



[townhall.virginia.gov](http://townhall.virginia.gov)

## Periodic Review Report of Findings

<b>Agency name</b>	Department of Environmental Quality
<b>Virginia Administrative Code (VAC) citation</b>	9VAC15-40
<b>Regulation title</b>	Small Renewable Wind Energy Projects Permit by Rule
<b>Date this document prepared</b>	March 12, 2019

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

## Acronyms and Definitions

*Please define all acronyms used in this Report. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.*

MW- Megawatts  
PBR- Permit by Rule

## Legal Basis

*Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity's overall regulatory authority.*

The Department of Environmental Quality is authorized by § 10.1-1197.6 of the Code of Virginia to adopt regulations for permits or permits by rule (PBR) if the Department determines permits are necessary for the construction and operation of small renewable energy projects. The Department of Environmental Quality determined that a PBR was needed for wind energy projects with a rated capacity greater than 5MW and less than 100MW and adopted Small Renewable Energy Wind Projects Permit by Rule on December 22, 2010. The regulation was amended in 2017 to increase the size of the small renewable wind energy projects eligible for coverage under the PBR from 100MW to 150MW. State law requires other necessary environmental permits to be obtained in addition to this PBR (§10.1-1197.6 B 12).

## Alternatives

*Please describe any viable alternatives for achieving the purpose of the regulation that were considered as part of the periodic review. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving its purpose.*

As part of this review, the Department considered requiring a case by case analysis of each project. This alternative was rejected since the regulation contains requirements that are applicable to all projects that are protective of human health and the environment. The current method of regulating this activity by the use of a PBR protects human health and the environment while minimizing the burden on the operators of renewable energy wind projects. The PBR provides a mechanism for applicants to evaluate and review natural resource impacts not otherwise covered under regulatory permit programs. The PBR process also encourages the development of renewable energy wind projects, benefitting air quality.

**Public Comment**

*Please summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency response. Ensure to include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency or board. Please indicate if an informal advisory group was formed for purposes of assisting in the periodic review.*

An informal advisory group was not formed for the purpose of this periodic review.

<b>Comment Number</b>	<b>Commenter</b>	<b>Comment</b>	<b>Agency response</b>
1	Michael Jamison/ Alternative Energy Systems	Small wind generating turbines should not be allowed if they are over 100' tall. The energy required for backup generators and the amount of electricity to get a wind turbine spinning from a stalled position should be revealed to the public and who pays for that energy should also be revealed to the public.	Section 10.1-1197.6 of the Code of Virginia requires a certification to be provided by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances. The local governing authority is able to provide such limitations or restrictions if deemed appropriate; however, the department has no statutory authority to establish such limits. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.
2	Alan Brown	The PBR application process and regulations must require that wind energy generation claims be verified by a third party and be made available to state agencies and the public. The use of tax payer subsidies must require transparency in the PBR process.	The requested third party verification is an additional requirement that is not authorized by the Code of Virginia. Section 10.1-1197.6 of the Code of Virginia does not address tax payer subsidies, which are handled at the local level. No change will be made to the regulation.

Comment Number	Commenter	Comment	Agency response
3	Laura Harrawood	<p>The PBR Wind Turbine application process must allow protection for adjoining counties of any proposed turbine project. The intense negative impacts of industrial turbines cross jurisdictional lines and all adjoining counties must have a voice in the approval process. The case of the proposed Rocky Forge project by Apex is a toxic example of proposed turbines destroying the scenic economy of multiple counties.</p>	<p>Section 10.1-1197.6 of the Code of Virginia requires a certification to be provided by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>
4	Steve Neas	<p>There is growing resistance to industrial wind energy in this country and abroad. Large industrial wind turbines inflict damage to wildlife and negatively affect humans living in proximity to industrial wind projects. These effects do not respect jurisdictional lines. If these effects, cross the jurisdictional lines of the entity providing the certification, then the PBR should not apply. Effects are noise, viewshed, shadow flicker, or infra-sound (typically travels 4 times audible sound).</p> <p>The purpose of this requirement is to give those affected by a wind project a voice.</p>	<p>Section 10.1-1197 et.seq. of the Code of Virginia does not provide authority to the Department for siting criteria within the PBR regulation for proposed wind projects. The local governing body makes determinations regarding siting of wind facilities proposed within their jurisdictional control and can choose to not allow such development. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
5	Steve Neas	<p>In the world of power generation, the amounts of electricity a fossil fuel plant can produce is well known. If a certain amount of natural gas is pumped into a boiler, a known amount of steam will be produced and therefore the energy produced is known. No surprises. Conventional energy production cannot be compared to renewable energy in the same way. Installed capacity with conventional energy production closely matches that actual energy production; not so with wind energy. Most engineers familiar with wind energy will agree that the most one will get out of a wind project is less than 20% of the installed capacity, more like 10% to 13%, depending on location. As part of the certification required by the application, and in the spirit of transparency, a third party engineer's certification should be required showing the actual energy that can be expected based on at least one year of actual measured wind data at the site, with back up wind data.</p>	<p>The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
6	Steve Neas	<p>Wind energy like solar is very dilute. To categorize wind or solar by installed capacity is misrepresentative. Because wind energy is very dilute, large amount of property is required to develop very little unreliable energy. For instance, Apex Clean Energy confirmed to me that they typically clear cut 5 acres around one 3MW 500' tall industrial wind turbine. Using that information, a 150 MW facility that is allowed under PRB would clearcut 450 acres. Does anyone at DEQ think a project requiring 450 acres clear cut is small? Compound that with the difference between 'installed' capacity and 'actual' energy produced and the concept is more outrageous. PJM, the owner of the grid in this area, rates wind energy at 13% of installed capacity. In other words, they expect to receive 13% of the installed capacity. So, for the 150MW facility that uses 450 acres of land, one could expect 19.5 MW of energy. The only thing small is the very little amount of energy produced for significant disruption to the environment. Change the definition of "Small wind energy" to 150 MW and not to require more than 50 acres of land.</p>	<p>Public policy regarding renewable energy for the Commonwealth of Virginia is determined by the General Assembly which passed Section 10.1-1197.5 of the Code of Virginia. The definition by statute states: "small renewable energy project" means (i) an electrical generation facility with a rated capacity not exceeding 150 megawatts that generates electricity only from sunlight or wind; (ii) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from falling water, wave motion, tides, or geothermal power; or (iii) an electrical generation facility with a rated capacity not exceeding 20 megawatts that generates electricity only from biomass, energy from waste, or municipal solid waste." The requested change conflicts with state law and no change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
7	Sandra Stuart, Virginians for Responsible Energy	<p>9 VAC15-40 -10: Definitions</p> <p>ADD –</p> <p>&gt;“Geological features” means the underlying landforms of valleys, ridges, beaches, etc.</p> <p>&gt; “Impact zone” means all geographic areas, regardless of political boundaries and including geological and water features, that will be affected by construction, operation &amp; maintenance, vibrations, blasting for the purpose of siting wind turbines.</p> <p>&gt; Under “Small wind energy project” ..... Add (iii) project not to exceed 50 acres</p> <p>&gt;“Water features” means streams, wetlands, springs.</p>	<p>Public policy regarding renewable energy for the Commonwealth of Virginia is determined by the General Assembly which passed Section 10.1-1197.6 of the Code of Virginia and specifies which resources are to be evaluated under the Permit by Rule Regulation which does not include geological features. The statute determines the size of a project by amount of electricity produced, not the acreage required. No changes will be made to the regulation.</p> <p>Recommendations pertaining to the definition of “Impact zone” and “water features” may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.</p>
8	Sandra Stuart, Virginians for Responsible Energy	<p>9 VAC15-40-20: Authority and Applicability</p> <p>CONSIDER–</p> <p>&gt; Repealing parts that allow “small wind” projects to be developed in mountainous karst areas and that would require more than 50 acres of land.</p>	<p>The local governing body makes determinations regarding siting of wind facilities proposed within their jurisdictional control and can choose to establish limitations or to not allow such development. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
9	Sandra Stuart, Virginians for Responsible Energy	<p>9VAC15-30 Application for permit by rule wind energy projects Application A -2.</p> <p>ADD –</p> <p>&gt; Projects that lie on the border of another political entity (county) will need the applications and the approval of both local governments.</p>	<p>Section 10.1-1197.6 of the Code of Virginia requires a certification to be provided by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>
10	Sandra Stuart, Virginians for Responsible Energy	<p>9VAC15 -40-30: Application for permit by rule for wind energy projects Application A-7</p> <p>ADD –</p> <p>&gt; Water features within the impact zone need to be identified and protected by a permit that includes stormwater and erosion &amp; sediment regulations approved by DEQ. The plan also needs to indicate how dependable oversight and enforcement will be provided.</p> <p>&gt; Geological features that will be destroyed during the construction need to be identified. Blasting required to level and eliminate ridgelines needs to be identified by site and an engineer’s design submitted for approval.</p> <p>The omissions of these obvious “natural resources” is puzzling. Other than the Natural Heritage program which is mainly concerned with plants and DGIF’s website with probable fish &amp; wildlife, a complete analysis of the natural resources is not required in the current regulation.</p> <p>[A one-minute You Tube site shows construction for a 500 foot turbine, requiring on flat land excavation 9.8 feet deep and 100.7 feet diameter. <a href="https://www.youtube.com/watch?v=Q2o5P-6zm6Y">https://www.youtube.com/watch?v=Q2o5P-6zm6Y</a>. For comparison, Rocky Forge: 25 turbines, 550 feet high, on steep slopes]</p>	<p>Public policy regarding renewable energy for the Commonwealth of Virginia is determined by the General Assembly. Section 10.1-1197.6 of the Code of Virginia specifies which resources are to be evaluated under the PBR and does not include geological features.</p> <p>Section 10.1-1197.6 of the Code of Virginia does require a certification signed by the applicant that the small renewable energy project has applied for or obtained all necessary environmental permits; this includes permits for wetlands, soil erosion and stormwater permitting. Enforcement of these permits are handled under the respective offices of the Department. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
11	Sandra Stuart, Virginians for Responsible Energy	9VAC15 -40-30: Application for permit by rule for wind energy projects  Application A-8 ADD – > to the “significant adverse impacts ....” add “geologic features, water features ....” The significant destruction of these natural resources needs to be recognized and included in any honest appraisal of the construction of turbines.	Regarding the proposed revision pertaining to geological features, please see response to comment # 7.  The proposed revision pertaining to water features may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.
12	Sandra Stuart, Virginians for Responsible Energy	9VAC15-40 -40: Analysis of the beneficial and adverse impacts on natural resources ADD to C – > Geological features and water features: identify these features within the impact zone and provide analysis of the expected impact.	Regarding the proposed revision pertaining to geological features, please see response to comment # 7.  The proposed revision pertaining to water features may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.
13	Sandra Stuart, Virginians for Responsible Energy	9VAC15 - 40 -50: Determination of likely significant adverse impacts. ADD – > C. The department shall find that significant adverse impacts to geologic features and water features are likely to occur whenever a proposed project diminishes any aspect of the natural resource's integrity. (Reference the geologic and water features that are identified on an updated site plan 9VAC15-40-70)	Regarding the proposed revision pertaining to geological features, please see response to comment # 7.  The proposed revision pertaining to streams, springs and wetlands may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.



Comment Number	Commenter	Comment	Agency response
14	Sandra Stuart, Virginians for Responsible Energy	9VAC15-40-60: Mitigation plans ADD – > D. Mitigation measures for significant adverse impacts to geologic features to include the loss of the ridge top of a mountain which cannot be replaced. (Essentially turbine construction amounts to mountaintop removal) > E. Mitigation measures for significant adverse impacts to water features to include the cost of cleaning up the streams, springs, and wetlands.	Regarding the proposed revision pertaining to geological features, please see response to comment # 7.  The proposed revision pertaining to streams, springs and wetlands may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.
15	Sandra Stuart, Virginians for Responsible Energy	9VAC15-40 -70: Site plan and context map requirements in application A ... ADD – > in (i) change to “the boundaries of the impact zone” > in (ii) Add size of base of turbine and materials used for each turbine site.	The proposed revision may be considered when the regulation is reopened for amendment in the future.
16	Sandra Stuart, Virginians for Responsible Energy	9VAC15-40 -70: Site plan and context map requirements in application B ... Change – > “.... the area encompassed by the site and within five miles of the site boundary” .... to “ .... the area encompassed by the impact zone.”	The proposed revision will be considered when the regulation is reopened for amendment in the future.
17	Tenney Mudge	PBR regulations must prohibit and disallow applications for wind turbine projects in areas where the results of 9VAC 15-40 Wind PBR Guidance DEQ Section II Methodology analyses confirm threatened or endangered species are located in the proposed project area. No mitigation permissible.	The proposed revision may be considered in consultation with the Department of Game and Inland Fisheries when the regulation is reopened for amendment in the future.

Comment Number	Commenter	Comment	Agency response
18	Tenney Mudge	<p>PBR regulatory process must include adjoining counties</p> <p>All adjacent counties and city governmental administrations must receive formal written notification of a PBR Notice of Intent (Code of Virginia Article 5 Small Renewable Energy Projects 10.1-1197.6 B1) submitted in an adjoining county within a designated time period from the date of Notice of Intent for any wind turbine project..</p> <p>All counties and governmental jurisdictions impacted by analyses as required by PBR Guidance DEQ Section II Methodology 9VAC 15-40 including view shed and scenic resources must be included and required in writing to approve or disapprove of the project as part of the regulatory process.</p> <p>Wind turbine projects severely impact across county and city governmental boundaries</p>	<p>Section 10.1-1197.6 of the Code of Virginia requires a certification to be provided by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
19	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 5. Certification regarding project’s maximum generation capacity AND 6. attainment of national ambient air quality standards</p> <p>CHANGE: These two items are currently based only on the theoretical maximum generation capacity based on the proposed number and make and model of wind turbines. This is insufficient to provide a realistic analysis of the actual impact of the project on attaining any standards. I propose the following:</p> <p>Since wind speed is the basis for the actual production of electricity, and since wind speed is highly variable from hour to hour and day to day, and time of the year, an analysis of wind data collected from instrumentation located at the proposed site must be conducted                      The wind data must cover a period of at least one year                      The wind data and the results of the analysis must be included in the application so that an independent verification of the analysis can be performed                      The analysis of power generation must take into account the wind data and operational down time due to turbine maintenance and mitigation schedules</p> <p>REASON: The applicant for Rocky Forge Wind claimed that enough electricity will be generated for up to 20,000 homes. An analysis of wind data from another site in the region showed that the number was only about 8,000 homes. The applicant refused to provide wind data from the Rocky Forge site to environmental groups, or even a local county government, claiming it was proprietary. Thus it was impossible for anyone or any state agency to verify claims of energy generation. The wind is not proprietary, and refusal to make the data available raises serious questions about the integrity of the claims made by the applicant.</p>	<p>The information request may be considered when the regulation is reopened for amendment in the future.</p>

Comment Number	Commenter	Comment	Agency response
20	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 2. furnishes to the department a certification by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances</p> <p>CHANGE: This regulation does not address the situation where the proposed project is located close to governmental boundaries (i.e., county, city, etc.). Currently only the governing body where the project is physically located needs to provide approval. If a project is close to the boundary there can easily be significant impacts (view shed, noise, shadow flicker, erosion, etc.) that cross governmental boundaries. I propose the following:</p> <p>If a project has impacts across governmental boundaries then all impacted governing bodies need to furnish certification that the project complies with all applicable land use and other applicable ordinances.</p> <p>An alternative would be that if a project has impacts across governmental boundaries the project no longer can be considered to be a "small" renewable energy project and must go through the standard permit process with the State Corporation Commission.</p> <p>REASON: The location of Rocky Forge Wind in Botetourt County is right on the border with Rockbridge County and Allegheny Counties, and visual, sonic, blasting, run-off, and other impacts are as significant in those counties as in Botetourt County. But, only Botetourt County needed to grant a permit, and the other counties had no authority to allow or prevent the project. This is an extremely poor situation that needs to be remedied.</p>	<p>Section 10.1-1197.6 of the Code of Virginia requires a certification be provided by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances. The requested change is an additional requirement that is not authorized by the Code of Virginia. No change will be made to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
21	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 2. furnishes to the department a certification by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances.</p> <p>CHANGE: The Model Wind Ordinance available from DEQ written in 2012. Since that time there has been a lot more research on the impacts of, and experience with, industrial wind. I propose the following:</p> <p>Establish a panel of experts, consisting of both advocates and opponents of industrial wind to review the Model Wind Ordinance. Obtain input from locations around the U.S on problems that have been encountered where industrial wind projects have been built, and use that information to come up with appropriate regulatory language that sets requirements for noise (audible &amp; infrasound), setback (for shadow flicker, ice throw, etc.), and other aspects.</p> <p>REASON: Many items in the model ordinance are based on input from the wind industry and its advocates and do not reflect current research and real world experiences with the impacts of noise, shadow flicker, ice throw, bird and bat mortality, etc. Many counties, particularly in rural locations where wind projects are proposed, do not have the expertise or financial resources to research and write an effective ordinance. Thus the energy companies are able to provide the language that tilts the ordinance in their favor to the disadvantage of county government and residents.</p>	<p>The department follows the requirements for regulation development as required in the Administrative Process Act (APA) (§2.2-4000 et seq. of the Code of Virginia). Specifically, § 2.2-4007.02. Public participation guidelines, establishes the use of ad hoc advisory panels and consultation with groups and individuals indicating interest in working with the agency. Such a process was utilized when the regulation was first developed and such a process will be followed when the regulation is reopened for amendments. If changes are made to the regulation in the future, the agency will assist local government representatives to update the model ordinance.</p>

Comment Number	Commenter	Comment	Agency response
22	Jeffrey Scott	<p>REGULATORY SECTION: 50.                      Determination of Likely Significant Adverse Impact</p> <p>CHANGE: I propose the following:</p> <p>Add new paragraph C, "Property Values" and provide a methodology for determining the zone of impact for properties that will be adversely impacted by noise and visual degradation                      require the applicant to establish an escrow fund for those properties within the zone of impact so that the owner will be able to receive fair market value for the property if it is sold</p> <p>REASON: Industrial wind advocates claim property values are not affected citing studies to support that position. There are also many studies that show that they are. To insure that property owners are not financially harmed, it is only reasonable to provide a guarantee.</p>	<p>The department has no statutory authority to create escrow funds for private or public property owners. No change is needed to the regulation.</p>
23	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 1. Notice of Intent</p> <p>CHANGE: I propose the following addition:</p> <p>Prohibit the applicant from signing any Non-Disclosure Agreements with property owners prior to providing notification to the local government authorities of the applicant's intent to pursue approval for an industrial wind project</p> <p>REASON: NDA's are commonly used by industrial wind companies to gain a "foothold" in an area before any announcement is made to the public, or any notice given to local government, about the intentions to build an industrial wind facility. Citizens need to know what money is being spent by the applicant to gain acceptance and silence dissent.</p>	<p>The department has no statutory authority to interfere in the agreements between private property owners. No change is needed to the regulation.</p>

Comment Number	Commenter	Comment	Agency response
24	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 13. Public review and comment, AND 90. Public participation. A. Public Notice</p> <p>CHANGE: Announcement by applicant of public comment period needs to be more widely publicized than just in the "Public Notices" section of newspaper classifieds. I propose the following:</p> <p>the applicant must place the notice in the main section of the paper and be of a size at least 3 columns wide and 5 inches high, with a title using a large font clearly stating "Notice of Public Comment Period"</p> <p>the applicant be required to set up a website for the proposed project, and that the announcement of the comment period be clearly visible on the home page</p> <p>The applicant be required to provide electronic versions of all application documents available on the website in addition to hard copy versions</p> <p>The applicant be required to allow subscriptions so that notices will be emailed</p> <p>the DEQ shall set up a page containing links to of all PBR applicants' websites</p> <p>REASON: The notification of the public comment period for Rocky Forge Wind was "buried" in the "Public Notices" section of the newspaper classifieds among notices of bankruptcies, etc. Even though I was on the lookout for the notice, I did not see the notice until another person pointed out where it was. Other notices of proposed construction, rate changes, etc., by electric utilities are printed in the main section of the paper and are much more visible. The requirement for a website and email notifications is that in this day and age, many people do not get their information from traditional newspapers and get their information via the internet.</p>	<p>DEQ agrees that email notifications are a useful way to notify the public concerning the receipt of a Notice of Intent for a wind energy PBR. DEQ publicizes the receipt of a Notice of Intent from an applicant for a wind energy PBR by listing the project on the DEQ website and by issuing a general notice through the Virginia Regulatory Town Hall website. The Virginia Regulatory Town Hall notification service allows registered users to receive notifications concerning regulatory changes as well as general notices issued by DEQ. Individuals interested in a specific project may contact the DEQ staff listed for the project to receive additional information on the project. No change will be made to the regulation.</p>

<p>25</p>	<p>Jeffrey Scott</p>	<p>REGULATORY SECTION: 50.                  Determination of Likely Significant Adverse Impact A. Wildlife</p> <p>CHANGE: It is stunning that the PBR regulation requires the determination of likely significant impact on wildlife and historic resources, but not on people! This is an oversight that needs to be remedied. Aside from that, there is no mention of the adverse impact that noise can have on wildlife. Many studies have shown that wildlife is adversely impacted by noise, and currently there is nothing in the regulation that requires an analysis of that impact. Require actual noise studies, not computer models. I propose the following:</p> <p>The applicant will use sound generation equipment producing the noise levels (i.e., dB) and frequencies (audible and infrasound) that the proposed wind turbine make and model generates                  The sound generation equipment shall be placed at the proposed locations of the wind turbines                  Sound monitoring devices shall be placed at various locations and distances from the sound generation equipment                  The sound generators will be elevated to the height of the nacelle of the proposed turbine make and model                  The sound generation tests will be performed in various temperature, humidity, and wind conditions.                  Public notification of sound generation testing must be sent to all landowners within two miles of the proposed site                  The results of the noise study must be included in the PBR</p> <p>REASON: The noise study performed for Rocky Forge Wind used a computer simulation that was developed for flat land, and that was explicitly stated to be "not intended for use in mountainous regions". Anyone who has lived in mountainous areas knows how sound can carry and bounce around. I know from personal experience that I can easily hear a chain saw or power mower from a mile away, and my hearing is that of a 64 year old man. In addition, no infrasound study or analysis was conducted. Due to the nature of infrasound, it carries farther than audible sound, and its health impacts to people and wildlife can be even more severe.</p>	<p>All regulation development activities are required to evaluate public health impacts as required under the Administrative Processes Act (APA) (§2.2-4007 et seq. of the Code of Virginia).</p> <p>However, the suggestion of a noise evaluation study and the potential impacts may be considered when the regulation is reopened for amendment in the future if the impacts are not otherwise covered by regulatory permit programs.</p>
-----------	----------------------	--	--



Comment Number	Commenter	Comment	Agency response
26	Jeffrey Scott	<p>REGULATORY SECTION: 90. Public participation</p> <p>CHANGE: It is important that the PBR process be as transparent as possible. I propose the following:</p> <p>Require the DEQ (and its agencies) and governmental agencies such as boards of supervisors, planning commissions, etc. to make publicly available all communications between them and the applicant without having to have FOIAs submitted</p> <p>REASON: In the Rocky Forge Wind application, a small group with limited resources that wanted to make sure that the applicant and county government or state agencies had made no secret arrangements or promises was forced to submit FOIA requests. In one case the FOIA request resulted in exorbitant fees and legal action.</p>	<p>The Virginia Freedom of Information Act (FOIA) (§2.2-3700 et seq. of the Code of Virginia) establishes the requirements for public records to be open to inspection. The Department of Environmental Quality adheres to the statutory requirements of FOIA. No change is needed to the regulation.</p>
27	Jeffrey Scott	<p>REGULATORY SECTION: 30. Application A. Requirements 13. Public review and comment</p> <p>CHANGE: The individuals who submit comments as part of the public comment period do not have any opportunity to question the validity of the applicant's responses. I propose the following:</p> <p>Persons who submit responses need to be given the opportunity to challenge an applicant's response</p> <p>The DEQ would provide the forum for the resolution of the challenge</p> <p>REASON: Many comments were submitted by the public as part of the Rocky Forge Wind PBR application, and many responses to those comments by Rocky Forge Wind were "non-responsive" or dismissive of the information presented by the commenter.</p>	<p>The department follows the requirements for regulation development as required in the Administrative Process Act (APA) (§2.2-4000 et seq. of the Code of Virginia) (Specifically, § 2.2-4007.02.)</p> <p>Changes to the public participation requirements in the PBR may be considered when the regulation is reopened for amendment in the future, however §10.1-1197.6 B 14 only requires a public comment period to be held prior to authorization of the project.</p>

Comment Number	Commenter	Comment	Agency response
28	Jeffrey Scott	<p>REGULATORY SECTION: General</p> <p>CHANGE: The Virginia Constitution states "it shall be the Commonwealth's policy to protect its atmosphere, lands and waters from pollution, impairment, or destruction, for the benefit, enjoyment and general welfare of the people of the commonwealth." Article XI, Section 1. The PBR regulation needs to be reviewed to determine if it is consistent with the constitutional requirements. I suggest the following:</p> <p>A review board be established to specifically review the PBR with respect to 1) omissions of requirements to insure constitutionality (for example there is nothing about the general welfare of the people), or 2) requirements that conflict with the Virginia Constitution</p> <p>REASON: The PBR was written to expressly encourage development of industrial wind. As seen in its first application, there are many issues with it, some of which raise concerns about its constitutionality.</p>	<p>As part of the periodic review, the regulation is reviewed by the Office of the Attorney General. The Office of the Attorney General has certified the agency has the authority to adopt this regulation.</p>
29	Jon Claunch	<p>Because the Small Renewable Wind Energy Project Permit By Rule (PBR) has inadequate and/or ineffective internal controls, it should be abolished. Internal controls were non-existent or not followed with the Rocky Forge Wind Energy Project in Botetourt County. DEQ leadership favored this project before the Botetourt County Board of Supervisors even evaluated or voted on it from a local standpoint, likely swaying the county's decision. In addition, the PBR has no means to independently verify or validate input submitted by wind project advocates using an unbiased subject matter expert, allowing invalid, inaccurate, or incomplete data to be easily submitted to obtain DEQ approval of wind energy projects having questionable benefit and likely environmental harm.</p>	<p>The department is required to establish and maintain a permitting program for wind renewable energy projects under Article 5 in Chapter 11.1 of Title 10.1 of the Code of Virginia. This law requires the department to permit wind renewable energy projects of a certain size provided, among other requirements, the local governing authority provides certification that the project comports with all local land use ordinances. The department followed the requirements under the current regulation for permitting such facilities. The requested independent verification is an additional requirement that is not authorized by the Code of Virginia.</p>

Comment Number	Commenter	Comment	Agency response
30	William F. Abell, Jr	The previous commenter Mr. Claunch is correct. This type of administrative procedure is easily manipulated to avoid accountability.	See response to Mr. Jon Claunch's comment #29.

### Effectiveness

*Pursuant to § 2.2-4017, please indicate whether the regulation meets the criteria set out in Executive Order 14 (as amended, July 16, 2018), including why the regulation is (a) necessary for the protection of public health, safety, and welfare, and (b) is clearly written and easily understandable.*

This regulation is necessary for the protection of public health, safety and welfare and is clearly written and easily understandable. The regulation provides a permitting process for wind energy projects with a rated capacity of less than 150MW that is protective of human health and the environment.

### Decision

*Please explain the basis for the rulemaking entity's decision (retain the regulation as is without making changes, amend the regulation, or repeal the regulation).*

The regulation is being retained. The regulation provides a permitting process for wind energy projects with a rated capacity of less than 150 MW that is protective to human health and the environment. The PBR provides a mechanism for applicants to evaluate and review natural resource impacts not otherwise covered under regulatory permit programs.

### Small Business Impact

*As required by § 2.2-4007.1 E and F of the Code of Virginia, include a discussion of the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation. Also, discuss why the agency's decision, consistent with the stated objectives of applicable law, will minimize the economic impact of regulations on small businesses.*

The regulation is needed to provide a permitting process for wind energy projects that is also protective of human health and the environment.

Comments were received during the public comment period. None of the comments submitted indicated the regulation is burdensome on small businesses.

The regulation details the permitting process, and a wind energy project is deemed to operate under the permit by rule provision if it meets the requirements of the regulation. Other permits may be required for the wind energy project.

This regulation does not overlap, duplicate, or conflict with federal or state law or regulations.

This regulation was adopted in 2010 and amended in 2013, 2015, and 2017. Since initial adoption, the regulation has been amended to maintain consistency with other regulations pertaining to PBRs developed for solar and combustion projects designed with a rated capacity not exceeding 150 MW. The regulation was also amended in 2017 to increase the size of a small renewable wind energy project from 100 MW to 150 MW allowing potentially more projects to be permitted by a permit by rule.