STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8816

Petition of Swanton Wind LLC for a certificate of	)
public good, pursuant to 30 V.S.A. § 248, for the	)
construction of an up to 20 MW wind-powered	)
electric generation plant to be located in Swanton,	)
Vermont	)

SWANTON WIND'S RESPONSES TO QUESTIONS 1-5, 8-26, 28, 35-49, 51-53, 57-69, 71, 73-78, 80-82, 143, 145-149, 153, 156, 158-167 OF THE CHRISTINE AND DUSTIN LANG'S FIRST SET OF INFORMATION REQUESTS

Q. LANG:PETITIONER 1-1: Identify all partners, managers, and members of Swanton Wind LLC. In further regards to the identity and regulatory status of Petitioner, please:

A) Admit that you are not a public utility.

B) Admit that this Project is not a public utility generating plant or transmission facility.

C) Admit that you do not own or operate electricity distribution systems.

D) Admit that you do not sell or distribute electricity to the public.

E) Identify and provide any and all documents referenced in or supporting the answers you provide to items 1-1 A-D above.

RESPONSE:

Objection to the request on grounds that:

1. The request it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding, and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The State of Vermont is preempted by federal law from applying to Swanton Wind LLC any law or regulation respecting the financial and organizational regulation of electric utilities pursuant to 16 U.S.C.S. § 824a-3(e) and 18 C.F.R. § 292.602(c)(1)(ii), further making the request beyond the scope of this proceeding and not reasonably calculated to lead to the discovery of admissible evidence.
3. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
4. It is overly vague because "public utility" is an undefined term.

Notwithstanding and without waiver of the objections, Swanton Wind admits that it does not own or operate an electric distribution or transmission system and does not currently sell electricity to any member of the public.

Please see Attachment Lang 1-1 for a copy of Swanton Wind's FERC Form 556 and related FERC Acceptance.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-2: Relative to investors in and financing for the Project, please:

A) Identify all equity investors in the Project.

B) Describe in detail the debt financing of the Project, including lender name, type of financing, proposed terms, etc.

C) Identify all marketing strategies and materials utilized to seek and secure investors in the project.

D) Identify all federal and state SEC filings relative to solicitation of investors in the project.

D) Admit that an entity independent of Petitioner has performed a financial feasibility analysis of this proposed project, and identify that entity.

F) Produce the financial feasibility analysis of the Project.

G) Admit that an entity has performed a financial analysis, also called a proforma, for the Project, and identify that entity.

H) Produce the financial analysis, or proforma, for the Project.

I) Produce any and all documentation referenced in or supporting your responses to items 1-2 A)-H) above.

RESPONSE:

Objection to the request on grounds that:

1. The request it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding, and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The State of Vermont is preempted by federal law from applying to Swanton Wind LLC any law or regulation respecting the financial and organizational regulation of electric utilities pursuant to 16 U.S.C.S.

§ 824a-3(e) and 18 C.F.R. § 292.602(c)(1)(ii), further making the request beyond the scope of this proceeding and not reasonably calculated to lead to the discovery of admissible evidence.

4. Information sought by the request is confidential and proprietary and its public disclosure will cause harm to Swanton Wind's legal and financial interests.

Notwithstanding and without waiver of the objections, please see Attachment Lang 1-1.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-3: Identify any and all interests in the Project -- economic, managerial or otherwise -- of David Blittersdorf. Identify and produce all documents, communications, and contents of oral communications between you and David Blittersdorf.

RESPONSE:

Objection to the request on grounds that:

1. The request it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding, and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The State of Vermont is preempted by federal law from applying to Swanton Wind LLC any law or regulation respecting the financial and organizational regulation of electric utilities pursuant to 16 U.S.C.S. § 824a-3(e) and 18 C.F.R. § 292.602(c)(1)(ii), further making the request beyond the scope of this proceeding and not reasonably calculated to lead to the discovery of admissible evidence.
3. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Notwithstanding and without waiver of the objection, Swanton Wind responds that David Blittersdorf has no legal, economic or managerial interest in the Swanton Wind Project.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-4: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Land Trust.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. Is not reasonably calculated to the lead to the discovery of admissible evidence.
3. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Notwithstanding and without waiver of the objection, Swanton Wind does not possess or control any documents or communications with the Vermont Land Trust that are responsive to this request.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-5: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Housing and Conservation Board.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. Is not reasonably calculated to the lead to the discovery of admissible evidence.
3. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Notwithstanding and without waiver of the objection, Swanton Wind does not possess or control any documents or communications with the Vermont Housing and Conservation Board that are responsive to this request.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-8: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Agency of Commerce and Community Development or any subdivision thereof.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Objection by counsel.

Q. LANG:PETITIONER 1-9:Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Agency of Natural Resources.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016. The PSB granted the Langs party status on sub-criteria water conservation and burden on exiting water supply as related to potential impacts on their well-water supply. The Langs were denied intervention on all other natural resource issues on which they requested intervention: air and water purity, the natural environment, use of natural resources, streams, wetlands, soil erosion, and rare and irreplaceable natural areas.

Notwithstanding and without waiver of the objection, Swanton Wind does not possess any documents or communications with the Agency of Natural Resources concerning the Langs' well-water supply or potential impacts on their well.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-10: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Department of Public Service.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. It seeks documents protected by the attorney work-product privilege.

Notwithstanding and without waiver of the objection, Swanton Wind responds that the Langs have in their possession documents responsive to this request that Christine Lang obtained pursuant to a July 21, 2015 public records request to the Department of Public Service.

On July 28, 2016, Travis Belisle, John Zimmerman, Martha Staskus, and Leslie Cadwell met at the Department of Public Service with Chris Recchia, Commissioner, Jon Copans, Deputy Commissioner, and Aaron Kisicki, Special Counsel. The parties discussed the status of the project, the sound assessment being prepared for the Section 248 filing, the PSB's temporary sound rule, and a proposed property buy-out proposal that Swanton Wind was considering to include as part of the Section 248 submission. Counsel's notes from the meeting are confidential and privileged attorney work product. Swanton Wind does not possess other notes from this meeting.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-11: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Housing and Conservation Board.

RESPONSE:

Objection to the request on grounds that:

1. The request is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request is duplicative and intended only to harass and annoy the Petitioner.

Notwithstanding and without waiver of the objection, please refer the response to Question 5.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-12: Identify and produce all documents, communications, and contents of oral communications between you and the Rocky Ridge Homeowners Association.

RESPONSE:

Objection to the request on grounds that is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.

Notwithstanding and without waiver of the objection, please see Attachment Lang 1-12.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-13: Identify by Town of Swanton (or Fairfield or St. Albans if applicable) parcel number each and every parcel upon which any portion of the Project will be located, including in your response the name of the record owner of said parcel and the Town Land Records Book and Page of the deed(s) by which such parcel was acquired by the present record owner.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request seeks information that is available from public land records that the Langs have equal ability to access in order to obtain the requested information.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Parcels with SPAN #s 639-201-12370 (Book/Page: 330 / 177-179) owned by Travis Belisle and 639-201-12207 (Book/Page: 268/ 631-632) owned by Bourbeau Farm LLP.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-14: Identify all land development of any type including structures, improvements, or subdivisions, and permits for any such land development, and each of the parcels identified by you in your response to Question 1-13 above.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request seeks information that is available from public land records that the Langs have equal ability to access in order to obtain the requested information.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Please refer to the site plans filed with the petition (Exhibit SW-IAJ-2), which show the structures and improvements existing within the area immediately surrounding the proposed Project infrastructure as of the date of the petition.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-15: Identify all rights of way, easements, and ownership interests other than record ownership for each of the parcels identified in your response to Question 1-13 above, including in your response the Town Land Records Book and Page of the documents memorializing such rights of way, easements or ownership interests.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request seeks information that is available from public land records that the Langs have equal ability to access in order to obtain the requested information.

Objection by counsel.

Q. LANG:PETITIONER 1-16: Identify the Town Parcel Number that comprises the location of each wind turbine proposed for inclusion in the Project.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request seeks information that is available from public land records that the Langs have equal ability to access in order to obtain the requested information.

Notwithstanding and without waiver of the objection, please refer to the response to Question 13.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-17: For each parcel identified in your response to Question 1-13 above which is not owned by you, identify and produce each and every document, communication, and contents of oral communication between you and the owner of said parcel, including but not limited to any lease, contract, easement or other agreement which you assert comprises a grant of site control or other permission to place any portion of the Project on said parcel.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. The request seeks confidential and proprietary information whose public disclosure would harm Swanton Wind's legal and financial interests.

Objection by counsel.

Q. LANG:PETITIONER 1-18: Identify and produce any and all surveys produced by you or at your direction relative to the Project.

RESPONSE:

Krebs and Lansing surveyed various fence line locations in March of 2016. Please see Attachment Lang 1-18 for the data collector files.

Response provided by: Ian Jewkes, Krebs & Lansing

Q. LANG:PETITIONER 1-19: Identify any and all persons or entities with whom you have communicated in regards to purchasing or otherwise transferring the Project, its CPG, or the land parcels underlying the Project. Identify and produce all documents, communications and contents of oral communications between you and any such person or entity identified.

RESPONSE:

Objection to the request on grounds that:

1. The request it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding, and is not reasonably calculated to lead to the discovery of admissible evidence.
4. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
2. The State of Vermont is preempted by federal law from applying to Swanton Wind LLC any law or regulation respecting the financial and organizational regulation of electric utilities pursuant to 16 U.S.C.S. § 824a-3(e) and 18 C.F.R. § 292.602(c)(1)(ii), further making the request beyond the scope of this proceeding and not reasonably calculated to lead to the discovery of admissible evidence.
3. Information sought by the request is confidential and proprietary and its public disclosure will cause harm to Swanton Wind's legal and financial interests.

Objection by counsel.

Q. LANG:PETITIONER 1-20: State the linear distance from the base of each turbine proposed for inclusion in the Project to the nearest property line of each parcel identified by you in your response to Question 1-13 above.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Please see Swanton Wind's response to question 127 of the Towns of Swanton and Fairfield's first set of information requests in this proceeding, which are posted at the following weblink: https://app.box.com/v/SWResponses-SwantonFairfield.

Response provided by: Ian A. Jewkes, Krebs & Lansing

Objection by counsel.

Q. LANG:PETITIONER 1-21: State the linear distance from the base of each turbine proposed for inclusion in the Project to the nearest property line of each right of way, easement or other ownership interest identified by you in your response to Question 1-15 above.

RESPONSE:

Objection to the request on grounds that:

1. The request is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.
2. The request seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Objection by counsel.

Q. LANG:PETITIONER 1-22: State the linear distance from the base of each turbine proposed for inclusion in the Project to the residence of Christine and Dustin Lang.

RESPONSE:

Swanton Wind has not performed the calculation requested by this question, but the information may be derived from the site plans filed with the petition, Exhibit SW-IAJ-2.

Response provided by: Ian A. Jewkes, Krebs & Lansing

Q. LANG:PETITIONER 1-23: Identify and produce any documents, communications or contents of oral communications relative to the development of your property buy-out proposal, including in your response any analysis upon which you relied to select the distance of 3000 feet as the outer limitation of such proposal.

RESPONSE:

Objection to the request to the extent that it seeks trial preparation materials and information protected by the attorney client and attorney work product privileges.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Please see the answer to Question 10.

Responses provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-24: Identify -- by Town parcel number, name of owner, and/or street address -- each and every property or parcel contained within the limits of your by-out proposal.

RESPONSE:

Objection to the request to the extent that it asks Swanton Wind to create a compilation of data that is not yet in existence.

Notwithstanding and without waiver of the objection, Swanton Wind has not compiled the requested information but is able to state that Christine and Dustin Lang's property is within the limits of the buyout proposal.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-25: The prefiled testimony of Travis Belisle at p. 9, line 10, A13, includes the phrase 'Based on my experience with sales in the Rocky Ridge neighborhood since we issued the 45-day notice last year...'. Please describe this experience in detail. In your response, identify and produce any documents, communications and contents of oral communications relative to each and every sale or property in the Rocky Ridge neighborhood since the issuance of the 45-day notice for this Project.

RESPONSE:

Since June of 2015 there have been two house sales in the Rocky Ridge neighborhood. 10 Rocky Ridge sold on 9/22/15. The house was listed with Keri Lombardi-Poquette who works for Paul Poquette Realty Group, LLC and sold by Cheryl Boissoneault at Four Seasons Sotheby's International Realty. Ashley Belisle spoke with the sellers of the property (David and Linda Ainsworth) about their plan to moving to Texas due to a job transfer.

17 Rocky Ridge sold on 3/11/16. The house was listed with Keri Lomabardi-Poquette who works for Paul Poquette Realty Group, LLC and sold by Phillip Gerbode who works for Coldwell Banker Hickok & Boardman. Ashley Belisle spoke with the seller's mother- the sellers had moved to Texas, where the seller- Orlando Quiroz – was originally from.

Please see Attachment Lang 1-25.

Response provided by: Ashley Belisle

Q. LANG:PETITIONER 1-26: The prefiled testimony of Travis Belisle at p. 9, line 12-13, A13, includes the phrase '...we will be able to re-sell quickly any property we purchase under the program.'. Please describe in detail all facts and analysis upon which you base this representation. In your response, identify and produce any documents, communications and contents of oral communications referencing or supporting this assertion that properties purchased under your buy-out program are likely to be quickly re-sold.

RESPONSE:

In July of 2015, Ashley Belisle researched home sales within the past year with a radius of 2.5 miles from Georgia Mountain Road- where there is an active wind farm. Research was done on sales through MLS- the Multiple Listing Service used by real estate agents, and did not include For Sale By Owner sales. Sales analyzed went back approximately a year- into June of 2014. Data showed that properties- most specifically on Georgia Mountain Road- were selling quickly. Days on market are as follows:

MLS #4388172

791 Georgia Mountain Road 17 days on market

MLS #4402583

1609 Georgia Mountain Road 29 days on market

MLS #4403840

911 Georgia Mountain Road 37 days on market

MLS #4408486

1091 Georgia Mountain Road 14 days on market

Per Northern Vermont Board of REALTORS market statistics, in July of 2015, year to date average days on market for houses in the town of Georgia was 110.

Please see Attachment Lang 1-26 for the documents responsive to this request.

Response provided by: Ashley Belisle

Q. LANG:PETITIONER 1-28: The prefiled testimony of John Zimmerman at p. 3, line 19, A6, references "the Project parcel." Please identify the reference Project parcel by Town parcel number, owner, and Town Land Records book and page of the deed to the present owner.

RESPONSE:

Please see the response to Question 13.

Response provided by: John Zimmerman, VERA

Q. LANG:PETITIONER 1-35: The prefiled testimony of David Raphael, p. 4 line 7 A6, states that views of the project from sensitive resources "will not be dominant...". Please define and describe in detail the meaning of the word 'dominant' as used by Mr. Raphael in this sentence.

RESPONSE:

See Exhibit SW-DR-2, Appendix 1. Methodology, beginning on page. 1-23, for a description and explanation of visual dominance.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-36: Please state whether or not it is Mr. Raphael's opinion that the Project will be dominant in the view from the home of Christine and Dustin Lang.

RESPONSE:

Mr. Raphael does not have an opinion as an analysis using the methodology outlined in the Landworks report, which considers visual sensitivity, visual effect, and viewer effect, was not conducted for this specific location.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-37: Please state whether or not it is Mr. Raphael's opinion that the Project will be dominant in the view from Rocky Ridge Road.

RESPONSE:

Mr. Raphael does not have an opinion as an analysis using the methodology outlined in the Landworks report, which considers visual sensitivity, visual effect, and viewer effect, was not conducted for this specific location.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-38: The prefiled testimony of David Raphael, p. 4 line 7 A6, states that views of the project from sensitive resources "will not be ...out of scale...".

A. Please identify each and every element of the landscape, as viewed from sensitive resources, which is of the same or similar scale as the wind turbines in the proposed Project.

B. Please identify each and every element of the landscape, as viewed from the home of Christine and Dustin Lang, which is of the same or similar scale as the wind turbines in the proposed Project.

RESPONSE:

Scale and dominance are not measured only as a comparison to other features in the landscape. They are evaluated through a number of objective tools, which are considered together. These are outlined in Exhibit SW-DR-2, Appendix 1. Methodology.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-39: The prefiled testimony of David Raphael, p. 4 line 7 A6, states that views of the project from sensitive resources "will not be ... imposing...". Please define and describe in detail the meaning of the word 'imposing' as used by Mr. Raphael in this sentence.

RESPONSE:

Imposing in this usage refers to being overly burdensome, or such that it would unduly alter the use and enjoyment of those resources to an unacceptable level.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-40: Admit that motion attracts the attention of the viewer to the moving object. If you deny this, please state in detail the basis for your opinion, and identify and produce any and all analysis, research or resource materials relied on by you in the formation of such opinion.

RESPONSE:

Motion per se does not automatically attract attention. While motion can be noticeable, there are a number of variables that dictate the degree to which motion attracts attention (e.g. distracting, noticeable, unnoticeable), such as but not limited to context of view, viewer activity, distance, atmospheric conditions, viewer predilections, duration of view, stationary vs. mobile views, etc.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-41: Admit that the *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM Lands,* United States Bureau of Land Management 2013 at p. 32 states, "Motion is a strong attractant of visual attention, and facilities with moving components or other sources of visible motion are more likely to attract attention. An obvious example is the motion of wind turbines...."

RESPONSE:

Admitted that the quoted text appears on page 32 of the cited publication. The BMP identifies motion as one of several inherent visual characteristics that may affect a turbines visibility. It does not state however that motion is the key factor in determining the magnitude of a turbine' visibility.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-42: State whether or not you concur with the statement quoted in Question 1-41 above, and if not, please state in detail the basis for your opinion, and identify and produce any and all analysis, research or resource materials relied on by you in the formation of such opinion.

RESPONSE:

Please see the responses to Questions 40 and 41.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-43: Admit that the *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM Lands,* United States Bureau of Land Management 2013 at p. 24 states, "Movement of the viewer during the act of viewing a facility, as when viewing from an automobile on the highway or while walking down a trail, causes the viewing geometry to change, which can have dramatic effects on visibility and visual contrast. As rapidly changing viewing geometry changes the orientation of the line of sight to reflective surfaces, bright flashes of light, abrupt changes in apparent color, and abrupt changes in the patterns of light and shadows may result. For moving viewers, the visual experience of wind facilities ... tends to be very dynamic, with major changes in the appearance of the facilities sometimes occurring over short periods of time or with small changes in viewer position."

RESPONSE:

Admitted that the quoted text appears in the cited publication, but denied that the text appears on page 24. The text appears on page 25.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-44: State whether or not you concur with the statement quoted in Question 1-43 above, and if not, please state in detail the basis for your opinion, and identify and produce any and all analysis, research or resource materials relied on by you in the formation of such opinion.

RESPONSE:

This statement is not meant to be dissected and analyzed in isolation. When evaluated within its full context, and within the goals of the BMP, which is to help site renewable energy projects, not deter them, this statement provides an understanding of how the visibility of an object can change under differing conditions. These include but are not limited to distance, viewer geometry, atmospheric conditions, viewer motion, background, lighting, duration of view, etc. All of these factors must be considered to understand the degree of visibility and its potential effect on the viewer.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-45: Admit that motion onset, that is, the commencement of motion from a static condition, attracts visual attention more than does consistent motion, as described in Abrams, R. A., Christ, S. E.(2004). Automatic capture of attention by the onset of motion. *Journal of Vision*, 4(8): 826, 826a, doi:10.1167/4.8.826, funded by the National Science Foundation.

RESPONSE:

Neither admitted nor denied as neither Swanton Wind nor Mr. Raphael possess or have read a copy of article cited in the request.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-46: Please describe in detail how Mr. Raphael considered the impact of the motion of the wind turbines proposed for construction in the Project in his aesthetic analysis report for this Project. In your answer, identify and produce any visual simulations, models or animations utilized or considered by Mr. Raphael to determine the impact of motion as a component of the aesthetic analysis of this Project.

RESPONSE:

The consideration of motion and movement with regard to wind turbine visibility is an inherent factor in Landworks' review and conclusions, and it considers a number of variables, as discussed in the answer to Question 40. Landworks has found generally that the effects of project size, proximity, scale, context and the extent of visibility from any particular vantage are similar whether evaluating turbines in motion or at rest.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-47: Please describe in detail how Mr. Raphael considered the impact of motion onset in his aesthetic analysis report for this Project. Please state with particularity whether the impact of motion onset was considered by Mr. Raphael in his analysis of the proposed Project's dominance of the viewshed.

RESPONSE:

"Motion onset" as defined herein is not a tool typically used by aesthetic experts in visual analyses. Moreover, the onset of motion generally captures attention when it is abrupt and irregular, not when it is smooth and regular, like the motion of turbine blades.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-48: Please state whether the motion of the wind turbines -- that is, the blades when rotating -- will be visible from the home of Christine and Dustin Lang.

RESPONSE:

Please see the response to Question 36.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-49: Please state whether the motion of the wind turbines -- that is, the blades when rotating -- will be visible from Rocky Ridge Road.

RESPONSE:

Portions of Rocky Ridge Road will have visibility of moving rotors. See also the response to Question 37.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-51: Please state whether Mr. Raphael has ever testified in any proceeding in Vermont that any development project of any type would create an undue adverse aesthetic effect. If so, please identify such project, and produce Mr. Raphael's report and testimony regarding it.

RESPONSE:

Yes. Mr. Raphael has so found on several gravel pit proposals, several development projects, and in solar and transmission line permit reviews. Specific projects are identified and the case numbers are provided for reference as these sources can be readily found on line. Under each of these cases one can access both our reports and testimony using the Docket or Project numbers provided, as appropriate.

Vermont Public Service Board (Section 248)

http://epsb.vermont.gov/?q=node/2

- Cabot Cell Tower, Cabot, VT, Docket #8549
- Lincoln Cell Tower, Lincoln, VT, Docket #8356
- VELCO Lamoille County Project, Lamoille County, VT, Docket #7032
- VT Department of Public Service Northwest Reliability Project, Vergennes to South Burlington, Docket #6860
- Waterbury Cell Tower, Waterbury, VT, Docket #8601
- Searsburg Wind Project, Searsburg VT, Docket #5823

ANR Act 250 Database

https://anrweb.vt.gov/anr/vtanr/Act250.aspx

- Calais Gravel Pit Expansion, Calais, VT, Project #5W0738-2
- Frog City Sand & Gravel, Plymouth, VT, Project #3W1049
- Moretown Rock Quarry, Moretown, VT, Project #5W1455
- Rochester Quarry Development, Rochester, VT, Project #3W0977
- Edgewater Center, Charlotte, VT, Project #4C1288

State of Vermont Superior Court - Environmental Division

https://www.vermontjudiciary.org/GTC/Environmental/default.aspx

- Chester Dollar Store, Chester, VT, Docket 36-3-13

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-52: The prefiled testimony of David Raphael, p. 4 line 11 A6, states that the project "...will not undermine the quality of ... the viewer experience." Please define and describe in detail the meaning of the phrase 'the viewer experience' as used by Mr. Raphael in this sentence. In your response, identify and produce any and all resources, facts or data utilized by Mr. Raphael in his analysis and the formulation of his opinion that the project "...will not undermine the quality of ... the viewer experience."

RESPONSE:

See Exhibit SW-DR-2, Appendix 1. Methodology beginning on page 1-28 for a detailed discussion on how Landworks determines how the project's visibility will affect the reasonable person from a particular sensitive scenic resource.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-53: The prefiled testimony of David Raphael, p. 4 lines 11-12 A6, states that "a person would not be shocked or offended to see a wind energy project in this type of landscape." Identify and produce any and all resources, facts or data utilized by Mr. Raphael in his analysis and the formulation of his opinion that "a person would not be shocked or offended to see a wind energy project in this type of landscape," including in your response the identify of any and all persons whom Mr. Raphael consulted or inquired from regarding whether or not they would be shocked or offended in this context.

RESPONSE:

This conclusion is discussed in the Aesthetic Analysis Exhibit SW-DR-2. See also Appendix 1. Methodology of the Exhibit for a detailed understanding for how visual sensitivity, visual effect and viewer effect are measured and considered.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-57: Exhibit SW-DR-2 at p. 6 states that the Project "will not result in an unreasonable visual effect for a number of reasons, including but not limited to: the limited number of turbines visible...". Please define with particularity what is meant by the phrase "limited number" in this context, including in your response a statement as to how many wind turbines would comprise an example that exceeds the meaning of the phrase "limited number" as used here.

RESPONSE:

The maximum number of turbines potentially visible at any given point is 7. The average size of operational wind turbine projects in Vermont is 13 turbines. The Swanton Wind Project is on the lower end of "number of turbines" visible in comparison to other operational projects within the state (i.e. Lowell has 21, Sheffield 16, Searsburg 11, and Georgia 4), as well as those being considered (i.e. Grafton Wind up to 28, Deerfield Wind 15). The BLM BMP page 55 even suggests "Use fewer, larger turbines to achieve desired power output in preference to using a greater number of smaller turbines."

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-58: Exhibit SW-DR-2 at p. 6 states that "The hill itself does not include important or outstanding visual or physical qualities...". Please state whether the analysis which lead to this opinion included consideration of the Vermont Land Trust's conservation of portions of the Bourbeau parcel on this hill, and the St. Pierre parcel facing this hill, for the purpose of protecting those parcels' outstanding visual resources. If so, please explain in detail the disparity between the Vermont Land Trust assertion of the view of this hill as an outstanding visual resource with your assertion that the hill does not include important or outstanding visual qualities.

RESPONSE:

Objection to the request on grounds that it is overly vague and ambiguous by failing to provide a unique identifier for the property it refers to ("Vermont Land Trust's conservation of portions of Bourbeau parcel on this hill," "the St. Pierre parcel facing this hill") and is not susceptible to a responsive answer.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

The Bureau of Land Management (BLM) has developed a clear, consistent, and objective process to help its managers rate the visual quality of a resource, which includes evaluating seven key factors that make up the landscape: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. We use this established methodology to understand the scenic quality of a resource or area. The hill that the Project is proposed on does not score in the high range. Though it is pleasing, it is not a highly unique or "one of a kind" feature. Moreover, while private investment in particular parcels is commendable, it is not a sole factor in identifying the cultural significance of a resource as a whole. Landworks uses adopted and approved town plans, which are formulated and ratified by town vote, to understand the significance of a resource. Highly valued resources are typically identified, and clear goals and policies for their preservation, conservation, and/or protection are typically included. This was not the case for the hill the Project is proposed on.

Response provided by: David Raphael, Landworks

Objection by counsel.

Q. LANG:PETITIONER 1-59: Exhibit SW-DR-2 p. 19 illustration titled "The Working Landscape" indicates that the entirety of the ridge on which the Project is proposed to be located is not a working landscape. Please explain with particularity the meaning of the phrase "working landscape" as used in this context.

RESPONSE:

The land cover codes "hay/pasture" and "cultivated crops" from the National Land Cover Database 2006 were used to illustrate "cultivated/working lands" as shown on the figure.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-60: Exhibit SW-DR-2 p. 78 states:

> The applicants have taken several steps that have improved the project's harmony with its surroundings and reduced the overall potential for visual effect and substantive visual change in the project viewshed. These include 1) the decision to site a wind energy project on an amenable landform; 2) the selection of the project location and decision to develop a renewable energy project in an area near to the major population centers of St. Albans and Swanton and distant from highly scenic, sensitive, remote and/or undeveloped landscapes; 3) the proximity to transmission infrastructure; and, 4) a project scale and layout (only 7 turbines over a project distance from end to end that is less than a mile) that reduces the overall project visibility and minimizes landscape disturbance. These factors in turn reduce clearing of existing vegetation, in addition to reducing construction costs and the potential for impacts to natural resources and water quality.

In regards to this statement, please explain with particularity:

> A) the standard by which the words 'improved' and 'reduced' are being compared -- that is, improved from what, and reduced from what;
>
> B) how siting the proposed Project on a ridge reduces its visibility, makes it more harmonious with the landscape, and/or diminishes the extent of the substantive visual change created by it;
>
> C) how you have determined that St. Albans and Swanton are "major population centers";
>
> D) what transmission infrastructure you are referencing in item #3, and how proximity to such infrastructure alters the aesthetics of the proposed Project; and,
>
> E) what the relationship is between construction costs and the Project's aesthetic impact.

RESPONSE:

A. Given the potential for the project's development to result in greater or lesser effects, and Mr. Raphael's experience with such effects, it is his conclusion that the applicant has taken steps to improve the project over what might have been or relative to other existing wind energy projects in Vermont – reducing the potential for typical impacts that other such projects have resulted in.

B. Turbines by necessity need to be sited at higher elevations in Vermont. This Project is sited on an unnamed hill that has not been identified as a significant scenic resource. It has gently sloping terrain, is at lower elevations, is not a prominent ridgeline, and has already been developed or can be developed. There also will be no visibility from major population centers, such as St. Albans, due to its proximity and location and lower elevation. These factors all contribute to limiting the Project's overall visibility.

C. Within the 10-mile radius, these are the areas where development and population densities are more highly concentrated. Evaluating USGS topographic maps, as well as reviewing Emergency E911 data illustrates this density.

D. Act 174, as well as other wind siting publications, have identified proximity to transmission and distribution corridors as a mitigating factor since it eliminates the need for extensive new infrastructure, e.g. new substation. By reducing or eliminating associated facilities, the overall visual impact is also minimized.

E. Costs of a project are not a consideration for visual effect, except perhaps in consideration of "reasonable" mitigation measures. However, reduced construction costs often translate into less landscape alteration and may reflect a better project that has fewer construction challenges and thus lower costs.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-61: Admit that utilizing fewer than 7 turbines would result in less overall project visibility and landscape disturbance than the proposed 7 turbines.

RESPONSE:

Denied. Without conducting a viewshed analysis and a thorough visual effect evaluation, it is not possible to understand the significance or degree to which it would affect project visibility within the region as a whole. Yes, utilizing fewer turbines would result in fewer turbines being seen from any given point, but it likely would not affect other factors considered in the Landworks visual effect analysis. For example: (1) percent of visibility – the area of visibility may remain the same (but fewer turbines would be visible within that area); (2) angle of view – depending on which turbines are removed, the angle of view could remain the same, or just slightly be reduced; (3) distance – will remain roughly the same; or (4) visual clutter – will remain low, or be reduced to low for the couple resources where it was moderate. The category of visual dominance would likely see the most change, but 11 of the 17 scenic resources was already rated low. Bumping the remaining 6 resources to moderate or low for visual dominance would not significantly change their overall visual effect rating (i.e. most resources were rated at low or low-moderate – see pg. 61), and therefore would not change the overall conclusions in the Landworks report (Exhibit SW-DR-2).

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-62: SW-DR-2 p. 5 states that "overall visibility within the region is largely blocked due to intervening topography....". However, SW-DR-2 App. 2 Viewshed TIP indicates visibility over the substantial majority of the 10-mile radius region. Please explain with particularity how the overall visibility of the project within the region is largely blocked due to intervening topography.

RESPONSE:

This map does not account for the screening effects of vegetation, buildings and other structures that may block views. This map only accounts for topography and represents "worst case scenario" if the land was bare and there was no vegetation, structures or other intervening features. Appendix 3 Viewshed Map of Exhibit SW-DR-2 accounts for the screening effects of three types of vegetation and provides a more realistic yet still conservative representation of potential visibility (buildings and structures are not accounted for). This map represents the most reasonable approach to potential visibility, not Appendix 2.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-63: Please explain with specificity why, in the visual simulations in SW-DR-2 App-4, the stated percentage of possible view is measured against a 180 degree range of vision, when the ordinary horizontal degree range of human vision is considerably less than 180 degrees?

RESPONSE:

See footnote 3 at the bottom of Appendix 4 of Exhibit SW-DR-2. Additionally, Foundations for Visual Project Analysis, which is referenced in footnote 3, also states "The location of our eyes within the skull provides a unique geometrical configuration for the stimulus inputs. Each eye has a field of vision of approximately 166 degrees (head stationary, eye moving). The skull position creates a central area of 124 degrees where the images overlap. This is called the binocular field. It is of particular importance due to the stereo nature of depth perception which occurs in this region. Within the binocular field is a narrow region of highest acuity, the foveal (macular) field. On either side is a monocular field of 42 degrees, containing inputs from only one eye. These are commonly referred to as peripheral vision areas. The total resultant cone of vision is 208 degrees." Thus, 180 degrees is conservative, not considerably less.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-64: State with particularity what make and model of wind turbine was used in the creation of the photo simulations in SW-DR-2 Appendices 4 through 10, as well as the rotor height and blade length presumptions for each.

RESPONSE:

A specific turbine manufacturer and model have not been selected and was not finally selected when Landworks performed its analysis. The turbine dimensions used in the simulations are provided under the heading "Simulation Information on the first page of each visual simulation, which says: Hub height: 315' (96 m), Rotor diameter: 338' (103 m), and Overall turbine height: 484' (147.5 m).

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-65: State whether or not the Prefiled Testimony and Exhibits of Ryan Darlow comprise the complete statement of Mr. Darlow's opinions regarding the shadow flicker analysis of this Project, as well as the complete facts and data considered by Mr. Darlow in forming his opinions regarding the shadow flicker analysis of this Project. If your answer to this inquiry is negative, identify and produce any and all additional opinions, facts and data not included in the Prefiled Testimony and Exhibits of Ryan Darlow which comprise the complete statement of his opinions and the complete facts and data relied upon by him.

RESPONSE:

Yes, at this time. Mr. Darlow may form other opinions in response to prefiled testimony of other parties in this proceeding.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-67: Please describe with particularity Mr. Darlow's skills, qualifications and credentials regarding shadow flicker analysis, including in your response any and all courses or trainings taken by Mr. Darlow regarding shadow flicker analysis and any and all peer-reviewed publications by Mr. Darlow pertaining to shadow flicker analysis.

RESPONSE:

Please refer to Mr. Darlow's resume offered as SW-RD-1. In addition, Mr. Darlow holds basic and advanced certifications for WindPRO from EAPC/EMD (North American retailer of WindPRO/Maker of WindPRO), the software Mr. Darlow used to model shadow flicker.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-68: Identify each and every other legal proceeding in which Mr. Darlow has been recognized by any tribunal as an expert witness in regards to

RESPONSE:

None.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-69: Shadow Flicker analysis by providing the case title and docket number of such case and either a link to the location of Mr. Darlow's testimony if online, or produce any and all such testimony if such is not online.

RESPONSE:

Objection to the request on grounds that is an incomplete sentence and is overly vague.

Notwithstanding and without waiver of the objection, if the request is asking to provide information about Mr. Darlow's testimony in other legal proceedings, please see the response to Question 68.

Response provided by: Ryan Darlow, VERA

Objection by counsel.

Q. LANG:PETITIONER 1-71: Identify any and all documents produced in the course of performing the shadow flicker computer modeling analysis referenced on p. 4 A7 of Mr. Darlow's testimony, including but not limited to animations, computer/software/data files including both input and output data files, reports, and illustrations.

RESPONSE:

Objection to the request on grounds that it seeks confidential, proprietary and trade secret information whose public disclosure would harm the legal and financial interests of the consulting firm that prepared the report for Swanton Wind.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Mr. Darlow used the following facts and assumptions when preparing the shadow flicker analysis: turbine location; E911 addresses points; landscape geo-referenced polygons of forested areas; and hours of turbine operation. Output from the modeling is provided in Attachment Lang 1-71.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-73: Identify and produce any and all modeling results for Shadow Flicker for the Lang residence. If the modeling results can not be disaggregated in such a way as to make the modeling results for the Lang residence independently produceable, please explain the potential disaggregation parameters for the data produced in response to Questions 1-71 above.

RESPONSE:

The estimated annual cumulative shadow flicker hours calculated at the Lang property can be extracted from the information provided in Attachment Lang 1-71.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-74: Identify and produce any and all modeling results for Shadow Flicker for Rocky Ridge Road. If the modeling results can not be disaggregated in such a way as to make the modeling results for Rocky Ridge Road independently produceable, please explain the potential disaggregation parameters for the data produced in response to Questions 1-71 above.

RESPONSE:

No such modeling results exist. Isolines of shadow flicker out to 2000 meters (containing Rocky Ridge Road) can be found in Exhibit SW-RD-2.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-75: Identify and produce any and all modeling results for Shadow Flicker on Route 105. If the modeling results can not be disaggregated in such a way as to make the modeling results for Route 105 independently produceable, please explain the potential disaggregation parameters for the data produced in response to Questions 1-71 above.

RESPONSE:

No such modeling results exist. Isolines of shadow flicker out to 2000 meters (containing Route 105) can be found in Exhibit SW-RD-2.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-76: Produce the entirety of the documentation of the two WindPRO scenarios modeled as referenced at pages 4-5 of Ryan Darlow's prefiled testimony -- that is, the 'bare earth' analysis and the second so-called 'expected' analysis.

RESPONSE:

Objection to the request on grounds that it is overly vague and broad by not specifying what "the entirety of the documentation" means and failing to provide a time period or reasonable scope.

Notwithstanding and without waiver of the objection, please see Attachment Lang 1-71.

Response provided by: Ryan Darlow, VERA

Objection by counsel.

Q. LANG:PETITIONER 1-77: The prefiled testimony of Ryan Darlow at p. 3 lnes 11-15 A6 states, "The impacts of shadow flicker are important considerations when designing a wind farm. A cumulative duration of less than 30 hours per year for shadow flicker cast upon a residence has been found to be acceptabel and to have no adverse impact to neighboring properties or adjacent land uses in New England jurisdictions that have considered the issue." In regards to this statement, please:

A) Identify and produce any and all documentation, communications or contents of oral communications upon which Mr. Darlow relied on in any part to establish the parameter of 30 hours per year;

B) Identify and produce any and all documentation, communications or contents of oral communications upon which Mr. Darlow relied in any part to determine that 30 hours per year 'has been found to be acceptable and to have no adverse impact';

C) Identify each and every New England jurisdiction that has 'considered the issue' as referenced in this statement of Mr. Darlow's testimony.

RESPONSE:

Please see Attachment Lang 1-77 (identical to Attachment DPS 1-28).

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-78: Please state whether shadow flicker from the moon was considered, analyzed and/or modeled in your shadow flicker analysis of this proposed Project. If not, please state why not. If so, please identify and produce all documents relative to such moon shadow flicker analysis.

RESPONSE:

No, because the moon is not a source of light.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-80: State with specificity how many hours of shadow flicker the home of Christine and Dustin Lang would experience under the "bare earth" analysis and under the "expected" analysis.

RESPONSE:

Please see the response to Question 73 and Attachment Lang 1-71.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-81: Exhibit SW-RD-2 at p. 2 states that the wind turbine options being modeled for the Swanton Wind Project use three-bladed rotors, 109 meters in diameter, with rotational speeds of up to 14 rpm. A footnote to this point indicates that produces less than one flicker per second. In regards to this analysis,
please:

A) Identify the make and model of turbine utilized for this analysis;

B) state whether the accumulated, or combined, flicker for up to 7 turbines turning at the same time considered in this frequency calculation; and,

C) identify any and all properties identified by your computer modeling within 2000 meters of the Project, that would experience shadow flicker generated from more than one turbine at any point in time during any day of the year.

RESPONSE:

A. A wind turbine with a hub height of 90 meters and a rotor diameter of 109 meters as stated Exhibit SW-RD-2. Please see Attachment Lang 1-71.

B. As stated in the report each wind turbine operates at up to 14 rpm. Shadow Flicker calculations were completed assuming 7 wind turbines.

C. Please refer to Attachment Lang 1-71 and Attachment DPS 1-55 (made available to all parties on March 14, 2017).

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-82: Exhibit SW-RD-2 page 2, in the last row on in the grid, references Joint wind speed and direction frequency distribution data. Measurement Station 3745 wind data collected over the period January 2012 – June 2015. Identify Measurement Station 3745 by description and location, including in your response specifically the relationship of Measurement Station 3745 to the Met Tower which was previously located on the property. Produce all documents and data produced by Measurement Station 3745.

REPSONSE:

Objection to the request on grounds that the request seeks confidential, proprietary, and trade secret information whose public disclosure will harm Swanton Wind's legal and financial interests. Further objection on grounds that the request is not reasonably calculated to lead to the discovery of admissible evidence.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

The weather data used for the shadow flicker study are provided with the results in Attachment Lang 1-71.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-143: The prefiled testimony of Richard W. Heaps at p. 4, lines 17-18 A6, state, "I examined economic studies on the impacts on property values from projects like this one." Identify and produce all such studies as referenced, and further identify which if any of these studies includes data from Vermont.

RESPONSE:

The four studies listed on page 11 of Mr. Heaps's report (Exhibit SW-RWH-2) are the most relevant to the impact of wind turbines on property values. They are not based on Vermont's limited history of hosting wind turbines.

Please see Attachment Lang 1-143 (identical to Attachment DPS 1-45).

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-145: The prefiled testimony of Richard W. Heaps at p. 3 line 19 states that the Project will result in $177,000 per year in additional tax revenue; Exhibit SW-RWH-2 at p. 2 states that the Project will result in annual revenues of $175,000 to the state. Please explain with specificity the discrepancy between these two figures, and identify and produce all documents supporting your response and this portion of testimony.

RESPONSE:

The $177,000 figure is correct. The $175,000 was just rounded off for simplicity of presentation.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-146: Please explain how Mr. Heaps has accounted for potential loss of state revenues due to decreased property sales and decreased cross-border commerce and second home occupation, including jobs lost as result?

RESPONSE:

Mr. Heaps does not believe there will be any measurable loss of such revenues.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-147: Please describe in detail how the economic analysis model used to develop Mr. Heaps' testimony considered each of the following elements, and produce any and all documents supporting your responses:

A) revenues earned by out of state firms;
B) international cross-border commerce; and
C) the second home economy of the region.

RESPONSE:

A. The Redyn model does include in its estimates some impact from revenues earned by out-of-state firms. The impact in Mr. Heaps's judgement is quite small. He did not include the direct spending with out-of-state firms to minimize this impact.

B. Mr. Heaps does not see a basis to conclude there would be a measurable impact on cross-border commerce.

C. Mr. Heaps does not see a basis to conclude there would be a measurable impact on the second home economy of the region.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-149: Please state with particularity the public and private costs considered by Mr. Heaps in reaching his determination that the Project would result in net economic benefit to the State.

RESPONSE:

Mr. Heaps concluded there would be no measurable impacts on tourism or property values associated with the project.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-153: Please describe with particularity how deep below present grade the following components of the project would be after construction:

A) the lowest extreme limit of the turbine towers or their supporting infrastructure or armature elements;

B) the concrete pads to be installed at each turbine site; and,

C) any guy line anchors.

RESPONSE:

A. No geotechnical work has been performed to date, therefore, no foundation design work has commenced and the lowest extreme limit of the turbine towers, their supporting infrastructure, or armature elements is not known at this time.

B. The dimensions of the concrete pads to be installed at each turbine site are not known at this time.

C. The location type and size of any guy line anchors that would be needed are not known at this time.

Response provided by: Ian A. Jewkes, Krebs & Lansing

Q. LANG:PETITIONER 1-156: State whether you would be willing to pay for well, spring and foundation inspections before and after construction.

RESPONSE:

Swanton Wind is willing to pay for well and foundation inspections within a typical and reasonable distance from construction activities before and after construction. Swanton Wind would engage a qualified firm to perform the inspections and advise on an appropriate distance for such inspections. In addition, Swanton Wind is willing to pay for a qualified firm to perform a pre- and post-construction inspection of the Langs' well and foundation.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-158: Please state whether you have performed any radon testing relative to the Project parcels.

RESPONSE:

No.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-159: Identify the person or entity which owns Rocky Ridge Road, and produce any and all documents supporting your answer.

RESPONSE:

Rocky Ridge Road is owned by the homeowner's association.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-160: Admit that you use Rocky Ridge Road to access a camp built on the Project parcel which is the subject of a zoning enforcement action by the Town of Swanton.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Admitted that Travis Belisle can access a camp built on the project parcel via Rocky Ridge Road. Denied that the camp is the subject of a zoning enforcement action by the Town of Swanton. The facts are as follows:

In 2015, someone entered Mr. Belisle's property without Mr. Belisle's consent and, also without Mr. Belisle's consent, took photographs of a camp that preexisted Mr. Belisle's ownership of the property and before the Town of Swanton adopted zoning regulations in 2001.

On September 21, 2015, Christine Lang emailed the picture of the camp to the Swanton Zoning Administrator and stated in her email that the camp had "been there as long as we have lived here. (July 2011)."

By letter dated October 20, 2015, the Swanton Zoning Administrator informed Mr. Belisle that he "may be in violation" of the town's zoning regulations by building the camp without a permit.

Subsequently, in November 2015, Ashley Belisle hand delivered a letter to the Zoning Administrator's office explaining that the camp preexisted both Mr. Belisle's ownership and the town's zoning regulations.

On December 3, 2015, the Swanton Zoning Administrator informed Ms. Belisle that she had received Ms. Belisle's letter and that Ms. Belisle was "all set." A letter from the Zoning Administrator memorializing her conclusion was issued on December 29, 2015. See Attachment Lang 1-160 for the documents referred to in this response.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-161: Admit that if a CPG is granted for this Project, that you would use Rocky Ridge Road to access the portion of the Project that is located on real property not owned by you.

RESPONSE:

Denied.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-162: Identify and produce all documents relative to any and all Town or State agency proceedings for violations of ordinances, bylaws, statutes or regulations relative to the construction, existence or maintenance of Rocky Ridge Road.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence. Further objection on grounds that it is overly broad, and to the extent that the request seeks documents that are protected by the attorney-client and work product privileges.

Notwithstanding and without waiver of the objections, Swanton Wind responds:

Swanton Wind does not possess or control any documents that are responsive to the request, and is not aware of any Town or State agency proceedings for violations of ordinances, bylaws, statutes or regulations relative to the construction, existence or maintenance of Rocky Ridge Road.

Respondent: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Q. LANG:PETITIONER 1-163: Admit that Rocky Ridge Road was used as the access for installation of the met tower referenced as the source of site condition data in Exhibit SW-DF-2 at p. 11.

RESPONSE:

Objection to the request on grounds that the request it is not relevant to any issue that the Public Service Board must decide pursuant to the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding, and is not reasonably calculated to lead to the discovery of admissible evidence.

Objection by counsel.

Q. LANG:PETITIONER 1-164: Describe with particularity the engineering specifications to which Rocky Ridge Road is constructed, including in your response the depth and nature of the road bed, the nature and extent of any culverts or drainage system including stormwater diversion and retention, the nature of the road surface, and its weight-bearing capabilities. Produce any and all documents that support your response.

RESPONSE:

Rocky Ridge Road was built to A76 Vermont State Standards. Please see Attachment Lang 1-164.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-165: Describe with particularity any alterations to the factors described in your response to Question 1-164 above which you would undertake in regards to the construction of the Project. Produce any and all documents that support your response.

RESPONSE:

Objection to the request on grounds that it is overly vague.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

If the question is asking whether Rocky Ridge Road would be need to be altered to accommodate construction and/or delivery vehicles and if so, how it would be altered, the answer is that Swanton Wind does not expect that alterations to the road will be needed.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-166: Please identify each septic, water, or utility line which underlies or passes under Rocky Ridge Road. Produce any and all documents that support your response.

RESPONSE:

There are septic lines that run under Rocky Ridge Road to serve residences at 10, 12, and 13 Rocky Ridge Road. Please see Attachment Lang 1-166.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-167: Please identify and produce your maintenance plan for Rocky Ridge Road for the period of construction, and for the period of operation, of the Project.

RESPONSE:

Swanton Wind has not prepared a maintenance plan for Rocky Ridge Road for the period of construction or for the period of the Project's operation. Swanton Wind has committed to repairing damage to Rocky Ridge Road that is caused by the Project's construction, and will contribute $5,000 per year to the Rocky Ridge Homeowners Association that can be used by the association for road maintenance (and snow plowing). Please see Mr. Belisle's prefiled testimony at pages 9-10.

Response provided by: Travis Belisle, Swanton Wind LLC

Dated at Castleton, Vermont this 16th day of March, 2017.

SWANTON WIND LLC

By:_____

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Its Attorneys

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8816

Petition of Swanton Wind LLC for a certificate of	)
public good, pursuant to 30 V.S.A. § 248, for the	)
construction of an up to 20 MW wind-powered	)
powered by up to 7 wind turbine located along	)
Rocky Ridge in Swanton, Vermont	)

SWANTON WIND'S RESPONSES TO QUESTIONS 27, 30, 32, 33, 55, 101, 102-108, 111, 114, 115-119, 122-128, 131-139, 141-142, 144, 148, 150-152, 168, 169, AND 170 OF CHRISTINE AND DUSTIN LANG'S FIRST SET OF INFORMATION REQUESTS

Q. LANG:PETITIONER 1-27: The prefiled testimony of John Zimmerman at p. 3, line 14, A6, references "The town and regional plans...". Please identify with particularity, by title and date of adoption, the town plan(s) referenced in this phrase.

RESPONSE:

Please refer to Swanton Wind's response to Question 4 of the Towns of Swanton and Fairfield's First Set of Information Requests, made available to the parties on March 16, 2017 at the following weblink:

https://app.box.com/v/SWResponses-SwantonFairfield

Please also refer to Exhibit SW-DR-2, App 11 at PDF page 102 for the regional plan referenced in Mr. Zimmerman's testimony.

Response provided by: John Zimmerman, VERA

Q. LANG:PETITIONER 1-30: State whether or not the Prefiled Testimony and Exhibits of David Raphael comprise the complete statement of Mr. Raphael's opinions regarding the aesthetic analysis of this Project, as well as the complete facts and data considered by Mr. Raphael in forming his opinions regarding the aesthetic analysis of this Project. If your answer to this inquiry is negative, identify and produce any and all additional opinions, facts and data not included in the Prefiled Testimony and Exhibits of David Raphael which comprise the complete statement of his opinions and the complete facts and data relied upon by him.

RESPONSE:

Yes, at this time. Mr. Raphael may form other opinions in response to information presented by the other parties in their testimony.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-32: Describe in detail the view of the Project from the home of Christine and Dustin Lang.

RESPONSE:

Landworks did not visit the Langs' home as part of its analysis because the aesthetic analysis is not conducted from each and every private home with a potential view of the project. Therefore, Swanton Wind does not have the requested information.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-33: Describe in detail the view of the Project from Rocky Ridge Road.

RESPONSE:

Mr. Raphael visited and traveled the road as part of the overall field work for the project, but did not conduct a specific view analysis from the road.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-55: Please describe in detail what Mr. Raphael means by the phrase "scenic beauty of the area" in his prefiled testimony at p. 4 line 18 A6. Include in your response a description of the landscape elements that comprise such scenic beauty.

RESPONSE:

The phrase "scenic beauty of the area" is actually taken directly from the wording in the 2nd step of the Quechee Test, derived from the original "Quechee Decision". The Quechee Test, or analysis has been adopted in both Act 250 and Section 248 review. "Aesthetics and scenic beauty" are part of the standard phrase and question that an aesthetics review must address – it is not a phrase or concept that originated with Mr. Raphael.

A description of the character of the area including landscape elements was already prepared in response to the first step of the Quechee Analysis. This extensive narrative can be found beginning on page 11 of Exhibit SW-DR-2. See also the answer to Question 58.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-101: The prefiled testimony of Kenneth Kaliski at p. 2 states, "I am familiar with the Board's orders and its new temporary rule relative to sound standards for various transmission and generation projects, including wind projects like Swanton Wind." State whether the Public Service Board Temporary Rule on Sound Levels from Wind Generation dated 28 July 2016 was considered and applied by you in making your sound analysis for the Swanton Wind Project.

RESPONSE:

Yes. Please see Exhibit SW-KHK-2, particularly Sections 2.2 and 8, and the Prefiled Testimony of Kenneth H. Kaliski at 5-7.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-102: State whether the sound analysis performed by Mr. Kaliski/RSG regarding the Swanton Wind project considered the noise generated by iced blades. If so, please identify and produce all documents, facts or data pertaining to noise produced by iced blades that was utilized in this analysis.

RESPONSE:

No. Please see Section 5 of Exhibit SW-KHK-2 for a description of the sound propagation modeling RSG performed.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-103: Exhibit SW-KHK-2 p. 47 uses a 15dBA attenuation from building exterior to interior. Describe the basis for utilizing this attention rate, and produce all documents, facts or data support said basis.

RESPONSE:

Objection to the request for "all documents, facts or data support said basis" on grounds that it is overly broad and unduly burdensome.

Notwithstanding and without waiver of the objection, please refer to Exhibit SW-KHK-2 at Sections 2.3 and 2.5.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-104: Admit that wind turbines get noisier as they age.

RESPONSE:

Denied.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-105: Admit that the choice of manufacture make and model of turbine ultimately selected for the project will affect the sound levels generated by the project.

RESPONSE:

Admitted. However, irrespective of the wind turbine ultimately selected, the Project will be required to meet the sound standards established by the Board's Temporary Rule on Sound Levels from Wind Generation dated 28 July 2016.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-106: Admit that the number of wind turbines ultimately erected as components of the project will affect the sound levels generated by the project, in so much as fewer than 7 turbines would produce proportionately less noise than 7 turbines.

RESPONSE:

Denied. The sound level depends on the turbine selected and does not have a linear relationship with respect to a quantity of wind turbines.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-107: Identify and produce all documents, communications and contents of oral communications between Kenneth Kaliski or any other agent or employee of RSG with any agent or employee of VERA Renewables relative to the Project.

RESPONSE:

Objection to the request on grounds that it seeks trial preparation materials not within the scope of discovery and is overly broad and not reasonably calculated to lead to the discovery of admissible evidence.

Objection by counsel.

Q. LANG:PETITIONER 1-108: Please produce all modeling data, documents and files (electronic or otherwise) associated with the sound propagation modeling relative to the Goldwind GW109 turbine.

RESPONSE:

Objection on grounds that the request is overly broad and unduly vague by not limiting the request to the sound propagation modeling performed for Swanton Wind in this case. Further objection on grounds that the material requested is confidential and proprietary to the wind turbine manufacturer and Swanton Wind's access to it is subject to an enforceable non-disclosure agreement. The information will be provided in accordance with the provisions of the non-disclosure agreement and under the protection of a protective order so that the confidentiality of the manufacturer's proprietary trade secret information can be maintained.

Objection by counsel.

Q. LANG:PETITIONER 1-111: In regards to the prefiled testimony of Kenneth Kaliski p. 4 lines 13-16, please explain with particularity what time of day, wind speed, wind direction, and other SCADA parameters would be used to determine when the NRO mode would be utilized on Turbine #5.

RESPONSE:

NRO timing has not been planned to the detail that is requested in this question. The sound propagation model assumes that all receivers are downwind per ISO 9613-2, but the closest receivers to Turbine #5 are to the west-northwest, so it is anticipated that an NRO mode would only be used when winds are generally from the southeast through east-northeast and when the turbine is operating at wind speeds that cause sound emissions within 2 dB of its maximum guaranteed sound power level of 106.5 dBA.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-114: Admit that turbine noise inside a house would be higher with the windows open than if they were closed.

RESPONSE:

Admitted in part and denied in part. If there is sound from a wind turbine present outside of a house, it is likely that the overall sound levels attributable to the wind turbines would be higher inside if the windows are open rather than if they were closed. This may not always be the case when evaluating individual frequencies of the turbine sound spectrum.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-115: Admit that exterior to interior sound attenuation may be substantially diminished when windows are open.

RESPONSE:

Admitted that the exterior to interior sound attenuation is lower when windows are open than when they are closed.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-116: Admit that the noise level in a home that had its windows open could be almost as loud as the noise experienced directly outside of the home.

RESPONSE:

Objection to the request on grounds that it is overly vague and ambiguous because it is not clear what is meant by "almost as loud," and insufficient information about the hypothetical situation is provided with the question so as to formulate a responsive answer.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Admitted in part and denied in part. It depends on the circumstances. There is insufficient information in the question (e.g. the sound level outside the home, the interior background sound levels, the location and orientation of the outside source, the size of the windows, etc.). Regardless of the specifics of the hypothetical situation, it is possible for the exterior to interior sound attenuation to range considerably, depending on the type and quality of construction, whether windows are closed, partially open, or fully open, and a number of other factors.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Objection by counsel.

Q. LANG:PETITIONER 1-117: Prefiled testimony of Kenneth Kaliski at page 3 indicates that the July 2015 sound monitoring, to record existing background sounds, did not include a sound monitoring location on Pond Rd. directly north of the project site. Why was this location not included in the background sound monitoring?

RESPONSE:

RSG did not select this location due to background traffic on Pond Road, and its proximity to an active aggregate extraction enterprise (i.e., an active quarry). Rather than monitor on Pond Road, the Dorian Drive Monitor was in the same general area, and setback further from Pond Road (550 feet to the south) to avoid immediate exposure to traffic noise on Pond Road.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-118: The prefiled testimony of Kenneth Kaliski on page 6 references a study done by RSG the Massachusetts Clean Energy Center and Massachusetts Department of Environmental Protection. (Footnote 1). Please identify the source of funding for this study, and either provide a link to the study if published online, or produce a copy of the study.

RESPONSE:

The study can be found here:

http://files.masscec.com/research/wind/MassCECWindTurbinesAcousticsStudy.pdf

The study was funded by the Massachusetts Clean Energy Center and co-managed with the Massachusetts Department of Environmental Protection.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-119: The prefiled testimony of Kenneth Kaliski on page 6 references consideration of topographical and geographical features unique to the facility including bodies of water. Please describe in detail how your sound analysis modeling and results would have differed had Fairfield Pond been considered as a water body rather than as the assumptive non-pourous hard surface.

RESPONSE:

The analysis would not have differed. In outdoor sound propagation, small bodies of water are considered a non-porous, hard surface and are modeled with a ground factor of zero (G=0). RSG did that in this case except that it conservatively modeled all ground throughout the project area with a ground factor of zero.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-122: The prefiled testimony of Kenneth Kaliski at page 9 lines 4-7 states: "…construction noise will not create an undue adverse impact as it will be temporary, is typically limited to day time hours, and will be focused in an area approximately one- third (1/3) of a mile from the closest residence". Please explain with particularity whether this statement included analysis of construction noise, including traffic and equipment, along Rocky Ridge Road, and at each of the residences immediately adjacent to that road and otherwise within 1/3 of a mile of it.

RESPONSE:

The construction noise analysis conducted for Exhibit SW-KHK-2, looked at maximum sound levels from typical types of construction equipment at 50 feet and 1,800 feet, the approximate distance between the turbines and the closest residence to the east. It did not include a specific analysis of sound from passing traffic and equipment on Rocky Ridge Road nor at residences immediately adjacent to Rocky Ridge Road.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-123: The prefiled testimony of Kenneth Kaliski at p. 4 line 14 states that "noise reduced operation (NRO) of 2 dB on turbine 5". Please explain with particularity why the NRO is expressed in "dB" rather than "dBA" ?

RESPONSE:

When talking about differences in overall sound level, it is technically correct to express the difference in terms of dB.

Using more precise language, the NRO mode for Turbine 5 was modeled to reduce its A-weighted sound power level by 2 dB.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-124: Regarding Question 4 of your testimony, admit that the statement provided at lines 15- 17 on page 2 is intended as advice for communities that currently have sound levels in excess of 55 dB and not for communities where existing sound levels are less than 40 dB.

RESPONSE:

Objection to the request on grounds that it is overly vague and ambiguous by not identifying to which document the request refers other than "your testimony."

Notwithstanding and without waiver of the objection, Swanton Wind responds that if the request is referring to the Prefiled Testimony of Kenneth H. Kaliski, the answer is denied. The referenced page and lines in Mr. Kaliski's testimony describe the work completed for Exhibit SW-KHK-2. Mr. Kaliski's testimony does not offer advice to communities, it addresses the Project's potential sound impacts and whether those impacts are unduly adverse.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-125: Exhibit SW-KHK-2 at p. 9 references the Town of Swanton noise standard. Please explain with particularity whether or not the proposed Project falls within the parameters prescribed by this local noise standard.

RESPONSE:

As discussed in Exhibit SW-KHK-2, the frequency ranges listed in the Town of Swanton noise standard do not conform to modern standardized definitions of octave band frequency ranges. Thus, RSG's modeling, which is based on current international standards, does not evaluate the total sound level within the frequency bands specified in the Town standard.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-126: Exhibit SW-KHK-2 at p. 11 references the 1999WHO Guidelines for Community Sound and the 2009 WHO Night Noise Guidelines for Europe. Admit that WHO is in the process of drafting Environmental Noise Guidelines for the European Region which will differ substantively and in methodology from these prior WHO guidelines, and which will address, in part, the noise generated by wind turbines.

RESPONSE:

Denied. Swanton Wind and Mr. Kaliski do not have information that would allow an admission of the facts asserted in the request.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-127: Exhibit SW-KHK-2 at page 13 in the fifth bullet-point para commencing "From Section 5.5.3.1: Considering geometric spreading only", the last sentence states: "Different arrangements of multiple wind turbines (e.g., in a line along a ridge versus in a cluster) would result in different noise levels; however, the resultant noise levels would not vary by more than 10 dB." Please explain with particularity how noise levels from the 'fish hook' clustering configuration of the present Project proposal would differ if the 7 proposed turbines were instead arrayed linearly along the ridge, and also how the noise levels would differ if the 7 proposed turbines were clustered more tightly together. Would either of these alternate configurations reduce the noise levels, or cause the 45 dBA level to be exceeded?

RESPONSE:

RSG has not performed sound modeling for Swanton Wind for the hypothetical alternate array configurations described in this question.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-128: Exhibit SW-KHK-2 at page 14 states, "These statements from the BLM's Wind Energy Development PEIS do not represent a regulatory standard itself, but they do provide some insight on how one federal agency is approaching sound generated from wind turbine projects. This project is designed to be consistent with the BLM guidelines". Describe with particularity the methodology and population density assumptions that the BLM used to establish this regulatory standard?

RESPONSE:

Swanton Wind does not possess the requested information.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-131: Please explain with particularity why you elected to analyze background noise levels based on field monitoring, rather than based on population-density predicated assumptions as developed by the US EPA and WHO?

REPONSE:

Methods that do not use site-specific data do not necessarily represent the specific conditions throughout this Project area. This is best done using on-site monitoring.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-132: Exhibit SW-KHK-2 at p. 18, in regards to monitoring locations descriptions, states, "The Rocky Ridge Rd. monitor was located at 12 Rocky Ridge Road, Swanton, VT". This location is pictured at fig. 4 P. 19 of 112. Please explain with particularity why the monitor was located on the west side of the house, closer to Rte. 105, a noisy thoroughfare?

RESPONSE:

The Rocky Ridge Rd. monitor was placed in an open area away from the residence as to avoid discrete reflections from the vertical façade of the house and to address privacy concerns. The monitor was setback sufficiently from VT 105, approximately 1,500 feet, so that an additional 100 feet to the east would have made an insignificant difference in the measured traffic noise from VT 105. Even so, residences in the Rocky Ridge Road area are regularly exposed to traffic noise from VT 105. It is a legitimate source of background sound which helps to describe the existing character of the area.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-133: Exhibit SW-KHK-2 at p 18 in reference to the Rocky Ridge Road monitoring site, states " The project would be located approximately 585 to 840 meters (1,920 to 2,755 feet) to the southwest and west". Please state with particularity how you derived these measurements. Produce any and all documents, communications or contents of oral communications supporting your response.

RESPONSE:

Distance measurements were made using ArcGIS from the Rocky Ridge Road monitor location to the proposed locations of Turbines 3, 4, and 5, and the range of distances listed were based of the shortest and longest lengths of these measurements.

ARCGIS files are provided electronically in Attachment Lang 1-133.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-134: Exhibit SW-KHK-2 at page 22 states that the "Dorian Drive monitor was located at 130 Dorian Drive, Fairfield, VT". 130 Dorian Drive does not exist. Please describe with specificity the actual location of this referenced monitor.

RESPONSE:

130" Dorian Drive is a typographic error. The address for the Dorian Drive monitor location identified through the VT E911 database is 103 Dorian Drive. The specific location of the monitor is NAD83, UTM Zone 18N, 657415, 4968919.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-135: Admit that ambient sound levels in rural Vermont are on average lower during the winter months than in the summer months.

RESPONSE:

Neither admitted nor denied. Mr. Kaliski has not done a comprehensive comparison of seasonal sound levels throughout rural Vermont for Swanton wind nor is Mr. Kaliski aware of any other published study on this topic. Background sound levels will vary seasonally depending on a number of factors, including ground cover, leaf density, meteorology, and biogenic and anthropogenic activity.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-136: Please identify and produce any and all studies, facts or data reviewed and relied upon by you in regards to the impact of wind turbine projects on home values for residences within 2000 feet -- and only within 2000 feet -- of such projects.

RESPONSE:

Swanton Wind is not aware of any such studies.

Response provided by: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-137: Please identify and produce all documents, communications and contents of oral communications referencing the cost of the Project's interconnection.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue on which the Langs were granted intervention in this proceeding.

Objection by counsel.

Q. LANG:PETITIONER 1-138: Please identify and produce all documents, communications and contents of oral communications referencing the cost of the Project's decommissioning.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue on which the Langs were granted intervention in this proceeding.

Objection by counsel.

Q. LANG:PETITIONER 1-139: State whether or not the Prefiled Testimony and Exhibits of Richard W. Heaps comprise the complete statement of Mr. Heaps' opinions regarding the economic analysis of this Project, as well as the complete facts and data considered by Mr. Heaps in forming his opinions regarding the economic analysis of this Project. If your answer to this inquiry is negative, identify and produce any and all additional opinions, facts and data not included in the Prefiled Testimony and Exhibits of Richard W. Heaps which comprise the complete statement of his opinions and the complete facts and data relied upon by him.

RESPONSE:

Yes, at this time. Mr. Heaps may for additional opinions in response to the testimony and exhibits filed by other parties.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-141: The prefiled testimony of Richards W. Heaps at p. 3, lines 10 through 13, references job creation affiliated with the project. In regards to this testimony segment, please:

A) identify and produce, in regards to the 'up to 99 jobs' attested to be created during the construction phase, all documents supporting this testimony;

B) identify and produce, in regards to the '2 additional jobs' to be created during operation of the Project, all documents supporting this testimony;

C) describe with particularity the nature and duration of the 99 jobs in the construction phase, and the 2 additional jobs in the operations phase, including in your response: whether such jobs are full-time or part-time; whether they are in the nature of employment or contractual; the duration of each job in terms of days, weeks, months or years; and the wages anticipated to be paid for each such job; and,

D) in regards to the assertion that the 99 jobs will generate wages of 4.8 million USD, and the 2 additional jobs will result in wages of 235,000 USD annually, please provide all documents supporting such testimony.

RESPONSE:

A. See Attachment Lang 1-141.

B. See Swanton Wind's response to Question 32 of the Towns of Swanton and Fairfield's First Set of Information Requests (made available to all parties on March 16, 2017).

C. See Attachment Lang 1-141.

D. See Attachment Lang 1-141.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-142: To the extent that the 99 construction jobs identified in your response to Question 1-141 above are contractual, please explain with particularity whether you anticipate such contracts to be let to Vermont firms, or firms from out of state; produce any and all documentation including data you have collected supporting your response.

RESPONSE:

See the table on page 2 of Mr. Heaps's Economic Impact Analysis (Exhibit SW-RWH-2). It identified the spending expected with Vermont vendors. See also Attachment Lang 1-141 and Attachment Lang 1-144.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Q. LANG:PETITIONER 1-144: Please provide the calculations, assumptions, and data used to generate the cost of construction figures upon which your estimates of direct economic impacts is based. Where did you obtain this information?

RESPONSE:

The construction costs used in Mr. Heaps's economic report were provided VERA. Please see Attachment Lang 1-144.

Response provided by: Richard W. Heaps, RWH Economics, Inc.

Q. LANG:PETITIONER 1-148: Please state precisely how the state of Vermont will benefit economically from your estimate of $28.1 million in avoided GHG emissions.

RESPONSE:

The economic benefits of reducing GHG emissions are of benefit to society as a whole, resulting in significant health benefits of cleaner air to the reduction in the rate of global warming and its beneficial effects on the planet and mankind. Swanton Wind has not conducted an analysis that would allow it to state these benefits precisely.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-150: Please describe in detail any cost shifts between the State and developers and between the State and other private landowners and how these have been treated in your analysis.

RESPONSE:

Objection to the request on grounds that it is overly vague and ambiguous and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Mr. Heaps is not aware of any cost shifts.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Objection by counsel.

Q. LANG:PETITIONER 1-151: Please identify and describe with particularity all oil, hydraulic fluid, antifreeze, solvents, cleaners or other fluids that would be located on the Project site A) during construction, and B) during operation, including in your response the quantity and nature of such fluids that would be within each turbine, substation, transformer, converter or any other piece of equipment, as well as the quantity and nature of such fluids that would be stored on-site.

RESPONSE:

Swanton Wind does not possess the requested information because it has not procured the equipment that will be used for the Project or engaged the contractor.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-152: For each fluid identified in your answer to Question 1-151 above, please describe with particularity the monitoring, containment, and fire suppression equipment or methodology to be installed to insure that such fluid does not enter the groundwater system.

RESPONSE:

All fluid stored on site will be stored in accordance with applicable State of Vermont regulations.

Response provided by: Ian A. Jewkes, Krebs & Lansing

Q. LANG:PETITIONER 1-168: Please identify and describe with particularity the number, nature, and anticipated width and weight of trucks and other vehicles or equipment which would traverse Rocky Ridge Road on a daily, weekly or monthly basis during the construction of the Project. Produce any and all documentation that supports your response.

RESPONSE:

Objection to the request on grounds that it is overly broad by not limiting the traffic to that associated with construction of the Project itself.

Notwithstanding and without waiver of the objection, Swanton Wind responds that it has not prepared an analysis of the number, nature, width, and weight of trucks and other vehicles or equipment which would traverse Rocky Ridge Road on a daily, weekly or monthly basis during construction.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-169: Please identify and describe with particularity the number, nature, and anticipated width and weight of trucks and other vehicles or equipment which would traverse Rocky Ridge Road on a daily, weekly or monthly basis during the ongoing operation of the Project. Produce any and all documentation that supports your response.

RESPONSE:

The Project expects infrequent access to the wind turbines by standard light trucks and cars for the purpose of maintenance and public education tours upon request. However, Swanton Wind has not conducted an analysis of the number, nature, width, and weight of trucks and other vehicles or equipment which would traverse Rocky Ridge Road on a daily, weekly or monthly basis during the Project's operation.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-170: Please describe with particularity where the 99 persons identified as working on the Project during construction, and the 2 persons identified as working on the Project during ongoing operation, will park while performing such work, including in your response a detailed description of the preparation and design of any parking area, its location, dimensions, drainage system, nature and quantity of surface material, and any proposed screening for same. Produce any and all documentation that supports your response.

RESPONSE:

Parking for construction will be at the staging area shown on Exhibit SW-IAJ-2 and along the Project access road where necessary during construction. The workers during construction vary as the installation progresses from site clearing to road construction, to wind turbine installation to mechanical and electrical commissioning and thus the number of persons on site will vary as the installation progresses. Parking during operations will be by the turbines or along the access road. Preliminary drawings for constructing the staging area and access road are provided with Exhibit SW-IAJ-2. Final design and specifications have not been completed.

Response provided by: Martha Staskus, VERA

Dated at Castleton, Vermont this 23rd day of March, 2017.

SWANTON WIND LLC

By:_____

Leslie A. Cadwell
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Its Attorneys

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8816

Petition of Swanton Wind LLC for a certificate	)
of public good, pursuant to 30 V.S.A. § 248, for	)
the construction of an up to 20 MW wind-	)
powered powered by up to 7 wind turbines	)
located along Rocky Ridge in Swanton,	)
Vermont	

SWANTON WIND'S RESPONSES TO QUESTIONS 34, 50, 85, 86, 88, 89, 91, 92, 95, 96, 97, 154, 155, AND 157 AND SUPPLMENTAL RESPONSES TO QUESTIONS 10 AND 162 OF CHRISTINE AND DUSTIN LANG'S FIRST SET OF INFORMATION REQUESTS

Q. LANG:PETITIONER 1-34: State with specificity the height of the ridge on which the turbines are proposed to be located, above the grade of Rocky Ridge Road, and the height of the turbine nacelles from the grade of Rocky Ridge Road.

RESPONSE:

Objection to the request on grounds that it is overly vague and ambiguous as the "grade on Rocky Ridge Road" is not defined nor is the point on Rocky Ridge Road from which the grade would be measured.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

The elevation of each wind turbine location can be derived from the site plans (Exhibit SW-IAJ-2). The height of the nacelles for the turbine that will be used for the project is not known at this time. Please see pages 6-7 of Ms. Staskus's testimony.

Response provided by: Martha Staskus, VERA

Objection by counsel.

Q. LANG:PETITIONER 1-50: Please state whether Mr. Raphael has ever testified that a wind turbine electric generation facility project would create an undue adverse aesthetic effect. If so, please identify such project, and produce Mr. Raphael's report and testimony regarding it.

RESPONSE:

Yes, in Mr. Raphael's review and testimony of the wind energy project proposed for Searsburg, VT, as a consultant to the Vermont Department of Public Service. Mr. Raphael concluded that there was the potential, if the project were to go forward as proposed, that the project would result in an undue adverse aesthetic effect. Several other wind energy projects he was consulted on led to him to conclude that moving ahead with the project as proposed would have resulted in an undue adverse effect. Due in part to his conclusions, either the projects didn't continue to the permit stage, or another consultant was hired who could or would come to a different conclusion. See reference for his testimony and report in the answer to Question 51.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-85: State whether GL Garrad Hassan Canada, Inc., is registered as a foreign corporation to do business in the United States generally, and also in Vermont particularly. Produce any and all documentation supporting your response.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue the Public Service Board must decide pursuant to applicable law, 30 V.S.A. § 248 and Board Rule 5.400.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

GL Garrad Hassan Canada, Inc. is a Canadian entity that is affiliated with the American company Garrard Hassan America, Inc. The ice throw analysis for the Swanton Wind project was provided by Garrard Hassan America, Inc., which is referenced on Exhibit SW-DF-2.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-86: The prefiled testimony of Dariush Faghani at p. 4 lines 1-3 A6 states, "We considered two candidate wind turbines based on discussions with the project developer; namely, one with a hub height of 90 m and a rotor diameter of 121 m, and one with a hub height or 96 m with a rotor diameter of 103 m." With regards to this statement, please:

A) Identify the individual or entity referenced here as the 'project developer';

B) Identify and produce all documentation, communications and contents of oral communications between Dariush Faghani and you as well as between Dariush Faghani and the 'project developer' as identified in subpart A if said 'project developer' is a person or entity other than you;

C) Identify by manufacturer, make and model the two candidate wind turbines referenced.

RESPONSE:

A. The entity referenced is Vermont Environmental Research Associates, Inc. (VERA) on behalf of Swanton Wind LLC.

B. Objection to the request on grounds that it is overly broad as it does not provide a subject matter or time period for the information it seeks. Further objection to the extent that the request seeks trial preparation materials that are not within the scope of discovery.

   Notwithstanding and without waiver of the objection, please see Attachment Lang 1-86.

C. Two typical candidates were considered; the GE 3.2-103 and the Goldwind 121/2500. The intent was to define a reasonable specifications range based on existing wind turbine models. The results of the report are valid for turbine models within the specifications range evaluated in the report. Other wind turbine models, with specifications marginally different, would yield results in the same order of magnitude.

Response provided by: Shant Dokouzian, DNV GL

Objection by counsel.

Q. LANG:PETITIONER 1-88: Describe with particularity the difference that a different height hub and/or different length rotor would make in your ice throw analysis. Would, for example, a taller height hub or longer length rotor result in ice thrown to a farther distance?

RESPONSE:

In order to describe with particularity the difference that a different hub height and/or different length rotor would make in the ice throw analysis, more information is needed, including the alternative hub height and/or rotor length in question. As a general matter, a taller hub height or longer rotor can, but will not necessarily, result in a further throw distance. Rotor rotational speed will also impact the throw distance. For example, a wind turbine with a longer rotor, but lower rotational speed, can result in shorter throw distances. For modern multi-MW wind turbines, the ice throw distance is typically in the same range, i.e. the distances would not double or triple, for example.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-89: Admit that the Monte Carlo simulation run is a statistical calculation of mathematical probability based on input assumption data, rather than a computer simulation.

RESPONSE:

Admitted in part and denied in part. Admitted that the "Monte Carlo simulation" is a statistical calculation. This calculation is part of the overall model developed by DNV GL to estimate ice throw. Denied that this was used "rather than a computer simulation." It is incorrect to state that one was used as opposed to the other. A computer was used to run or "simulate" the model, hence the calculations. Otherwise stated, a computer simulation is the actual running of the model.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-91: Admit that the Monte Carlo probability calculation results illustrated at Exhibit Sw-CF-2 p. 16 were based on assumptions of flat terrain, and did not include assumption adjustments based on actual topography.

RESPONSE:

Denied. The results presented in the report (which is Exhibit SW-DF-2, not Exhibit Sw-*CF*-2) include the effect of terrain elevation based on the site topography. This is indicated in the report; see e.g. Exhibit SW-DF-2 at 12.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-92: Exhibit SW-DF-2 at p. 14 states that the "ice fragment mass is assumed to be 1 kg." Identify and produce any and all documents, reports, data, or other informational resources upon which Dariush Faghani based this assumption.

RESPONSE:

A fragment of 1 kg is deemed a reasonably large size, which can be thrown at relatively further distances from a wind turbine. Larger fragments can detach from rotor blades, but in general such fragments typically break into smaller pieces before reaching the ground, or would land at shorter distances due to increased drag. Such a mass has been assumed as reasonable in various publications. See Exhibit SW-DF-2, Section 7 of the report, References 4, 5, 6 and 9, which are produced as Attachment Lang 1-92 Reference 4, 1-92 Reference 5, 1-92 Reference 6, and 1-92 Reference 9.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-95: Exhibit SW-DF-2 at page 8 identifies as an authoritative resources regarding turbine tower collapse and blade failure the 2005 Bream et al., Handbook, aka the "Dutch Handbook", updated in 2014 by Faasen et al., in Dutch only. Please:

A) State whether Dr. Faghani is fluent in reading Dutch, and if not, please identify any person who translated the Dutch Handbook for him;

B) Produce a copy of the Dutch Handbook in the version relied on by M. Faghani in the preparation of his report on this Project, including any updates or appendices to same; and,

C) Identify any and all American jurisdictions that have adopted the "Dutch Handbook" as standards, or accepted it as authoritative when offered into evidence, including in your response the identification of all such cases or petitions by name, jurisdiction and docket number.

RESPONSE:

A. No, Dariush Faghani is not fluent in reading Dutch. Please see B. below.

B. The Dutch 2005 and 2014 copies were relied upon. See Attachment Lang 1-95B DH 2005 and Attachment Lang 1-95B DH 2014. The 2005 copy was referenced and partially translated by the California Wind Energy Collaborative in 2006, under the PIER Program managed by the California Energy Commission; a copy which was relied upon as well. See Attachment Lang 1-95B CWEC. Sections of interest from the Dutch versions were freely translated through automatic online translators when necessary. Finally, queries were discussed as needed with DNV GL colleagues responsible for producing the report in the Netherlands office.

C. Shant Dokouzian is not aware of American jurisdictions adopting the Dutch Handbook, aside from the California Wind Energy Collaborative referencing the handbook and summarizing its key findings. I would characterize the handbook as a comprehensive study that can inform regulators.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-96: Admit that your statement at Exhibit SW-DF-2 p. 9 that the 5-year rolling average of turbine failure is over .0002 turbines per year means that on average more than 2 of every 10,000 turbines fail per year. Further admit that there are over 50,000 industrial wind turbines in the United States according to the American Wind Energy Association. Further admit that this means over 10 turbines per year fail in the United States.

RESPONSE:

Admitted that the statement at Exhibit SW-DF-2 p. 9 that the 5-year rolling average of turbine failure is over .0002 turbines per year means that on average more than 2 of every 10,000 turbines fail per year and that there are over 50,000 industrial wind turbines in the United States. Denied that "this means over 10 turbines per year fail in the United States." It would be more accurate to say that, according to recent failure rates in the Dutch Handbook, approximately 10 wind turbines in the USA, on average, would experience a blade failure per year. However, the probability of a member of the public being at the exact location of where a blade part hits the ground and at the exact time it hits the ground, must be considered in risk assessments. As such, with over 50,000 wind turbines operating in the USA, and over 300,000 operating worldwide, there has been no known injury to the general public from failed turbine blades.

Response provided by: Shant Dokouzian, DNV GL

Q. LANG:PETITIONER 1-97: State whether you will relocate the proposed wind turbine locations 1640.5 feet (500 m) from neighboring property boundaries in light of the Dutch Handbook model indication of a maximum distance of 500m for throw-distance for pieces of blade in failure, as referenced at Exhibit SW-DF-2 p. 9.

RESPONSE:

No, Swanton Wind does not plan to relocate the proposed wind turbines based on the results of the Dutch Handbook model.

The maximum throw distance of 500m for a blade part is a conservative distance irrespective of a specific site. It is probable that the maximum non-negligible distance at the Swanton Wind site is lower. As well, at relatively far throw distances, the probability is well below 1 in 1 million years, which is considered negligible and less probable than a lightning strike.

Response provided by: Shant Dokouzian, DNV GL
Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-154: Please describe with specificity the impact of the blasting and drilling relative to Project construction on the fractured bedrock underlying the site, including in your response the impact such activity will have in terms of diverting underground water courses or altering the water table.

RESPONSE:

Please refer to Swanton Wind's response to Question 2 of the Agency of Natural Resources First Set of Information Requests and Attachment ANR:SW 1-2(e), made available to the parties on March 15 and 21, 2017 and available at this weblink:. https://app.box.com/v/SWResponses-ANR.

Typical blasting effects only penetrate the underlying rock by a few feet deeper than the blasting depth (same as the drilling depth for blasting). The upper portions of fractured bedrock contain little or no groundwater, so there is little likelihood of significantly diverting or altering the water table. The very shallow depths of blasting mean that this activity will not significantly divert "underground water courses" or alter the water table. In the final as-built condition of the access and crane roads, the infiltration of precipitation and snowmelt that is now occurring at the locations of proposed blasting will be diverted laterally by only a few tens of feet at each blasting location. At the edges of these blasting areas, this diverted water will partially infiltrate into the underlying bedrock and/or soils as it flows off the blasting areas, entering the water table at these locations. Therefore, these minor diversions of infiltrated water will have no significant impact on "underground water courses" or the water table.

Response provided by: Ian A. Jewkes, Krebs & Lansing
Craig Heindel, C.P.G.

Q. LANG:PETITIONER 1-155: Identify and produce all documents supporting your response to Question 1-154 above.

RESPONSE:

Please see Attachment ANR:SW 1-2(e) and Attachment ANR:SW 1-4a, made available to the parties on March 21, 2017 and available at this weblink: https://app.box.com/v/SWResponses-ANR.

Response provided by: Ian A. Jewkes, Krebs & Lansing
Craig Heindel, C.P.G.

Q. LANG:PETITIONER 1-157: In regards to the stormwater basins to be constructed relative to the Project, please state what volume of water on an annual basis would enter these basins, and further describe what volume of the water which enters these basins would exit the basins via absorption into the ground below the basins and what volume of water would exit the basins via overground courses.

RESPONSE:

Final stormwater modeling calculations have not been completed for the project at this time. However, an order of magnitude calculation for all areas of the project flowing to stormwater detention basins yields an annual volume of approximately 3.1 million cubic feet (versus a pre-development volume of 3.0 million cubic feet). This number was arrived at using an annual rainfall of 37.73 inches (from U.S. Climate Data.com) and the SCS Runoff Equation.
In the stormwater modeling calculations, it is assumed that there is no infiltration into the ground through the bottom of the ponds. While it is likely some infiltration will occur, over time the bottom of the basins will clog with sediment, lowering or eliminating infiltration rates. Therefore, to model the system conservatively, we use the no infiltration assumption.

Of the 15 potential wet pond locations shown, four are located with the pond outlets very close to the receiving water (wetland or stream). The remaining eleven locations have flow paths from the outlet to receiving water ranging from 90 feet to over 1,500 feet. We expect that some absorption into the ground will occur between the ponds and receiving water in these instances.

Response provided by: Scott Homsted, Krebs & Lansing

Q. LANG:PETITIONER 1-162: 162: Identify and produce all documents relative to any and all Town or State agency proceedings for violations of ordinances, bylaws, statutes or regulations relative to the construction, existence or maintenance of Rocky Ridge Road.

RESPONSE:

Objection to the request on grounds that it is not relevant to any issue that the Public Service Board must decide pursuant the applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, is beyond the scope of this proceeding and is not reasonably calculated to lead to the discovery of admissible evidence. Further objection on grounds that it is overly broad, and to the extent that the request seeks documents that are protected by the attorney-client and work product privileges.

Notwithstanding and without waiver of the objections, Swanton Wind responds:

Swanton Wind does not possess or control any documents that are responsive to the request, and is not aware of any Town or State agency proceedings for violations of ordinances, bylaws, statutes or regulations relative to the construction, existence or maintenance of Rocky Ridge Road.

SUPPLEMENTAL RESPONSE:

Please see Attachment Lang 1-162 for documents relating to the construction of the Rocky Ridge housing development, including Rocky Ridge Road.

Respondent: Travis Belisle, Swanton Wind LLC

Q. LANG:PETITIONER 1-10: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Department of Public Service.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.
3. It seeks documents protected by the attorney work-product privilege.

Notwithstanding and without waiver of the objection, Swanton Wind responds that the Langs have in their possession documents responsive to this request that Christine Lang obtained pursuant to a July 21, 2015 public records request to the Department of Public Service.

On July 28, 2016, Travis Belisle, John Zimmerman, Martha Staskus, and Leslie Cadwell met at the Department of Public Service with Chris Recchia, Commissioner, Jon Copans, Deputy Commissioner, and Aaron Kisicki, Special Counsel. The parties discussed the status of the project, the sound assessment being prepared for the Section 248 filing, the PSB's temporary sound rule, and a proposed property buy-out proposal that Swanton Wind was considering to include as part of the Section 248 submission. Counsel's notes from the meeting are confidential and privileged attorney work product. Swanton Wind does not possess other notes from this meeting.

SUPPLEMENTAL RESPONSE:

On January 31, 2017, Travis Belisle, Ashley Belisle, and Anthony Iarrapino, Esq. met at the Department of Public Service with Ed McNamara and discussed the status of the project. Counsel's notes from the meeting are confidential and privileged attorney work product. Swanton Wind does not possess other notes from this meeting.

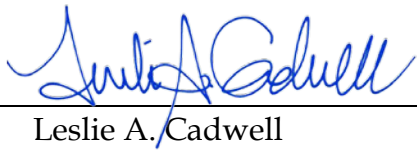
Please see Attachment Lang 1-10 for communications with the Department relative to the meetings on July 28, 2016 and January 31, 2017.

Response provided by: Travis Belisle, Swanton Wind LLC

Objection by counsel.

Dated at Castleton, Vermont this 27th day of March, 2017.

SWANTON WIND LLC

By: 

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STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8816

Petition of Swanton Wind LLC for a certificate of	)
public good, pursuant to 30 V.S.A. § 248, for the	)
construction of an up to 20 MW wind-powered	)
powered by up to 7 wind turbines located along	)
Rocky Ridge in Swanton, Vermont	)

SWANTON WIND'S RESPONSES TO CHRISTINE AND DUSTIN LANG'S FIRST SET OF INFORMATION REQUESTS, QUESTIONS 6, 7, 29, 31, 54, 56, 70, 72, 79, 83, 84, 87, 90, 93, 94, 98, 99, 100, 109, 110, 112, 113, 120, 121, 129, 130, 140

Q. LANG:PETITIONER 1-6: Identify and produce all documents, communications, and contents of oral communications between you and the office of the Governor of the State of Vermont.

RESPONSE:

Objection to the request on grounds that:

1. It is overly broad by lacking (a) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (b) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Notwithstanding and without waiver of the objection, Swanton Wind responds: Travis and Ashley Belisle met with Governor Shumlin in the spring of 2016 (on or around March 9, 2016) and discussed the Swanton Wind Project. Travis Belisle and John Zimmerman met with Darren Springer, Governor Shumlin's Chief of Staff, on September 18, 2015, and discussed the Swanton Wind Project. Please see Attachment Lang 1-6 for the document that is responsive to this request.

Response provided by: Travis Belisle, Swanton Wind
John Zimmerman, VERA

Objection by counsel

Q. LANG:PETITIONER 1-7: Identify and produce all documents, communications, and contents of oral communications between you and the Vermont Department of Taxes.

Response:

Objection to the request on grounds that:

1. It is overly broad by lacking (1) a scope that is relevant to this proceeding and the issues to be decided by the Public Service Board under applicable law, specifically 30 V.S.A. § 248 and Public Service Board Rule 5.400, and (2) a time period that bears some relevance to the Swanton Wind Project.
2. It seeks information that is outside the scope of the Langs' intervention in this proceeding. See PSB Order of 11/18/2016.

Further objection to the extent that the request seeks documents protected by the attorney-client and attorney-work product privileges.

Notwithstanding and without waiver of the request, Swanton Wind does not possess or control documents that are responsive to this request.

With respect to other communications, VERA contacted the Vermont Department of Taxes to get a copy of the statewide grand list. Communications were as follows:

- 1/27/2016 – Emma Allen left a voicemail on a general mailbox
- 1/30/2017 – Emma Allen spoke to a man who told her he didn't know information about the grand list but he would have someone call her back
- 1/31/2017 – Emma Allen talked to a woman named Terri who told her to go onto the website and submit a request for the grand list there. Emma Allen submitted the website request that day.
- Emma Allen received the grand list on a CD in the mail on 2/7/2017.

Response provided by: Emma Allen, VERA

Objection by counsel.

Q. LANG:PETITIONER 1-29:State the fee or fee(s) paid by you, or on behalf of you, to John Zimmerman or VERA relative to any and all services pertaining to this Project, and if such fee or fee(s) were paid on your behalf by another person or entity, identify that person or entity.

RESPONSE:

Objection on the grounds that this request is overbroad, as it inquires about any and all of John Zimmerman's services pertaining to this project, whereas the Langs' intervention and this Section 248 proceeding are both more limited in scope than Mr. Zimmerman's services with respect to the project. Further objection to the request on grounds that it is not reasonably calculated to lead to the discovery of admissible evidence on any issue the Public Service Board must decide pursuant to applicable law, specifically 30 V.S.A. § 248 and Board Rule 5.400. Further objection to the extent the request seeks confidential information that is protected by the attorney client and attorney work product privileges as all of the materials filed in support of the petition in this matter were prepared with the advice and assistance of counsel. Further objection on grounds that the identity of the person or entity who paid the fee or fee(s) is not relevant to the Swanton proceeding, nor is the request for this information reasonably calculated to lead to the discovery of admissible evidence.

Notwithstanding and without waiver of the objection: Mr. Zimmerman's hourly rate is $130.

Response provided by: John Zimmerman, VERA

Objection by counsel

Q. LANG:PETITIONER 1-31: State the fee or fee(s) paid by you, or on behalf of you, to David Raphael or Landworks relative to any and all services pertaining to this Project, and if such fee or fee(s) were paid on your behalf by another person or entity, identify that person or entity.

RESPONSE:

Objection to the extent the request seeks confidential information that is protected by the attorney client and attorney work product privileges as all of the materials filed in support of the petition in this matter were prepared with the advice and assistance of counsel. Further objection on grounds that the identity of the person or entity who paid the fee or fee(s) is not relevant to the Swanton proceeding, nor is the request for this information reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiver of the objection, David Raphael responds: please see Landworks' rate sheet, provided as Attachment SwantonFairfield 1-83, made available to the parties on June 7, 2017.

Response Provided by: David Raphael, Landworks

Objection by counsel

Q. LANG:PETITIONER 1-54: The prefiled testimony of Mr. Raphael at p. 4 references mitigation measures taken by the Petitioner. Please identify each and every mitigation measure taken which is not otherwise described in the Aesthetic Analysis Exhibit SW-DR-2.

RESPONSE:

In addition to the measures set out in the report, please see Swanton Wind's property buyout proposal, Exhibit SW-TB-2.

Response provided by: David Raphael, Landworks

Q. LANG:PETITIONER 1-56: Identify and describe with specificity each and every light or other source of illumination proposed to be installed on each and every element of the Project, including:

A) its location;

B) whether it would be controlled manually, remotely, or automatically by timer, motion sensor or some other device;

C) the brightness of such light source in lumens; and,

D) any shielding associated with such light source.

RESPONSE:

The only lighting proposed to be installed by the Project is the FAA lighting on the turbines, in accordance FAA requirements. (See FAA Advisory Circular 70/7460-1L, which was made available to the requester and other parties as Attachment 1-172). No other lighting will be required.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-70: Mr. Darlow's prefiled testimony at p. 2 line 4 A4 states that he "assisted in the preparation of the shadow flicker analysis....". Please identify any and all individuals or entities who participated in the preparation of the shadow flicker analysis, including in such identification the credentials of each such person, and produce all documents, communications and contents of oral communications between and among each and every such individuals or entities relative to the preparation of the shadow flicker analysis, and between you and any or all of these individuals and entities relative to the preparation of the shadow flicker analysis.

RESPONSE:

Objection to the request on grounds that it is overly broad and seeks trial preparation materials that are outside the scope of discovery. Further objection to the extent the request seeks privileged attorney-client communications and attorney work product.

Notwithstanding and without waiver of the objection, Swanton Wind responds:

Ryan Darlow:	4 years of experience with WindPRO and basic and advanced user certifications from EAPC/EMD (North American retailer of WindPRO/Maker of WindPRO). See also Exhibit SW-RD-1, Resume of Ryan Darlow.
Jeff Snyder:	6 years of experience with WindPro and participated in software manufacturer's training. Mr. Snyder left VERA's employ in September 2016.

Response provided by: Ryan Darlow, VERA
John Zimmerman, VERA

Objection by counsel

Q. LANG:PETITIONER 1-72: For Mr. Darlow and all individuals identified in your response to Question 1-70 above as having participated in the Shadow Flicker analysis, please describe with particularity their training for use of the WindPRO modeling software.

RESPONSE:

Please see the response to Question 70.

Response provided by: Ryan Darlow, VERA

Q. LANG:PETITIONER 1-79: Exhibit SW-RD-2 at p. 3 states that "The results for the analyses show that the 'expected case' shadow flicker model does not exceed a cumulative 30 hours per year for any residence within 2,000 meters of the wind turbines...". In regards to this statement, please:

A) Identify the number of homes within 2,000 meters of the wind turbines;

B) For any such home that would experience shadow flicker during any day of the year under the "bare earth" analysis, state how many hours each such home would experience shadow flicker; and,

C) For any such home that would experience shadow flicker during any day of the year under the "expected" analysis, state how many hours each such home would experience shadow flicker.

RESPONSE:

A) Vermont Center for Geographic Information's E-911 database identified 143 structures as "single family dwelling", "multi-family dwelling", "mobile home", or "commercial w/ residence" within 2,000 meters of the wind turbines.

B) See Exhibit SW-RD-2. The "bare earth" analysis is overly conservative because it does not consider intervening vegetation and is only for used for qualitative comparison to the "expected case". See response to Lang 1-71.

C) See response to Lang 1-71.

Response provided by: Ryan Darlow, VERA

Objection by counsel

Q. LANG:PETITIONER 1-83: State whether or not the Prefiled Testimony and Exhibits of Dariush Faghani comprise the complete statement of Dr. Faghani's opinions regarding the ice throw analysis of this Project, as well as the complete facts and data considered by Dr. Faghani in forming his opinions regarding the ice throw analysis of this Project. If your answer to this inquiry is negative, identify and produce any and all additional opinions, facts and data not included in the Prefiled Testimony and Exhibits of Dariush Faghani which comprise the complete statement of his opinions and the complete facts and data relied upon by him.

RESPONSE:

Objection to the extent the request seeks the confidential and proprietary output of DNV GL's proprietary model.

Further objection to the request to the extent that it seeks facts and data that are constitute confidential business information, the production of which would hurt Swanton Wind's business interests; this information will only be provided under cover of a protective agreement.

Notwithstanding and without waiving the objection, Shant Dokouzian of DNV GL is adopting the testimony and exhibits of Dariush Faghani in this docket. The prefiled testimony and Exhibits comprise the complete statement of Shant Dokouzian's opinions regarding the ice throw analysis for this Project. Facts and data relied upon are referenced in the testimony and Exhibits. See also Attachment Lang 1-86 and Attachment Lang 1-90 and 1-90-A (.kmz file attached to the email produced at 1-90). See also Measurement Tower Commissioning Information produced at Bates TB-ANR-001 though TB-ANR-005 in PSB Docket 8561 in which the Langs are intervening parties.

Response provided by: Shant Dokouzian, DNV GL

Objection by counsel

Q. LANG:PETITIONER 1-84:State the fee or fee(s) paid by you, or on behalf of you, to Dariush Faghani and/or GL Garrad Hassan Canada, Inc. relative to any and all services pertaining to this Project, and if such fee or fee(s) were paid on your behalf by another person or entity, identify that person or entity.

RESPONSE:

Objection to the extent the request seeks confidential information that is protected by the attorney client and attorney work product privileges as all of the materials filed in support of the petition in this matter were prepared with the advice and assistance of counsel. Further objection on grounds that the identity of the person or entity who paid the fee or fee(s) is not relevant to the Swanton proceeding, nor is the request for this information reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiver of the objection, Shant Dokouzian responds: Dariush Faghani's rate in 2016 was 255 USD per hour. Shant Dokouzian is now working on the Project for DNV GL in the place of Dariush Faghani. Mr. Dokouzian's 2017 rate is 265 USD per hour.

Response provided by: Shant Dokouzan, DNV GL

Objection by counsel

Q. LANG:PETITIONER 1-87: The prefiled testimony of Dariush Faghani at p. 4 lines 3-4 A6 states, "We used on-site data provided by the project sponsor to run our proprietary model ...." . With respect to this statement:

A) Identify and produce all on-site data provided to Dariush Faghani by the project sponsor; and,

B) Produce an operational copy of the proprietary model utilized by Dariush Faghani as referenced; and,

C) Produce all documentation, records, data files and the like produced by the referenced run of the proprietary model relative to this Project.

RESPONSE:

A) Objection to the extent the questions seeks data that is proprietary and/or constitutes confidential business information, the protection of which would harm Swanton Wind's business interests. This data will be provided under cover of a protective agreement. Notwithstanding and without waiver of the objection, Shant Dokouzian responds: please see the responses Lang 1-86 and Lang 1-83.
B) Objection to the extent the questions seeks data that is proprietary and/or constitutes confidential business information. The model used to produce the ice throw results is proprietary to DNV GL. It is not commercially available and can only be accessed by individuals within DNV GL. It has been developed by DNV GL and cannot be shared outside of the organization.
C) Objection to extent questions seeks proprietary and/or confidential business information. Interim results produced by the model are proprietary. Notwithstanding and without waiver of the objection, Shant Dokouzian responds: The final results of the simulation are described in the report.

Response provided by: Shant Dokouzian, DNV GL

Objection by counsel

Q. LANG:PETITIONER 1-90: Identify and produce all emails and any and all other documents, communication and contents of oral communication between Dariush Faghani or any other agent or employee of GL Garrad Hassan Canada, Inc. and Jeff Snyder or any other agent or employee of VERA Renewables, including but not limited to those referenced in Exhibit SW-DF-2 p. 19 references 1 and 2, provided they have not already been produced in your response to Q. 1-86 above.

RESPONSE:

Objection on the basis that the request is overbroad, as it is not limited to communications and documents that relate to the Swanton Wind project and its analysis under 30 V.S.A. Sec. 248 and Public Service Board Rule 5.400.

Objection to the extent that the request seeks documents and communications that are privileged.

Further objection to the extent that the request seeks information and documents that are confidential and/or proprietary.

Notwithstanding and without waiver of the objection, please see Attachment Lang 1-86 and 1-90 through 1-90-A.

Response provided by: John Zimmerman, VERA

Objections by Counsel.

Q. LANG:PETITIONER 1-93: Admit that the area identified on Exhibit SW-DF-2 page 16, Figure 5-1, as the area within which there is a risk of ice fragment strikes, includes property outside of the Project parcel.

RESPONSE:

Admitted. As stated in Exhibit SW-DF-2, the probability map in Figure 5-1 does not directly represent the risk levels to the public. Rather, it represents the probability of ice hit per unit area for an object remaining continuously at a given location for the entire winter season. Risk levels for people would are lower still. See Exhibit SW-DF-2.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-94: Identify any and all protective measures that will be put in place by you to assure that property owned by others, and workers on property owned by others, will not be subjected to ice throw from the Project?

RESPONSE:

Please refer to the winter operating protocol, Exhibit SW-MS-4. See also Exhibit SW-DF-2, which explains that the risk of ice throw to individuals is very small. See also the response to Lang 1-98, below.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-98: Exhibit SW-MS-4 at p. 2 states that a pre-established communications method will be offered to a designated landowner or representative of winter commercial operations located within the limits of the DNV-GL Ice Throw Probability Map. Please identify each and every individual or entity who devised or adopted this protocol, and further identify and produce all documents, data, facts and communications supporting the adoption of this protocol.

RESPONSE:

Please see the response to Swanton Fairfield 1-96.

Response provided by: Martha Staskus, VERA

Q. LANG:PETITIONER 1-99: State whether or not the Prefiled Testimony and Exhibits of Kenneth Kaliski comprise the complete statement of Mr. Kaliski's opinions regarding the aesthetic analysis of this Project, as well as the complete facts and data considered by Mr. Kaliski in forming his opinions regarding the aesthetic analysis of this Project. If your answer to this inquiry is negative, identify and produce any and all additional opinions, facts and data not included in the Prefiled Testimony and Exhibits of Kenneth Kaliski which comprise the complete statement of his opinions and the complete facts and data relied upon by him.

RESPONSE:

Objection on the basis that the request is vague or ambiguous because it refers to the aesthetic assessment but references the expert witness on sound. Notwithstanding and without waiver of the objection, Mr. Kaliski responds: Mr. Kaliski did not do an aesthetic analysis; he analyzed sound with respect to the Project under the Public Service Board's temporary rule on sound, Rule 5.700. David Raphael provided the aesthetic assessment for the Project. See Exhibit SW-DR-2. Mr. Kaliski's prefiled testimony and exhibits in this docket comprise the complete statement of his relevant opinions with respect to RSG's noise impact assessment of the Project. His testimony and exhibits identify the facts and data he relied on for his analysis. Mr. Kaliski concluded that the Project would not have an undue adverse impact with respect to noise.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Objection by counsel

Q. LANG:PETITIONER 1-100: State the fee or fee(s) paid by you, or on behalf of you, to Kenneth Kaliski or RSG relative to any and all services pertaining to this Project, and if such fee or fee(s) were paid on your behalf by another person or entity, identify that person or entity.

RESPONSE: Objection to the extent the request seeks confidential information that is protected by the attorney client and attorney work product privileges as all of the materials filed in support of the petition in this matter were prepared with the advice and assistance of counsel. Further objection on grounds that the identity of the person or entity who paid the fee or fee(s) is not relevant to the Swanton proceeding, nor is the request for this information reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiver of the objection, Kenneth Kaliski's 2016 rate for testimony was $269.54 per hour.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Objection by counsel

Q. LANG:PETITIONER 1-109: Please produce all modeling data, documents and files relied on to determine that the NRO mode for Turbine 5 would allow the Project to meet the 45dBA standard as indicated in the prefiled testimony of Kenneth Kaliski at page 4, lines 13-16.

RESPONSE:

Objection on grounds that the material requested is confidential and proprietary to the wind turbine manufacturer and Swanton Wind's access to it is subject to an enforceable non-disclosure agreement. The information will be provided in accordance with the provisions of the nondisclosure agreement and under the protection of a protective order so that the confidentiality of the manufacturer's proprietary trade secret information can be maintained. Notwithstanding and without waiver of the objection, the testimony cited in this request explains that "with a noise reduced operation (NRO) of 2 dB on Turbine 5, the southwestern most turbine, the highest modeled sound level at any residence within 1,900 feet of the Project was 43 dBA." The noise reduced operation referenced provides a 2 decibel buffer from the 45 dbA standard. Please see Exhibit SW-KHK-2 for details on RSG's sound modelling and results. Appendix C of that exhibit provides model input data. Figures 31 and 32, and Appendix E, present modelling results. Also, see the response to question 108, above.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Objection by counsel

Q. LANG:PETITIONER 1-110: Please identify with specificity the manufacturer, make and model of turbine to be used by the Project, and produce all documents relative to the sound modeling of those identified turbines, as required by PSB Rule 5.704(A).

RESPONSE:

Swanton Wind LLC has not made a final turbine selection. Sound modeling per 30 V.S.A. 248(o) was modelled based on the Goldwind GW109 turbine with a guaranteed maximum sound power level of 104.5 dBA, as described in the sound report, Exhibit SW-KHK-2. The sound modelling will be supplemented as required by and in accordance with the Public Service Board's rules. For the Goldwind GW109. Also, see the response to question 108.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-112: Identify and produce all documents pertaining to the NRO mode power curves and the associated noise reduction for each NRO mode power setting for each wind turbine considered for this project.

RESPONSE:

Objection on grounds that the material requested is confidential and proprietary to the wind turbine manufacturer and Swanton Wind's access to it is subject to an enforceable non-disclosure agreement. The information will be provided in accordance with the provisions of the nondisclosure agreement and under the protection of a protective agreement and/or protective order so that the confidentiality of the manufacturer's proprietary trade secret information can be maintained.

Objection by counsel.

Q. LANG:PETITIONER 1-113: Identify and produce all documents pertaining to sound source modeling relative to the sound emitted by the ground-mounted cooling fans.

RESPONSE:

Objection on grounds that the material requested is confidential and proprietary to the wind turbine manufacturer and Swanton Wind's access to it is subject to an enforceable non-disclosure agreement. The information will be provided in accordance with the provisions of the nondisclosure agreement and under the protection of a protective agreement and/or protective order so that the confidentiality of the manufacturer's proprietary trade secret information can be maintained.

Notwithstanding and without waiver of the objection, please refer to Exhibit SW-KHK-2 at 45 and Appendix C. Also, please refer to 108 above.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Objection by counsel

Q. LANG:PETITIONER 1-120: The prefiled testimony of Kenneth Kaliski at page 7 lines 8-10 states: "we have not modeled interior levels, but may approximate interior levels based on the exterior sound levels and what can be observed of certain homes from outside at some point in the future." Please describe in detail how the interior levels were approximated based on exterior sound levels, and further state at what point in the future will certain homes be observed, from the outside, and which homes shall be included in the "certain homes" observed.

RESPONSE:

The approximation referred to in the quoted sentence has not been done, and no plans have been made to date to do this analysis. The sentence indicates that such an approximation "may" be done "at some point in the future." See also Exhibit SW-KHK-2 at Sections 2.3 and 2.5, which explain that under World Health Organization guidelines and Public Service Board precedent, a 15 db attenuation between exterior and interior sound levels can be assumed.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-121: The prefiled testimony of Kenneth Kaliski at page 8 line 16 states: "provided the project is approved and operated as designed and specified". Please describe with particularity what monitoring would be performed, for how long, and by whom, to ensure the project is operated and designed as specified?

RESPONSE:

Post-construction monitoring would be specified in a post-construction monitoring protocol, which has not been completed at this time.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG

Q. LANG:PETITIONER 1-129: Exhibit SW-KHK-2 at page 14 regarding 2.5 | SOUND LEVEL THRESHOLD GOALS FOR SWANTON WIND states, in the last sentence: "No violations of the standard were found in any of those cases, except during anomalous events which were corrected". Footnote 4 goes on to state, "In Kingdom Community Wind, exceedances of the 45dBA Leq 1 hr standard were found when rime snow formed on the wind turbine blades. This was not repeated after an enhanced blade icing protocol was implemented." Please describe with particularity how the footnote-referenced incident is similar to, or different from, the 2016 sound standard exceedances of the Georgia Mountain project which were also related to icing or snow on the wind turbine blades.

RESPONSE:

Objection on the basis that this request to compare the Kingdom Community Wind Project with the Georgia Mountain Community Wind Project (an ongoing proceeding) is not relevant or reasonably calculated to lead to discovery of admissible evidence with respect to the Swanton Wind Project. Further objection on grounds that the request requires Swanton Wind to conduct research and analysis that the requester is equally able to do based on publicly available information. To the extent that the analysis cannot be done without publicly available information, Swanton Wind objects on grounds that it is unduly burdensome to undertake the requested research and analysis.

Objection by counsel

Q. LANG:PETITIONER 1-130: Please state whether wind shear has been modeled at the Project site and, if so, produce all documentation utilized as assumptions and produced as output data from such modeling.

RESPONSE:

Objection to the extent the request seeks information that is confidential and/or proprietary. Notwithstanding and without waiver of the objection, RSG has not modelled wind shear at the project site. Wind shear was modelled at the Project site by VERA. The modelling is confidential and proprietary business information whose public disclosure will cause financial harm to Swanton Wind and VERA. Information responsive to the request will be produced under the protection of a protective order.

Response provided by: Kenneth H. Kaliski, PE, INCE Bd. Cert., RSG; Martha Staskus, VERA

Objection by counsel

Q. LANG:PETITIONER 1-140: State the fee or fee(s) paid by you, or on behalf of you, to Richard W. Heaps or RWH Economics, Inc. relative to any and all services pertaining to this Project, and if such fee or fee(s) were paid on your behalf by another person or entity, identify that person or entity.

RESPONSE:

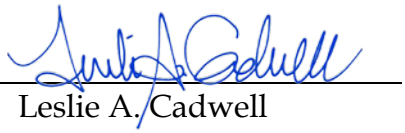
Objection to the extent the request seeks confidential information that is protected by the attorney client and attorney work product privileges as all of the materials filed in support of the petition in this matter were prepared with the advice and assistance of counsel. Further objection on grounds that the identity of the person or entity who paid the fee or fee(s) is not relevant to the Swanton proceeding, nor is the request for this information reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiver of the objection, Mr. Heaps' hourly rate is $200.

Response provided by: Richard W. Heaps, RWH Economics Inc.

Objection by counsel

Dated at Castleton, Vermont this 7th day of June, 2017.

SWANTON WIND LLC

By: 

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