect public health and safety. The Council increases the minimum

1 setback to 3,520 feet from the property line of any property that is zoned for residential
2 use. Copies of four of their recent decisions can be found in Exhibits SM108, SM109,
3 SM112, and SM113. In addition, for projects not subject to the Council's review, the
4 Oregon Department of Energy has published a Model Ordinance to guide local counties
5 in their planning. The Model Ordinance suggest a minimum property line setback of 1.5
6 times the total height to protect public safety. The Oregon Model Ordinance is shown on
7 Exhibit SM75.

8
9 Q16. Are there any other state regulations you believe are instructive?

10 A16. Yes. In Wisconsin, the Public Service Commission has recently adopted rules that
11 preempt local regulation of wind energy system siting. The Wisconsin rules set the
12 property line setback at 1.1 times the total height. The Wisconsin rules are shown on
13 Exhibit SM87.

14 Both North Dakota and South Dakota have a adopted a state-level permitting
15 process for large wind turbines, but both sets of regulations generally defer to local
16 zoning or other ordinances for the establishment of property line setbacks. The North
17 Dakota and South Dakota statutes and applicable regulations are shown on Exhibits
18 SM71A and SM78A, respectively. The South Dakota statutes provide that the South
19 Dakota Public Utilities Commission can preempt local ordinances upon a finding that the
20 local ordinances are "unreasonably restrictive". At least one decision from the South

1 Dakota Public Utilities Commission, however, indicates that the Commission will give
2 substantial deference to local land use controls. In the Commission's Buffalo Ridge
3 decision it required the applicant to forego construction of part of the facility if the
4 turbines couldn't be located within local setback requirements. A copy of the Buffalo
5 Ridge Decision is contained in Exhibit SM114. Also, the South Dakota Public Utilities
6 Commission has issued a Model Ordinance for Siting of Wind Energy Systems as a guide
7 for county-level land use polices. The South Dakota Model Ordinance sets property line
8 setbacks at the greater of 500 feet or 1.1 times the total height of the turbine. The South
9 Dakota Model Ordinance is shown on Exhibit SM79.

10
11 Q17. Did you find any relevant property line setback standards that were established by
12 administrative decisions?

13 A17. Yes. In Maine the state-level siting authority is with the Maine Department of
14 Environmental Protection and with the Maine Land Use Regulation Commission,
15 depending upon the specifics of the project. Although there are no statutory or regulatory
16 standards, through its orders in connection with specific siting decisions the Maine
17 Department of Environmental Protection has established a recommended safe property
18 line setback of 1.5 times the total height. In arriving at this setback, the Department noted
19 that it "considered industry standards for wind energy production in climates similar to
20 Maine, as well as the guidelines recommended by certifying agencies such as Det Norske

1 Veritas." To the extent the Department's orders have allowed a lesser setback it has only
2 been in instances where the turbine developer secured an easement on the adjoining
3 property to provide the balance of the safety setback area. The Maine Department of
4 Environmental Protection Decisions are set forth in Exhibits SM95, SM96, and SM98. In
5 addition, the Maine State Planning Office has issued a Model Wind Energy Facility
6 Ordinance as guidance for Maine municipalities. The Model Ordinance calls for
7 minimum property line setbacks of 1.5 times the total height. The Maine Model
8 Ordinance is shown in Exhibit SM27.

9 Finally, similar to Maine, New Hampshire does not have state-wide property line
10 setbacks that are established by statute or regulation. Decisions of the New Hampshire
11 Site Evaluation Committee, however, indicate that the Committee has endorsed property
12 line setbacks of 1.1 times the total height as being consistent with industry standards.
13 Some relevant decisions of the New Hampshire Site Evaluation Committee are contained
14 in Exhibits SM100 and SM102.

15
16 Q18. Are there other states that have state-level property line setbacks?

17 A18. I did not find any evidence of state-level, mandated property line setbacks in other states,
18 but in addition to those mentioned above I found model wind turbine siting ordinances
19 from Michigan, New York, and North Carolina. The Michigan and North Carolina model
20 ordinances call for minimum property line setbacks of 1.5 times the total height. These

1 model ordinances are shown in Exhibits SM33 and SM63, respectively. The New York
2 model ordinance, published by the New York State Energy Research and Development
3 Authority, offers several alternative provisions for property line setbacks ranging from the
4 smallest setback of the total height plus 50 feet, up to two times the total height. The
5 New York Model Ordinance is shown in Exhibit SM49.

6
7 Q19. What did you find for setback standards other than at the state level?

8 A19. As I mentioned above, I found local municipal and county ordinances from across the
9 country that addressed property line setbacks for large, commercial wind turbines. As
10 summarized in Exhibit SM1, the majority of those ordinances set minimum property line
11 setbacks equal to between 1.1 times the total height and 1.5 times the total height.

12
13 Q20. Do any of those ordinances discuss the rationale or basis for their adoption of the property
14 line setbacks?

15 A20. Yes. Most of them discuss that the setbacks are necessary for safety in the event of a
16 tower collapsing or tipping over. For example, the Polk County, Iowa, Ordinance
17 Regulating Wind Energy Conversion Systems, provides for a minimum setback of 1.1
18 times the total height "thus should the structure collapse or topple, it shall come to rest
19 wholly within the property lines on which it is located." The Polk County Ordinance is
20 shown on Exhibit SM25.

1 Q21. Do any of the ordinances you reviewed allow for exceptions to the minimum setback
2 areas?

3 A21. Only in very limited circumstances. Many of the ordinances allowed for exceptions if an
4 easement was obtained from the neighboring property owner to make up the extent of the
5 setback area. Some of the ordinances also allowed the decision-making body to grant a
6 lesser setback if there was a specific engineer certification as to the maximum fall zone
7 under all possible circumstances and, ostensibly, other safeguards are in place.

8

9 Q22. Were you able to determine if different property line setback standards are applied where
10 there are no structures reasonably near the adjoining property line?

11 A22. Yes. As all the exhibits demonstrate, property line setback standards are consistently
12 applied even in remote areas.

13

14 Q23. Are there any examples you can provide?

15 A23. First of all, there are no exceptions that I found that were based on the location of the
16 property, except to the extent that the Oregon Energy Facility Siting Council increases the
17 required property line setback from 1.1 times the total height of the turbine to 3,520 feet
18 if the adjoining property is zoned residential, which is referenced in their decisions in
19 Exhibits SM109, SM112, and SM113, and the Polk County, Iowa, Ordinance Regulating
20 Wind Energy Conversion Systems increases the property line setback from 1.1 times the

1 total height of the turbine to 1,320 feet if the adjoining property is zoned anything other
2 than agricultural, which is referenced in Exhibit SM25. In addition, the New Hampshire
3 Site Evaluation Committee, in its Decision Issuing Certificate of Site and Facility with
4 Conditions to Lempster Wind, LLC, for a 24MW wind facility in Lempster, New
5 Hampshire, endorsed a setback standard of 1.1 times the total height of the turbine even
6 though it specifically noted that the project was in a remote location. That decision is
7 contained in Exhibit SM102.

8
9 Q24. Based on your research have you determined whether there is an industry standard for
10 property line setbacks?

11 A24. I did not find a definitive, written industry standard for property line setbacks. As I noted
12 above, however, the Maine Department of Environmental Protection has stated in several
13 of its decision orders that it considered industry standards in determining a property line
14 setback of 1.5 times the total height. In addition, as I also noted above, the majority of
15 property line setbacks in the ordinances I reviewed have established setbacks of between
16 1.1 and 1.5 times total height.

17
18 Q25. Based on the ordinances that you reviewed, have you determined what the average
19 setback requirement would be for the Petitioner's project?

20 A25. If one applied each property line setback requirement to the project and then averaged the

1 results, the required setback would be approximately 785 feet, or just over 1.75 times the
2 total height of the tower plus the rotor. At the local level, however, there is significant
3 variation. Local property line setbacks range from 100 feet to 5759 feet. I found much
4 more consistency at the state level for those states that have implemented state-level
5 siting permits. If one applied only the state-level mandated property line setbacks, the
6 required setback would be approximately 585 feet, or just over 1.3 times the total height
7 of the tower plus the rotor.

8
9 Q26. So, after reviewing setback requirements from around the country, what does your
10 summary indicate would be an appropriate setback for this project?

11 A26. My research indicates that a property line setback of 1.3 times the total height would be in
12 line with setbacks required by other decision-making authorities that have reviewed the
13 safety issues associated with industrial scale wind turbines and determined appropriate
14 setbacks.

15
16 Q27. Are there any property line setbacks from other jurisdictions that are particularly
17 instructive for Vermont?

18 A27. Yes. In particular I note that Maine and New Hampshire both have topographies and
19 climates similar to Vermont. Those two states have established minimum property line
20 setbacks of 1.5 times the total height and 1.1 times the total height, respectively, both of

1 which minimum setbacks are in line with the 1.3 times average that I determined from my
2 research. In addition, their administrative decisions indicate that those setbacks have been
3 applied to projects similarly located to the Petitioner's project.
4

5 Q28. Is there a minimum standard for a property line setback that your summary indicates
6 should be applicable to this project?

7 A28. Based on my research, any property line setback of less than between 1.1 and 1.5 times
8 the total height of the turbines, without an easement agreement in place to make up the
9 balance of the area, would be a significant departure from the standards established by the
10 overwhelming majority of other jurisdictions that have considered and established
11 property line setbacks for wind turbine siting.
12

13 Q29. Does that conclude your testimony today?

14 A29. Yes.
15