

**DEQ SOLAR ENERGY
REGULATORY ADVISORY PANEL
(SOLAR RAP)**

**DRAFT MEETING NOTES
RAP MEETING – THURSDAY, SEPTEMBER 9, 2010
DEQ CENTRAL OFFICE 2ND FLOOR CONFERENCE ROOM**

Meeting Attendees

<i>RAP Members</i>	<i>Interested Public</i>	<i>DEQ Staff</i>
Emil Avram - Dominion	Tom Fitzgerald - Lockheed Martin	Carol Wampler
Danette Poole - VA DCR	Eric Hurlocker - Williams Mullen	Debra Miller
Ken Jurman - DMME	Sarah Cosby - Dominion	
Robert Meyers - Northampton County		
Ray Fernald - VA DGIF		
Julie Langan - VA DHR		
Nikki Rovner - TNC		
John Hart - AEC Idom		
Larry Land - VACO		
Larry Jackson - APCO		
Rick Weeks - DEQ		

NOTE: The following Solar RAP Members were absent from the meeting: Tom Smith - DCR (Alternate Present); Tony Watkinson - VMRC; Ron Jenkins - DOF; Stephen Versen - VDACS; James Golden – DEQ; John Daniel - Troutman Sanders; Bob Bisha - Dominion (Alternate Present); Scott Sklar - Stella Group; Richard Good - Solar Services; Cathy Snyder - Lockheed Martin; Dan Holmes - PEC; Debra Jacobson - GWU; Larry Lombardi - Norfolk; Richard Street - Spotsylvania County

The meeting convened at 9:45am.

1. Welcome. (Carol Wampler)

Carol Wampler, RAP Leader and Meeting Facilitator, welcomed all of the meeting participants to the meeting and thanked them for all of their hard work. The issues of photovoltaic (PV) and concentrated photovoltaic cells (CPV) will be presented today.

2. Research Regarding Concentrated Photovoltaic Technology and Model Solar Ordinances. (Tom Fitzgerald, Lockheed Martin)

As Cathy Snyder was not able to attend today's RAP, Tom Fitzgerald presented the research that was put together regarding CPV. PV versus CPV was researched and he made contacts with solar companies regarding CPV. The data indicates that there is no additional environmental impact for CPV. The main difference is that CPV may be raised higher off the ground (20' to 30' high) and the posts that hold these panels may be five to six feet into the ground. Axis tracking CPV may become more viable in the future and for that technology, panels may be placed up to 40' off the ground.

Carol then asked the RAP if they had concerns with CPV being "lumped" with PV for the purposes of this regulation and if there was anything regarding CPV that should be discussed. The RAP noted the

following issues for discussion:

- The PBR regulation needs to consider how to deal with integrated PV and distributed PV. Integrated PVs actually incorporate PVs into building materials such as shingles. Distributed PV may place PVs on top of light poles throughout a city.
- New technology should not be discouraged by the PBR regulation. Carol reminded the group that regulations are periodically reviewed and as technology changes those concerns regarding new technology can be made during these reviews. Additionally, petitions to modify the regulation can also be made to the agency.

ACTION ITEM: DEQ - Is there a way to address new solar technologies within the regulations in a manner not to discourage its use?

- Why would solar energy projects be different from any other construction project as there are no specific environmental concerns such as there is with birds/bats and wind power?

The question to the group is whether CPV can be addressed under the PV category within the PBR regulation. The RAP agreed that CPV does not present any additional risk to resources than regular PV and, therefore, will be treated in the PV "bucket" for the purposes of this regulation. In fact, it was noted that impacts to resources for CPV may be less as a smaller area would produce more power. Additionally, it was noted that for the regulation, PV energy facilities may require less than the full PBR due to their lesser impacts; however, other solar technologies may require the full PBR unless it can be proven that the environmental impacts do not warrant a full PBR. This is another decision that the RAP will need to consider.

3. Review of Principles of Statutory Construction. (Nikki Rovner, TNC)

Nikki Rovner described the importance of statutory construction and its most pertinent rules, including issues that the RAP members will need to keep in mind. Statutory construction rules are rules that courts use to interpret legislation. It was noted that these are the rules we need to presume the legislators knew when this statute was developed. The point of statutory construction is that neither does the intent of the drafter matter nor the intent of the legislature. The language of the statute must stand on its own. For this renewable energy statute and all Virginia statutes, there is no legislative history, and there is no official record of legislative intent. In general, Virginia does not have statements of policy in our legislation, so we cannot presume to know why the legislature passed this law and therefore, when interpreting the statute, we must confine ourselves to the words on the page and rely on the plain meaning of those words. We must assume, also, that there was good drafting and no redundancy and every word of the statute has meaning. Additionally, throughout the Code of Virginia, one must assume that words used in the Code have the same meaning throughout the code, unless defined for that article only. If we do not know what something means, we can look at what it means in other sections. Of final note was the language of the regulation and its meaning.

Carol noted that during the Wind PBR process many of the issues regarding what the statute requires and what the language means were reviewed. For instance, mitigation can only be required for historic resources and wildlife in accordance with the statutory language even though other resources may be assessed.

4. Introductions. (Carol Wampler)

The RAP members introduced themselves and their affiliations.

5. Explanation of SCC Process and Small Renewable Energy Statutory Provisions. (Carol Wampler)

Carol explained the SCC process that is currently used for energy facilities. Once the PBR regulations are effective, this SCC's environmental impact review (EIR) process will be replaced by the PBR. Unlike the EIR, the requirements for a PBR are to be placed up front within the regulation. It will not be a case by case review of the projects. The PBR process will provide a more expedited and clearer process for developers in order to encourage renewable energy. The PBR process will also include consultation by DEQ with other natural resource agencies in order to determine sufficiency of the PBR application (this consultation is required by the statute).

Carol then explained the concept of consensus. Consensus may not be exactly what you want, but it is something that you can live with and support to outside interests. By participating in this process, once consensus is reached, then we each agree to these rules and are asked that no one go outside to act against the process.

6. Discussion of Possible Solar Provision. (facilitated by Carol Wampler)

a. Solar Panels on Buildings and Historic Resource Concerns

The issue of the requirements needed to place solar panels on buildings. The main concern regarding placement on buildings is the historic resource impact. The building itself may be a resource on the Virginia Landmarks Register (VLR), be eligible for placement on the VLR, or be located within a historic district. Any building over 50 years old may qualify and should be assessed for VLR eligibility. In any of these cases, the actual mechanism used to attach the panels would be of concern to DHR. It was noted in discussions that the DHR's requirements for historic resources are currently only applied when federal monies are used (Section 106). The question of federal tax credits was discussed as well.

***ACTION ITEM** - DEQ will ask OAG about the issue of tax credit and the impact on federal funding for DHR involvement.*

The RAP was reminded that not all buildings are a concern, what is being discussed here is only those that are or may be historic resources. For instance, if the building is not in a historic district and is less than 50 years old, then there are not HR concerns. Additionally, there are ways in the regulation to distinguish what is historic or not, what is private or federal, etc. through the use of applicability requirements.

Based on the information provided by DHR, the RAP had the following questions:

- Wouldn't the current process for historic resources management fulfill this concern?
 - There is no current process unless federal monies are used (Section 106) and this process may be beyond what we need to do for solar projects, especially PV/CPV.
- What if the building is not part of a facility and the energy generated is to be used for building use?
 - If the power generated would be less than perhaps 500 kW (net metering threshold), then it is likely that it would not be subject to the regulation. This will depend on what the threshold is set at for solar projects.

- Most historic resource managers do a very good job at managing the properties and understand the value of the visual impacts, so why is this a concern?
- What does DHR do when they are involved in this type of project and what is the process?
 - Response from DHR, it is a step-wise process:
 - DHR does not have good data for the entire state, which is why evaluation or surveys are necessary.
 - First, have to determine if what is there is historic? Area? Building?
 - Second, does it have historic value or significance?
 - If the answer is no, then there is no further evaluation.
 - If the answer is yes, then further evaluation is needed.
 - If there are impacts, then they will need to be managed as well.
 - Avoidance, if possible
 - Minimize, if cannot avoid
 - Finally, mitigate (reasonable and proportionate) if cannot minimize.
 - There is nothing that prohibits the impact, but the process includes evaluation of the impacts and if necessary mitigation may be necessary. For instance, if a historic resource building needed to be demolished, then it would have to be properly documented prior to that demolition.
- If there are no federal monies involved, then there are no requirements, correct?
 - Yes, that is true. If no federal money is used then there are no requirements. The process described above only applies to projects with federal funding and perhaps state funding.
- What about the issue of single family residence installation of solar panels on those properties for their own private use? In lieu of using a kW size, perhaps just exclude single family residences. As other "exclusions" are recommended, then they can be added.

Carol reminded the RAP the both DHR and DGIF do not have permitting authority; however, through our legislation we will be establishing a regulation and are, therefore, developing regulatory requirements for these resources. So it is up to this group to come up with recommendations of what should be required by state permit regulation for these resources in regards to small solar energy projects.

b. **Size** – 500 kW or smaller, > 500kW to 5 MW, > 5 MW to 100 MW

The group then discussed the size (rated capacity or estimated energy output) of a solar energy project that will be subject to some type of requirements under this regulation. The discussion centered on what regulatory requirements are necessary for solar energy projects.

The ideas presented included:

- Are there any requirements necessary for solar projects producing less than 500kW?
 - There are still historic resource concerns.
 - However, installation of solar panels for single family residence use only should have some type of exclusion provided.
- What if the upper limit is 100 kW for exclusion?
 - The RAP noted that an exclusion of <100kW should cover most single family residences so that should be workable.
- Are there requirements needed for those above 100 kW and below 500 kW?
 - Under the regulation for projects from 100 kW up to 500 kW, the requirements should be

minimal (submittal of notice and local government certification) and no substantive requirements.

A suggestion to look at the area used or acreage impacted by the solar project in lieu of energy output was made; however, for consistency, use of energy output is used as the statute uses electricity produced as a key to define a small renewable energy project. It was additionally noted that there are no other states with regulations for historic and natural resource impacts for solar energy so we have very few resources to rely on.

c. **Technology** - PV or CPV; other technologies

The RAP had previously recommended that CPV solar projects be categorized with PV for the purposes of the requirements needed under this regulation. The RAP was then asked what requirements would these PV category of projects need to meet? Full PBR requirements or a subset of these? If only a subset of the requirements are necessary, which ones? The RAP agreed that PV technology does not pose a great risk and it would be suitable to have them adhere to only a few substantive requirements. Due to the unique issues raised by DHR regarding historic resources, the desktop and evaluations may be necessary for historic resources. Wildlife may be easier to resolve.

For other solar technologies, a full PBR will be required (all 14 items) unless proper justification can be submitted to prove that a full PBR is not necessary for the project.

The RAP broke for lunch at 12:45pm

The meeting reconvened after lunch at 1:15pm

7. **Discussion of “Market Development for Renewable Energy and Energy Efficiency”** (White Paper Written by Jennifer Perkins, Graduate Intern) – Possible Additions or Changes Suggested by RAP Members

Carol opened the floor for discussion of a summary paper that was provided on market development for renewable energy. The RAP agreed that the summary was a starting point but needed to be expanded and more detail provided. It was noted that a disclosure was necessary on the paper as the ideas presented do not represent RAP consensus ideas but are a compilation of ideas of individual RAP members. Carol will look into the possibility of expanding on this work. RAP members were requested to provide comments on any issues noted regarding the information present in the white paper.

8. **Discussion of Possible Solar PBR Provisions** (continued from morning)

Based on discussions this morning, the following are the requirements needed based on solar energy project's size:

- For projects less than or equal to 100 kW, nothing will be required. This should cover most residential solar projects.
- For projects over 100kW and up to some other level (500 kW was suggested), the applicant will need to submit a notice and local government certifications. This is in line with the wind provision requirements for smaller projects (>500 kW to 5 MW).

- For projects above the 500 kW level, what regulatory requirements will be necessary? The "big" items are the analysis of wildlife and historic resources. Do we need all of the full PBR provisions for solar? Analysis, evaluation, and mitigation? T&E within disturbance zone?

A straw man providing preliminary ideas had been sent to the RAP for their consideration (see Attachment A). In this straw man, the following ideas were presented:

- For PV solar projects, require notice only when PV solar panels attached to or mounted on buildings; PV solar projects erected on Brownfield sites (will need to define Brownfield); or PV solar projects 500 kW and smaller (but above 100 kW)

Note: 200 sq ft/kilowatt output at noon is the conservative number for rooftops. 95% of all rooftops would be less than 100 kW (or 20,000 sq ft).

- For PV solar projects between greater than 500 kW and less than 5 MW built on a Greenfield site (will need to define Greenfield):
 - Submit the desktop surveys as described in 9VAC15-40-40.A.1 and 9VAC15-40-40.B.1. If the desktop surveys indicate the presence of T&E species within the disturbance zone, or of a known historic resource within the disturbance zone and within one-half mile of the boundary of the disturbance zone, then the applicant shall submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts on these resources.
- For PV solar projects over 5 MW on Greenfield sites:
 - .Submit desktop surveys as described above.
- For other solar technologies:
 - Require full PBR (as set forth for Wind PBR regulation), unless the applicant provides substantiation that the technology being used does not present significantly greater adverse impacts to wildlife and historic resources than does PV/CPV technology.

The straw man, along with the DHR comments, was reviewed. The RAP discussed the requirements needed for solar energy projects above the 500 kW size. The idea presented for historic resources was that within the disturbance zone both archaeological and architectural impacts will be evaluated through field surveys. For one half-mile around the disturbance zone, look at the view shed analysis for any VLR listed or eligible historic resource. The RAP discussed the merits of this idea. Based on that discussion, the following comments/concerns were noted in regards to these projects and the possible regulatory requirements:

- Solar should meet the same requirements as wind as it impacts natural resources.
- For solar, there is not as much a need to look beyond the disturbance zone as Solar does not have impacts beyond that area.
 - Maybe architectural considerations beyond the disturbance zone (view shed).
- DHR continued to note concerns regarding HR impacts both within the disturbance zone and outside the zone.
- County ordinances can be used for special conditions needed for local interests.
- Desktop analysis for historic resource identification does not work well as the data set is not complete; that is, not all historic resources have been identified.

- DGIF requests that wildlife desktop analysis evaluate a sea turtle nesting beach within or adjacent to the disturbance zone and if the project is sited in either Accomack or Northampton counties, then the applicant should submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts to resident or migratory birds within that area.
- Desktop may be suitable for wildlife but it may be necessary to do field surveys for historic resources. And if applicant must do historic resources field studies, he will have to hire a qualified consultant.
- Does seeing a solar project in the distance diminish the value of a historic resource (the Monticello example)?
- If the distance is set at one-half mile, then what do you do when there is a significant historic resource, like Monticello, outside the regulatory 1/2 mile view shed boundary? How would that be handled? That may be more of an issue for the local government.
- There has to be common sense in the application of the regulation. A boundary must be defined and what analysis, surveys, or evaluations are necessary to meet the requirements of the regulation also need to be defined.
- The issue was raised that this statute gave credence to natural resource impacts so these projects are not just like any other construction. Historic resources and wildlife impacts are mandated by this statute to be mitigated – if the department determines that a PBR is necessary, and if the department then determines pursuant to that PBR that significant adverse impacts are likely.
- View shed may be a problem with these projects as they can take up a large space and may be viewable from a distance.
- Impacts do not mean the project cannot be built; there just may be extra steps for resource mitigation.

As with wind projects, there are three steps to the impact determination process for historic resources or wildlife resources. These three steps are:

- 1st - Analysis of the resources to evaluate impacts.
- 2nd - Determination of impact based on analysis results
- 3rd - If impact, then there is mitigation.

During the analysis part, what area are we looking at to tell us there is an adverse impact? The regulation will set the standard for what is an adverse impact. There are resources that are not wildlife or historic and this regulation cannot address those, but they are still important.

The process being discussed is that:

- On-site within the disturbance zone, there will be:
 - Desktop Analysis for Wildlife
 - Architectural evaluation
 - Archeological survey
- Outside the disturbance zone, there will be:
 - View shed analysis up to how far away? One half mile is the proposal.

The RAP then discussed post-construction monitoring for solar projects. It was noted that for solar post-construction monitoring will not be necessary as most of the impacts are related to construction. The only issue may be the maintenance of vegetation under the panels, if that is needed due to some

mitigation effort.

It was suggested that while size can be used for determining what requirements are to be met, it may still be a good idea to have specific exclusions, such as a single family residence. However, DHR again noted concerns if the private dwelling was over 50 years old. The issue is that for privately owned buildings are not subject now to these requirements. Perhaps require a desktop to determine if they are or are eligible for historic resource or are within a historic district? Or just have them declare if they are or are not in a historic district (i.e., self-certify)?

The group was again reminded that while natural heritage resources are important, there is no statutory authority for impacts mitigation to these resources. They can be analyzed for impacts but nothing further. The analysis of these resources can be part of the desktop analysis. Rationale will be required for this or any other requirement.

9. Public Forum

No one signed up for the public forum.

10. Next Meeting

A doodle poll will be sent out to set-up the final meetings of this RAP.

The meeting was adjourned at 4:15pm.

Attachment A

Solar RAP Preliminary “Straw Man” Ideas

Ideas Circulated to Julie Langan & Ray Fernald

From: Carol Wampler

Date: September 1, 2010; revised September 2 regarding technologies other than PV; revised again September 7 to reflect comments from Julie & Ray

Suggest requiring notice only for:

1. PV solar panels attached to or mounted on buildings
2. PV solar projects erected on brownfield sites [*DGIF: need to define “brownfield”*]
3. PV solar projects 500 kW and smaller
Note: 500 kW was the benchmark used in Wind PBR. Same as net metering maximum for commercial establishments. May need to explore with RAP members whether this number is the best to use for solar.
 - John Hart kindly provided info that his company has done a project of 526 kW, for which the panels utilized 78,000 sq ft of space.
 - 200 sq ft/per one kilowatt output at noon is the conservative number for rooftops. 95% of all rooftops would be less than 100 kW (or 20,000 sq ft). Most of the remaining rooftops would range from 500 kW to 3 MW - likely rooftop or parking lot mounted systems. Scott Sklar

Question: What should we require regarding local government certification? In Wind PBR, projects 501 kW to 5 MW provide notice and local government certification; projects of 500 kW and less have no requirements at all.

[Note: DHR has concerns that desktop surveys will not adequately address historic resource concerns, primarily because not all historic resources have been previously identified. Traditionally, it is a developer who does field studies – both architectural and archaeological – to identify these resources. Based on the results of the field studies, mitigation may be appropriate. Julie and I discussed these issues at length, but we were not able to find a way to satisfy her concerns. We hope the RAP will give careful attention to these unresolved historic resource issues.]

For PV solar projects between 501 kW & 5 MW on Greenfield sites: [*DGIF: need to define “Greenfield”*]

Submit the desktop surveys described in 9VAC15-40-40 A 1 and 9VAC15-40-40 B 1. If the desktop surveys indicate the presence of T&E species within the disturbance zone, [*DGIF: of a sea turtle nesting beach within or adjacent to the disturbance zone*], or of known historic resources within the disturbance zone and within one-half mile of the boundary of the disturbance zone, then the applicant shall submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts on these resources. (Regulatory references are to

proposed Wind PBR 9 VAC 15-40) [DGIF: *If the project is sited in Accomack or Northampton counties, then the applicant shall submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts to resident or migratory birds.*]

For PV solar projects over 5 MW on Greenfield sites:

Same as above.

I have no basis for suggesting more requirements than what is suggested in paragraph above. (In fact, some RAP members are likely to contend that the requirements above are not warranted.) There do not appear to be any greater impacts on wildlife or historic resources from solar projects than from any other type of development (e.g., housing developments or planned unit developments, which might cover approximately same number of acres).

Additional note: Large solar project development on Greenfield sites in Virginia appears unlikely; solar projects are probably not the “highest and best use” (financially) for areas of the state that have appropriate topography and sun resources.

For other solar technologies:

Require full PBR (as set forth for wind projects, unless RAP indicates need for modification), unless the applicant provides substantiation that the technology being used does not present significantly greater adverse impacts to wildlife and historic resources than does PV technology.

Some Draft Language (based on proposed Wind PBR language):

ANALYSIS

Desktop survey for wildlife: 9VAC15-40-40 A 1 (proposed)

Desktop surveys and maps. The applicant shall obtain a wildlife report and map generated from DGIF’s Virginia Fish and Wildlife Information Service or Wildlife Environmental Review Map Service web-based application (9VAC15-40-120 B 3) of the following: (i) known wildlife species and habitats on the site and within two (2) miles of the boundary of the site; (ii) known bat hibernacula on the site and within five (5) miles of the boundary of the site; (iii) known maternity and bachelor bat colonies on the site and within twelve (12) miles of the boundary of the site; and (iv) known or potential sea turtle nesting beaches located within one (1) mile of the disturbance zone.

Desktop for historic resources: 9VAC15-40-40 B 1 (proposed)

Compilation of known historic resources. The applicant shall gather information on known historic resources within the disturbance zone and within five (5) miles of the disturbance zone boundary and present this information on **a topographic map** [DHR: *Since the solar project applicant will not be doing the context map, we can delete the following phrase in favor of the preceding one – “the context map referenced in 9VAC15-40-70 B, or as an overlay to this context map, as well as in tabular format”*].

DETERMINATION

9VAC15-40-50. Determination of likely significant adverse impacts.

- A. The department shall find that significant adverse impacts to wildlife are likely whenever the wildlife analysis prescribed in 9VAC15-40-40 A 1 documents that state-listed T&E wildlife are found to occur within the disturbance zone; or the disturbance zone is located on or within one (1) mile [adjacent?] of a known or potential sea turtle nesting beach; or the project is located in part or in whole within Accomack County or Northampton County.

- B. The department shall find that significant adverse impacts to historic resources are likely whenever the historic resources analysis prescribed by 9VAC15-40-40 B 1 indicates that the proposed project is likely to diminish significantly any aspect of a historic resource's integrity. [CCW: known historic resource is within the disturbance zone or within ½ mile of the boundary of the disturbance zone]

MITIGATION

9VAC15-40-60. Mitigation plan. (based on proposed wind PBR)

- A. If the department determines that significant adverse impacts to wildlife or historic resources or both are likely, then the applicant shall prepare a mitigation plan. The mitigation plan shall include a description of the affected wildlife or historic resources or both and the impact to be mitigated, a description of actions that will be taken to avoid the stated impact, and a plan for implementation. If the impact cannot reasonably be avoided, the plan shall include a description of actions that will be taken to minimize the stated impact, and a plan for implementation. If neither avoidance nor minimization is reasonably practicable, the plan shall include a description of other measures that may be taken to offset the stated impact, and a plan for implementation. [CCW: do we still need to include this intro paragraph? Can we strike it in favor of the paragraph below?]

- B. For impacts to wildlife and for impacts to historic resources, the applicant shall submit a mitigation plan detailing reasonable and proportionate mitigation actions to avoid, minimize, or offset adverse impacts on these resources.

Guidance:

For T&E: best practices

For sea turtle nesting: procedures listed in wind PBR

For birds in Accomack & Northampton: ?

[CCW: no need for post-construction monitoring?]

C. If we separate out historic resources from wildlife, these are the proposed (wind) historic resources mitigation provisions:

1. Significant adverse impacts to VLR-eligible or VLR-listed architectural resources shall be minimized, to the extent practicable, through design of the wind energy project or the installation of vegetative or other screening.
2. If significant adverse impacts to VLR-eligible or VLR-listed architectural resources cannot be avoided or minimized such that impacts are no longer significantly adverse, then the applicant shall develop a reasonable and proportionate mitigation plan that offsets the significantly adverse impacts and has a demonstrable public benefit and benefit for the affected or similar resource.
3. If any identified VLR-eligible or VLR-listed archaeological site cannot be avoided or minimized to such a degree as to avoid a significant adverse impact, significant adverse impacts of the project will be mitigated through archaeological data recovery.

D. Other resources? (Natural Heritage Resources and Scenic Resources in Wind PBR)

SELECTED DEFINITIONS & GENERAL PROVISIONS

"Disturbance zone" means the area within the site directly impacted by construction and operation of the wind energy project, and within 100 feet of the boundary of the directly impacted area.

"Historic Resource" means any prehistoric or historic district, site, building, structure, object, or cultural landscape which is included or meets the criteria necessary for inclusion in the Virginia Landmarks Register pursuant to the authorities of § 10.1-2205 of the Code of Virginia and in accordance with 17VAC5-30-40 through 17VAC5-30-70.

"Interconnection point" means the point or points where the wind energy project connects to a project substation for transmission to the electrical grid.

"Site" means the area containing a wind energy project that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.

"Small renewable energy project" means (i) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from sunlight, wind, falling water, wave motion, tides, or geothermal power, or (ii) 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.

"Small wind energy project" or "wind energy project" or "project" means a small renewable energy project that (i) generates electricity from wind, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and buildings, including substations, post-construction meteorological towers, electrical infrastructure, and other appurtenant structures and facilities within the boundaries of the site; and (ii) is designed for, or capable of, operation at a rated capacity equal to or less than 100 megawatts. Two or more wind energy projects otherwise spatially separated but under common ownership or operational control, which are connected to the electrical grid under a single interconnection agreement, shall be considered a single wind energy project. Nothing in this definition shall imply that a permit by rule is required for the construction of meteorological towers to determine the appropriateness of a site for the development of a wind energy project.

"T&E" or "state threatened or endangered species" or "state-listed species" means any wildlife species designated as a Virginia endangered or threatened species by DGIF pursuant to the §29.1-563-570 of the Code of Virginia and 4VAC15-20-130.

"VLR" means the Virginia Landmarks Register (9VAC15-40-120 A 1).

"VLR-eligible" means those historic resources that meet the criteria necessary for inclusion on the VLR pursuant to 17VAC5-30-40 through 17VAC5-30-70 but are not listed in VLR.

"VLR-listed" means those historic resources that have been listed in the VLR in accordance with the criteria of 17VAC5-30-40 through 17VAC5-30-70.

"Wildlife" means wild animals; except, however, that T&E insect species shall only be addressed as part of natural heritage resources, and shall not be considered T&E wildlife.

9VAC15-40-30. Application for permit by rule for wind energy projects.

A. The owner or operator of a small wind energy project with a rated capacity greater than 5 megawatts shall submit a complete application to the department, in which he satisfactorily accomplishes all of the following:

1. In accordance with § 10.1-1197.6 B 1 of the Code of Virginia, and as early in the project development process as practicable, furnishes to the department a notice of intent, to be published in the Virginia Register, that he intends to submit the necessary documentation for a permit by rule for a small renewable energy project;

2. In accordance with § 10.1-1197.6 B 2 of the Code of Virginia, 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.

3 & 4 = interconnection studies and agreements

5 = PE certifies not over 100 MW

6 = impacts on NAAQS

7. In accordance with § 10.1-1197.6 B 7 of the Code of Virginia, furnishes to the department, where relevant, an analysis of the beneficial and adverse impacts of the proposed project on natural resources. The owner or operator shall perform the analyses prescribed in 9VAC15-40-40. For wildlife, that analysis shall be based on information on the presence, activity, and migratory behavior of wildlife to be collected at the site for a period of time dictated by the site conditions and biology of the wildlife being studied, not exceeding 12 months;

8. In accordance with § 10.1-1197.6 B 8 of the Code of Virginia, furnishes to the department a mitigation plan pursuant to 9VAC15-4060 that details reasonable actions to be taken by the owner or operator to avoid, minimize, or otherwise mitigate such impacts, and to measure the efficacy of those actions; provided, however, that the provisions of 9VAC15-40-30 A 8 shall only be required if the department determines, pursuant to 9VAC15-40-50, that the information collected pursuant to § 10.1-1197.6 B 7 of the Code of Virginia and 9VAC15-40-40 indicates that significant adverse impacts to wildlife or historic resources are likely. The mitigation plan shall be an addendum to the operating plan of the wind energy project, and the owner or operator shall implement the mitigation plan as deemed complete and adequate by the department. The mitigation plan shall be an enforceable part of the permit by rule;

9 = PE certifies design

10 = operating plan (operated in compliance with mitigation plan)

11 = site plan

12. In accordance with § 10.1-1197.6 B 12 of the Code of Virginia, furnishes to the department a certification signed by the applicant that the small wind energy project has applied for or obtained all necessary environmental permits;

13 = public comment period and public meeting

14. In accordance with 9VAC15-40-110, furnishes to the department the appropriate fee.

“De Minimis” from Wind PBR (proposed)

Notification and Other Provisions for Projects of Five (5) Megawatts and Less

9VAC15-40-130. Small wind energy projects of 5 megawatts and less.

A. The owner or operator of a small wind energy project with a rated capacity equal to or less than 500 kilowatts is not required to submit any notification or certification to the department.

B. The owner or operator of a small wind energy project with a rated capacity between 501 kilowatts and 5 megawatts shall:

1. Notify the department by submitting a certification by the governing body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances and applicable local government requirements;

2. Submit the desktop surveys described in 9VAC15-40-40 A 1 and 9VAC15-40-40 B 1; if the desktop surveys indicate the presence of T&E species within the disturbance zone, or of known historic resources within the disturbance zone and within one-half mile of the boundary of the disturbance zone, then the applicant shall submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts on these resources.

The following provision had consensus support from the Offshore/Coastal RAP, except for one negative vote:

3. For projects located in part or in whole within zones 1, 2, 3, 4, 5, 10, 11, 12, or 14 on the Coastal Avian Protection Zones map, contribute \$1000.00 per megawatt of rated capacity, or partial

megawatt thereof, to a fund designated by the department in support of scientific research investigating the impacts of projects in Coastal Avian Protection Zones on avian resources.]