



## Virginia Department of Planning and Budget **Economic Impact Analysis**

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**9 VAC 15□60 Small Renewable Energy Projects (Solar) Permit by Rule**  
**Department of Environmental Quality**  
**Town Hall Action/Stage: 5216 / 8923**  
May 22, 2020

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### **Summary of the Proposed Amendments to Regulation**

The Department of Environmental Quality (DEQ) proposes numerous amendments to the regulation concerning: 1) fees, 2) ecological cores (primarily forests), 3) threatened and endangered insects, 4) planting to attract pollinators, 5) historic resources, 6) timeframes, 7) projects with reduced requirements, and 8) clarifications.

### **Background**

Prior to 2012, the only route to obtaining a permit to construct and operate a solar energy project was through the State Corporation Commission (SCC). Pursuant to Chapters 808 and 854 of the 2009 Acts of Assembly,<sup>1</sup> DEQ promulgated 9 VAC 15□60 *Small Renewable Energy Projects (Solar) Permit by Rule* in 2012. Permit by rule (PBR) is defined in the regulation as “provisions of the regulations stating that a project or activity is deemed to have a permit if it meets the requirements of the provision.” The 2009 legislation allowed DEQ to issue such permits for solar projects with an electricity generating rated capacity not exceeding 100 megawatts (MW). Legislation in 2017 increased that maximum to 150 MW.<sup>2</sup> The first solar project was permitted by rule in 2015. Thus far more than 50 PBR permits or modifications have been granted.<sup>3</sup>

The PBR process allows developers to apply to construct and operate a small solar project when the PBR application meets the regulatory criteria. DEQ has 90 days from the

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<sup>1</sup> See Chapter 808: <https://lis.virginia.gov/cgi-bin/legp604.exe?091+ful+CHAP0808+hil>

<sup>2</sup> See Chapter 368 <https://lis.virginia.gov/cgi-bin/legp604.exe?171+ful+CHAP0368+hil>

<sup>3</sup> Source: DEQ

application submittal date to determine if a PBR application is “complete” or “incomplete.” Construction cannot begin until the PBR application has been determined to be “complete.” Developers must include with the application analyses of preconstruction wildlife, historic resources, and natural heritage resources. If DEQ finds that the project as proposed would likely result in significant adverse impact to either specified wildlife or historic resources, the developer is required to include an acceptable mitigation plan as a component of the application. If DEQ determines that the mitigation plan is inadequate to protect the resource, DEQ provides specific information to the applicant to identify necessary requirements for the plan to be approved.

The primary advantage of obtaining a permit through the PBR process is that DEQ has a maximum of 90 days to determine whether the submitted application is complete (i.e. approved). Construction can commence once the application is deemed complete. In contrast, there is no fixed timeframe for application review through SCC.

Each application for a PBR and each modification of a PBR is a separate action and is assessed a separate fee. Under the current regulation, the fees for a permit application or modification are listed in Table 1. There is no maintenance fee.

Table 1: Current Fees

Type of Action	Fee
PBR application: >5 MW up to and including 25 MW	\$8,000
PBR application: >25 MW up to and including 50 MW	\$10,000
PBR application: >50 MW up to and including 75 MW	\$12,000
PBR application: >75 MW up to and including 150 MW	\$14,000
PBR modification >5 MW up to and including 150 MW	\$4,000

The developer of a solar energy project with either a rated capacity greater than 500 kilowatts (KW) and less than or equal to five MW, or a disturbance zone<sup>4</sup> greater than two acres and less than or equal to 10 acres, must notify DEQ and submit a certification by the governing

<sup>4</sup> Disturbance zone is defined as “the area within the site directly impacted by land-disturbing activity including construction and operation of the solar energy project and 100 feet from the boundary of the directly impacted area.”

body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances. These projects would not be subject to any other requirements of the regulation.

The developer of a solar energy project is not required to submit any notification or certification, nor be subject to any other requirements of the regulation, if he meets at least one of the following criteria:

1. The small solar energy project has either a rated capacity equal to or less than 500 KW or a disturbance zone equal to or less than two acres; or
2. The small solar project falls within at least one of the following categories, without regard to the rated capacity or the disturbance zone of the project:
  - a. The small solar energy project is mounted on a single-family or duplex private residence.
  - b. The small solar energy project is mounted on one or more buildings less than 50 years old or, if 50 years of age or older, have been evaluated and determined by the Department of Historic Resources (DHR) within the preceding seven years to be not eligible for listing in the Virginia Landmarks Register.
  - c. The small solar energy project is mounted over one or more existing parking lots, existing roads, or other previously disturbed areas and any impacts to undisturbed areas do not exceed an additional two acres.
  - d. The small solar energy project utilizes integrated photovoltaic<sup>5</sup> only, provided that the building or structure on which the integrated photovoltaic materials are used is less than 50 years old or, if 50 years of age or older, has been evaluated and determined by DHR within the preceding seven years to be not eligible for listing in the Virginia Landmarks Register.

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<sup>5</sup> Photovoltaic is defined as “materials and devices that absorb sunlight and convert it directly into electricity by semiconductors.”

## Estimated Benefits and Costs

### *Fees*

The fees collected thus far have fallen well short of the costs of administering and enforcing the regulation. Thus, DEQ proposes higher application fees, and new fees for: 1) notice of intent (NOI) to submit documentation for a permit, 2) application review after receipt of an incomplete determination, and 3) annual permit maintenance. NOI is required at least 90 days prior to submission of the application and is already required in the current regulation. Only the proposed fee is new. According to the agency, 12 percent of applications received thus far were deemed incomplete. These were cases where the applicant had not responded or provided the required information within the statutory 90-day review timeframe. Ongoing costs are incurred by the agency such as for inspections and monitoring to ensure compliance with this regulation. The proposed new annual permit maintenance fee would apply to those costs.

The following are the proposed fees related to permit applications or modifications that are submitted after the effective date of the proposed regulation.

Table 2: Proposed Application-related and Modification Fees

Type of Action	Fee
Notice of intent to submit documentation for a permit	\$2,000
PBR application: >5 MW up to and including 20 MW	\$7,500 base fee plus \$150 per MW
PBR application: >20 MW up to and including 150 MW	\$7,500 base fee plus \$165 per MW
PBR modification >5 MW up to and including 150 MW	20% of original application fee
Incomplete fee: assessed for application review after receipt of an incomplete determination	\$4,000

For projects that are large enough to generate fees,<sup>6</sup> the cost of the application fee combined with the NOI fee would be higher in the proposed regulation versus the current

<sup>6</sup> Projects with capacity of 5 MW or less are not assessed any fees in both the current and proposed regulations.

regulation regardless of the electricity generating rated capacity of the project. Table 3 shows the differences for sample megawatt levels.

Table 3: Comparison of Current and Proposed Application plus NOI Fees

Megawatts	Current <sup>7</sup>	Proposed <sup>8</sup>	Difference
10	\$8,000	\$11,000	\$3,000
30	\$10,000	\$14,450	\$4,450
50	\$10,000	\$17,750	\$7,750
70	\$12,000	\$21,050	\$9,050
90	\$14,000	\$24,350	\$10,350
110	\$14,000	\$27,650	\$13,650
130	\$14,000	\$30,950	\$16,950
150	\$14,000	\$34,250	\$20,250

As can be seen in Table 4, the proposed modification fee (20% of application fee) is higher than the current \$4,000 modification fee for projects 76 MW and higher, and lower than the current \$4,000 modification fee for projects 75 MW and lower.

Table 4: Comparison of Current and Proposed Modification Fees

Megawatts	Current	Proposed	Difference
10	\$4,000	\$1,800	-\$2,200
30	\$4,000	\$2,490	-\$1,510
50	\$4,000	\$3,216	-\$784
75	\$4,000	\$3,975	-\$25
76	\$4,000	\$4,008	\$8

<sup>7</sup> Only includes application fee since there is no NOI fee in the current regulation.

<sup>8</sup> Includes NOI fee; does not include incomplete fee.

90	\$4,000	\$4,470	\$470
110	\$4,000	\$5,130	\$1,130
130	\$4,000	\$5,790	\$1,790
150	\$4,000	\$6,450	\$2,450

All projects that are permitted after the effective date of the proposed regulation would be assessed an annual permit maintenance fee. No maintenance fee would be assessed for projects that were permitted prior to the effective date of the proposed amendments. The initial annual permit maintenance fee would be comprised of a base fee of \$500 plus \$15 per MW of the project. Maintenance fees would be adjusted annually based on the Consumer Price Index. Table 5 shows what the annual permit maintenance fees would be for the first year for a sample of megawatt levels.

Table 5: Annual Permit Maintenance Fee (First Year)

Megawatts	Fee	Megawatts	Fee
10	\$650	90	\$1,850
30	\$950	110	\$2,150
50	\$1,250	130	\$2,450
70	\$1,550	150	\$2,750

It appears that the higher fees are necessary to maintain the small solar project PBR program that ensures protection of existing environmental and historic resources, while permitting the construction and operation of clean energy projects. It is possible that the proposed higher application fees and new NOI and annual permit maintenance fees could potentially discourage some developers from pursuing some solar projects that would have been pursued under the current fee structure, or reduce their electricity generating rated capacity to less than or equal to five MW to avoid owing any fee, or choose to pursue the project in a different state. Alternatively, some developers may decide that with the proposed higher fees that

applying for a permit through SCC may be preferable despite the advantage of the guaranteed 90-day determination. SCC does not assess permitting fees for solar projects.<sup>9</sup>

*Ecological Cores: Adverse Impact and Mitigation*

The Department of Conservation and Recreation (DCR) and the Department of Forestry have indicated that the impact to forest lands from proposed solar projects, particularly projects east of I-95 which have a greater impact to the Bay watershed, are of vital importance both from an environmental and economic perspective and should be assessed during the project development process. The Virginia Natural Heritage Program in DCR has developed a network of natural lands for the Commonwealth. This project, named the Virginia Natural Landscape Assessment (VaNLA), is a landscape-scale geospatial analysis used for identifying, prioritizing, and linking natural lands in Virginia. Using land cover data derived from satellite imagery, the VaNLA identifies large patches of natural land with at least one hundred acres of interior cover. This interior cover, known as core area, begins one hundred meters from patch edges. Small patches with ten to ninety-nine acres of interior cover are included as habitat fragments that support landscape corridors and that may be important in localities with few large patches of natural land.

Core areas and habitat fragments are referred to collectively as “ecological cores.” Although the VaNLA is predominantly an analysis of forests, ecological cores include marshes, dunes, and beaches where these covers are abundant and exceed minimum size requirements. Over fifty attributes are assigned to the ecological cores providing information about rare species and habitats, environmental diversity, species diversity, patch characteristics, patch context, and water quality benefits. The ecological cores ranked highest for these attributes are called C1 and C2.

DEQ proposes to require that for applications submitted more than 12 months after the effective date of the proposed regulation, that the application include a preconstruction desktop survey of VaNLA ecological cores within the disturbance zone conducted within six months prior to the date of the application submittal. DCR could do this work for the applicant at a charge. According to DCR, depending on the complexity of the project, analysis, review, and

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<sup>9</sup> Source: SCC

recommendations would take an estimated four to eight hours, and in some cases more time. The cost to the applicant for DCR staff time would be \$60 per hour. Thus, the cost would be approximated \$240 to \$480 per project application.

If it is determined that ecological cores ranked C1 or C2 occur within the disturbance zone, significant adverse impacts will be deemed likely. The applicant, if he chooses to go forward using that specific plot of land, would be required to prepare a mitigation plan. The proposed regulation specifies that mitigation measures for significant adverse impacts to natural heritage resources described in VaNLA ecological cores shall include all reasonable measures to avoid and minimize significant adverse impacts. The applicant shall demonstrate in their mitigation plan what significant adverse impacts cannot practicably be avoided and why additional proposed actions are reasonable. Additional proposed actions shall include practices to minimize or offset significant adverse impact through activities to protect, restore or enhance the affected or similar resource. DCR's three suggested mitigation activities to be used when C1 and C2 cores cannot be avoided are: afforestation (restoration), avoided deforestation (preservation), and forest enhancement.

Afforestation (restoration) consists of converting open land to forest by planting native trees appropriate for the ecoregion in which the impact being mitigated for occurred. This activity offsets the forest conversion that occurs in the project footprint by creating additional forestland. The planted acres should be protected from conversion to any other land use in perpetuity through the use of a protective instrument that overlays the mitigation acreage.

Avoided deforestation (preservation) consists of permanently protecting existing forested habitat on private lands from conversion to other land uses. This activity offsets clearing and fragmentation impacts by ensuring that other nearby forestland that could otherwise be at risk of conversion will be maintained in forestland in perpetuity. As with afforestation acres, this mitigation activity requires that a perpetually protective instrument overlay the mitigation acreage. These protected forest acres remain as forest, although harvesting timber may be allowed as long as the harvested area is allowed to regrow as forest or is replanted.

Forest enhancement consists of implementing appropriate silvicultural practices that result in the improvement of ecological functions of forests on public and private lands. This mitigation activity offsets fragmentation impacts by increasing the ecological integrity of nearby



forests. The forest improvement achieved should persist for a “significant period of time” or until the lift in ecological value is sustainable with little or no management.

Mitigation costs would vary greatly on a project by project basis depending on the project size, project location, ecological cores impacts, etc. DCR has estimated mitigation costs using afforestation, avoided deforestation, and forest enhancement for four different examples with different attributes. With these four examples, DCR found total mitigation costs of \$45,131, \$121,288, \$459,319, and \$701,194 respectively. The variance in mitigation cost appears to depend upon the number of acres in each affected core, whether the impacts were direct or indirect, and whether the affected area was in the interior or exterior part of a core. Alternatively, if the project could be located on land without C1 or C2 cores, these specific costs could be avoided.

#### *Threatened & Endangered Insects: Adverse Impact and Mitigation*

The current and proposed regulations both state that DEQ shall find that significant adverse impacts to wildlife are likely whenever state-listed threatened and endangered (T&E) wildlife are found to occur within the disturbance zone. However, the current regulation excludes T&E insects from the T&E wildlife definition. The agency proposes to expand this, by specifying that 12 months after the effective date of the proposed regulation T&E insect species would also be considered T&E wildlife. Thus, for applications submitted 12 months after the effective date of the proposed regulation, the presence of T&E insects in the disturbance zone would trigger the determination that adverse impacts to wildlife are likely.

Both the current and proposed regulations state that for state-listed T&E wildlife, the applicant shall take all reasonable measures to avoid significant adverse impacts or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided and why additional proposed actions are reasonable. These additional proposed actions may include best practices to avoid, minimize, or offset adverse impacts. An estimate of the cost of taking such actions for mitigation is not currently available.

#### *Pollinator/Bird Habitat Scorecard*

DEQ and DCR have developed a program to encourage pollinator-friendly solar energy developments throughout the Commonwealth. The program is referred to as the Virginia Pollinator-Smart Solar Industry (paraphrased hereafter as “Pollinator-Smart program”). A

Pollinator-Smart solar facility is one that meets performance standards outlined in the most current release of the Virginia Pollinator Smart/Bird Habitat Scorecard (Scorecard). Solar sites that meet the minimum requirement of 80 points on the Scorecard are considered “Certified Virginia Pollinator-Smart,” those that score 100 or more points are considered “Gold Certified Virginia Pollinator-Smart.” The scorecard can be viewed at the following URL: <https://www.dcr.virginia.gov/natural-heritage/document/solar-site-pollinator-bird-habitat-scorecard-a-new.pdf>. The majority of points on the scorecard result from planting pollinator-friendly plants.

DEQ proposes to require that the applicant submit a completed scorecard with the application. The agency believes it would take approximately 45 minutes for the applicant to complete. Certification would not be required, and a low score would not prompt mitigation. DEQ believes that many applicants would seek to have a high score because it would be good for public relations. Additionally, a paper<sup>10</sup> from Yale University Center for Business and the Environment finds that that pollinator-friendly solar may generate private benefits to solar developers that justify its adoption without policy intervention. These benefits largely flow from higher energy output, from panel efficiency gains attributed to the cooler microclimate created by perennial plantings. A small added benefit accrues from the lower operations and maintenance costs over the project lifetime thanks to the reduced frequency of mowing for native pollinator-friendly plants as compared to turfgrass. By requiring that the scorecard be completed, with greater possibility that developers learn about the potential benefits to their business as well as the environment, applicants may be more likely to pursue a pollinator-friendly project.

The Yale study also points out that pollinator-friendly solar results in positive externalities such as more groundwater recharge and a greater reduction in soil erosion than conventional solar. Additionally, pollinator-friendly solar contributes another sizable social benefit in the form of increased crop yields when projects are sited near pollinator-dependent farmland.

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<sup>10</sup> See <https://cbey.yale.edu/research/maximizing-land-use-benefits-from-utility-scale-solar>

*Historic Resources*

The existing and proposed regulations both require that the applicant conduct an architectural field survey of all architectural resources, including cultural landscapes 50 years of age or older within the disturbance zone and within one-half mile of the disturbance zone boundary, and an evaluation of the eligibility of any identified resource for listing in the Virginia Landmarks Register. Practically speaking, this may be conducted by an outside firm with relevant expertise.

DEQ proposes to state in the proposed regulation that the architectural survey area may be refined by the applicant based on an analysis to exclude areas that have no direct view to the project. This could save expenditures for the applicant. According to DHR, the cost savings for refining the study area would be highly variable depending on the population density of the area (and number of associated buildings and structures) and degree to which the study area can be refined. DHR expects average savings to be in the single-digit thousands of dollars.

The existing and proposed regulations both require that the applicant conduct an archaeological field survey of the disturbance zone and an evaluation of the eligibility of any identified archaeological site for listing in the Virginia Landmarks Register. This may also be conducted by an outside firm with relevant expertise.

DEQ proposes to state in the proposed regulation that to streamline archaeological investigations, the survey may be guided by a research design that utilizes a probability assessment or predictive modeling. Such a research design shall be approved by DEQ and DHR for use in the project prior to conducting the fieldwork. This would also potentially reduce expenditures for the applicant. DHR points out that the cost-savings would be highly variable depending on the existing conditions, site probability, and degree to which the study area can be refined. DHR expects savings to be in the high single-digit thousands to low tens of thousands of dollars.

The current regulation allows that as an alternative to performing this archaeological survey, the applicant may make a demonstration to DEQ that the project will utilize nonpenetrating footings technology and that any necessary grading of the site prior to construction does not have the potential to adversely impact any archaeological resource. According to DEQ, this approach could still result in significant negative impacts to cultural

resources. In practice there have been lengthy delays in permitting due to incomplete mitigation plans for cultural resources when this approach has been followed. Consequently, the agency proposes to eliminate this option.

All of the proposed amendments in this section only apply to applications submitted more than 12 months after the effective date of the proposed regulation.

### *Timeframes*

According to DEQ, the absence of certain timeframes within the regulation has been problematic. The agency proposes to establish several new timeframes, including adding that the authorization to construct and operate shall become invalid if (i) a program of continuous construction or modification is not begun within 60 months from the date the PBR or modification authorization is issued; or (ii) a program of construction or modification is discontinued for a period of 24 months or more, except for a DEQ-approved period between phases of a phased construction project. With large gaps in time between analyses and construction, conditions on the ground may have significantly changed and the analysis may no longer be accurate. If authorization is deemed invalid, new fees and application documents would have to be submitted if the developer did eventually decide to pursue the project.

Under the current regulation, reporting change of ownership must be done at least 30 days prior to the change. According to the agency, industry has indicated that it is difficult to predict ownership transactions prior to the actual date and requested that notification occur after the transaction was complete. Since DEQ has no objection to receiving the information shortly afterwards, it proposes to change the requirement to within 30 days. This would make reporting easier for the applicant.

Developers are currently required to submit post-construction site maps, but no deadline is indicated. With no deadline, DEQ has had problems enforcing their submission, which hinders their ability to ensure good practices. The agency proposes to require that the post-construction site maps be submitted within six months from the beginning of operation.

For applications submitted more than 12 months after the effective date of the proposed regulation, DEQ proposes to require that DHR provide comments on a complete historical resource analysis within 30 days. If it does not, the applicant may assume DHR concurrence with

the recommendations of the study or analysis and proceed accordingly. This is beneficial for applicants and DHR does not object.

#### *Projects with Reduced Requirements*

DEQ proposes to clarify that projects proposed for previously disturbed land or brownfields that do not impact more than 10 acres, regardless of megawatt capacity, must only notify DEQ and submit 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. These projects would not be subject to any other requirements of the regulation. DEQ reports that this approach is currently allowed but is not clearly delineated in the existing regulation. Therefore, to the extent that the availability of this approach has not been widely known, this proposed amendment may encourage development on previously disturbed land, protecting additional forest lands or prime agricultural land.

DEQ also proposes to increase the maximum rated capacity where the applicant is not required to submit any notification or certification to the department from 500 KW to one MW. According to the agency, this proposed amendment is at the request of the Department of Mines, Minerals and Energy to align with the nonresidential net metering requirements. This would moderately reduce costs for projects with capacity greater than 500 KW and less than or equal to 1 MW.

#### **Businesses and Other Entities Affected**

Solar project developers who submit applications more than 12 months after the effective date of the proposed regulation are likely to be most affected by the proposed regulation, since some of the proposed amendments only apply for this category of developer. Solar developers who submit applications after the effective date of the proposed regulation, but before 12 months after the effective date, would not be subject to some proposed changes such as required mitigation for the presence C1 or C2 cores or T&E insects in the disturbance zone; but they would be subject to other amendments including the new fee structure. Solar projects permitted prior to the effective date of the proposed regulation would not be subject to most of the proposed amendments, but would be subject to some, such as the proposed new modification fee and change in deadline to report change in ownership. According to DEQ, there are 63 projects that have active notices of intent to submit the documentation for a PBR.

Firms involved in the manufacture or distribution of solar equipment, consultants involved in environmental assessments or cultural resource evaluations, businesses that help with mitigation, sellers of installers of pollinator-friendly plants, and other ancillary businesses affiliated with the solar industry (such as law firms, etc.) may also be affected the proposed regulation.

### **Small Businesses Affected:**

#### Types and Estimated Number of Small Businesses Affected

Many of the firms described above likely qualify as small businesses, but DEQ does not have an estimated number.<sup>11</sup>

#### Costs and Other Effects

The proposals to restructure fees and require mitigation for projects that would go forward on land containing C1 and C2 and T&E insects may increase costs for some small solar project developers. In contrast, the proposals to allow the architectural survey area to be refined by the applicant based on an analysis to exclude areas that have no direct view, and to allow the archaeological survey to be guided by a research design that utilizes a probability assessment or predictive modeling, would likely reduce cost for small solar project developers.

The proposal to require mitigation for projects that would go forward on land containing C1 and C2 and T&E insects may increase revenue for some small firms that provide related services.

#### Alternative Method that Minimizes Adverse Impact

There are no clear alternative methods that both reduce adverse impact and meet the intended policy goals.

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<sup>11</sup> Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as “a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.”

## **Localities<sup>12</sup> Affected<sup>13</sup>**

There are NOIs, applications, and/or permits for solar PBR projects in essentially all regions of the Commonwealth. Thus, all localities appear to be potentially affected. Localities that disproportionately have ecological cores C1 and/or C2 or T&E insects may be particularly affected by the proposed requirement for mitigation for projects that would go forward on land containing C1 and C2 and T&E insects, respectively. Unless a local government itself were to choose to develop a solar energy project, the proposed amendments would not likely affect their costs.

## **Projected Impact on Employment**

It is not clear whether the proposed amendments in net would substantively affect total employment. It is possible that the proposed higher application fees and new NOI and annual permit maintenance fees, combined with new mitigation requirements for areas with ecological cores C1 and/or C2 or T&E insects, could potentially discourage some developers from pursuing some solar projects that would have been pursued under the current regulation, or choose to pursue the project in a different state. There are some proposals that would reduce cost, such as the lower-cost historical resource surveys; but these lower costs would not likely fully offset the other cost increases. If the net increase in costs were to substantially decrease the establishment of new solar projects, then there would be some reduced employment compared to what otherwise would have occurred.

## **Effects on the Use and Value of Private Property**

The proposals in net appear to increase the cost of developing real estate for the purpose of creating and operating solar energy projects with electricity generating rated capacity greater than 5 MW and equal or less than 150 MW. This may in some cases discourage such development.

## **Legal Mandates**

**General:** The Department of Planning and Budget has analyzed the economic impact of this proposed regulation in accordance with § 2.2-4007.04 of the Code of Virginia (Code) and Executive Order 14 (as amended, July 16, 2018). Code § 2.2-4007.04 requires that such economic impact analyses determine the public benefits and costs of the proposed amendments. Further the report should include but not be limited to: (1) the projected number of

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<sup>12</sup> “Locality” can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulatory change are most likely to occur.

<sup>13</sup> § 2.2-4007.04 defines “particularly affected” as bearing disproportionate material impact.

businesses or other entities to whom the proposed regulatory action would apply, (2) the identity of any localities and types of businesses or other entities particularly affected, (3) the projected number of persons and employment positions to be affected, (4) the projected costs to affected businesses or entities to implement or comply with the regulation, and (5) the impact on the use and value of private property.

**Adverse impacts:** Pursuant to Code § 2.2-4007.04(D): In the event this economic impact analysis reveals that the proposed regulation would have an adverse economic impact on businesses or would impose a significant adverse economic impact on a locality, business, or entity particularly affected, the Department of Planning and Budget shall advise the Joint Commission on Administrative Rules, the House Committee on Appropriations, and the Senate Committee on Finance within the 45-day period.

If the proposed regulatory action may have an adverse effect on small businesses, Code § 2.2-4007.04 requires that such economic impact analyses include: (1) an identification and estimate of the number of small businesses subject to the proposed regulation, (2) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the proposed regulation, including the type of professional skills necessary for preparing required reports and other documents, (3) a statement of the probable effect of the proposed regulation on affected small businesses, and (4) a description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation. Additionally, pursuant to Code § 2.2-4007.1, if there is a finding that a proposed regulation may have an adverse impact on small business, the Joint Commission on Administrative Rules shall be notified.