

Solar PBR Regulatory Advisory Group (RAP)

October 21, 2019

Draft Meeting Notes

Location: DEQ Central Office
3rd Floor Conference Room
DEQ, 1111 East Main St. Richmond, VA

Start: 9:33 a.m.

Break: 11:14 a.m. - 11:30 a.m.

Lunch Break: 12:38 p.m.

Reconvene 1:45 p.m.

Break: 3:05 p.m. – 3:16 p.m.

End: 4:10 p.m.

RAP Members Present:

Jon Hillis; SolUnesco
Sarah Cosby for Richard Gangle; Dominion Energy
William Reisinger; (Maryland-DC-Delaware-Virginia Solar Energy Industries Ass. MDV-SEIA)
Dan Holmes; Piedmont Environmental Council
Judy Dunscomb; The Nature Conservancy
Joe Lerch, Virginia Association of Counties (VACo)
Ken Jurman; Virginia Department of Mines, Minerals and Energy Cliona

Mary Robb, Virginia Solar Energy Development and Energy Storage Authority
Roger W. Kirchen; Virginia Department of Historic Resources (DHR)
S. René Hypes; Virginia Department of Conservation and Recreation (DCR)
Ernie Aschenbach; Virginia Department of Game & Inland Fisheries (DGIF)
Hannah Coman; Southern Environmental Law Center
Harry Godfrey; Advanced Energy Economy

RAP Members Absent:

John D. Hutchinson, V; Shenandoah Valley Battlefields Foundation
David Krupp; Community Energy
Terrance Lasher; Virginia Department of Forestry (DoF)

Facilitator: Trieste Lockwood, DEQ

Recorders: Jill Hrynciw and Mary E. Major, DEQ

Renewable Energy Program Representatives: Mike Dowd, DEQ and Tamera Thompson, DEQ

Guests and Public Attendees:

Chris Egghart
Chris Hawk
Kevin Heffernan
Julia Campus
Don Giecek
Todd Alonzo
Jonah Fogel
Keri Nicholas

Susan Tripp
Blaine Loos
Ray Fernald
Sarah Vogelsong
Brandon Searcey
Carrie Hearne
Jenny Bellville-Marrow
Sharon Baxter

Welcome and Introductions: Trieste Lockwood, (DEQ), provided the framework for the day by outlining the issues to be addressed. RAP members and the public attendees made introductions.

Kristoffer Dranby, Director, Energy and Natural Resources for Vanasse Hangen Brustlin, Inc., provided a power point presentation on the status of the Pollinator-Smart for the Solar Industry contract issued by DEQ (Attachment 1). Key deliverables for this voluntary program include tools the industry can use to evaluate and create projects that are pollinator friendly and include:

- Revamping the current DCR solar score card which can be used to evaluate proposed projects for enhancements for both pollinators, native grasses and avian habitat;
- Developing a “how to” manual for establishing pollinator plants and grasses on both new and retrofit applications; and

- Developing a business plan for use by the seed and nursery industry to create a viable market for Virginia native pollinator plants.

The RAP engaged in a robust discussion on the value of pollinators, how to balance land use priorities, the siting of facilities, and desire for mitigation of lost forest land.

Break 11:14 a.m. to 11:30 a.m.

The group continued the discussion regarding changes to the PBR application that was started at the October 7, 2019, meeting (Attachment 2).

Lunch from 12:38 p.m. to 1:45 p.m.

The application discussion continued and the group reached consensus on the following:

- Agreement for the use of the term “begin construction” with specific actions listed and additionally BMPs included in guidance;
- Agreement on notifying the Agency within 30 days of the decommissioning of a project;
- Agreement that DHR work on a timeline;
- Agreement to establish a timeline for applicants to respond after receiving an incomplete letter to let the Agency know if they intend to proceed with the project;
- Agreement to require a responsible official shall sign a certification that the information submitted is true and accurate to the best of their knowledge and that if the facility is sold the new responsible party shall also submit a certification; and
- The group agreed to have a responsible official and a contact person included as part of the NOI and application.

Break from 3:05 p.m. to 3:16 p.m.

Todd Alonzo, (DEQ), provided an update regarding the potential compliance approach for ranking the frequency of inspections based upon the historical resources identified within a project’s mitigation plan. A project with impacts to historic sites or battlefields may have more frequent oversight than a project with no mitigation required. He emphasized that avoidance of a potential significant resource extended past construction and indicated that notification regarding conditions at the facility could be reported annually.

Tamera Thompson, (DEQ), led a discussion on a modification to a PBR suggesting several types; administrative, minor and major. The group discussed what actions would apply to the various modification types and whether the modification would need to proceed to public comment.

Meeting ended 4:10 p.m.

The group will reconvene on November 4, 2019.

Please note, the following presentation was not created by DEQ.



Photo Credit: Fresh Energy

Virginia Pollinator-Smart Solar Industry Regulatory Advisory Panel Meeting – October 21, 2019

Presenter: Kris Dramby, VHB

Virginia Pollinator-Smart Solar Industry

- Why the RFP?
- What project team was tasked with?
- Project team members
- Scorecards, Scorecards, Scorecards
- Comprehensive Manual
- Monitoring Plan
- Business Plan
- Next Steps

Why “Virginia Pollinator-Smart”?

- Increased solar within our landscapes, experiencing global pollinator declines, knowledge of native flora and benefits on restoration projects
- RFP – focused on solar projects
- Applicable in multiple markets (i.e., transportation, energy, real estate, linear corridors, many others)



Photo credits: Betty Jackson Truax

Virginia Pollinator-Smart Solar Industry

- Task 1 – Virginia Solar Site Pollinator/Bird Habitat Scorecard & Virginia Solar Site Native Plant Finder
- Task 2 – Comprehensive Manual
- Task 3 – Monitoring Plan
- Task 4 – Business Plan
- Task 5 – Stakeholder Coordination



Photo Credit: Fresh Energy

Virginia Pollinator-Smart Solar Industry Project Team



Protect their lives. Preserve ours.



Virginia Pollinator-Smart Solar Industry Project Team

- Project Stakeholders:
 - Dominion
 - Solar developers
 - Large land holders
 - Seed suppliers
 - Restoration firms
 - Attorneys
 - Community organizations
 - Not for profits and NGO's
 - Federal, State & Local Governments
 - Public
 - And many more!

Version 1.0 to Present

Virginia Solar Site Pollinator/Bird Habitat Scorecard

Version 1.0-March 2018

As envisioned, a solar site with excellent habitat is vegetated with native species including a mix of warm season grasses and a diversity of pollinator plants amidst and surrounding the solar panels (Here called the “panel zone”). In this zone, the herbaceous vegetation is mowed only during the dormant season. Invasive species and fescue are eliminated from this zone.

Native plants including woody species where appropriate are used on “buffer land” surrounding the “panel zone”. Added features such as nest boxes and interpretive signage are used.

Insecticides are not applied in any area of the installation. Invasive and non-native plant species are controlled through integrated management approaches with limited usage of herbicides when required.

The site has implemented a detailed establishment, monitoring, and maintenance plan

When employed at a solar facility, these measures will provide benefits to the environment in a number of key areas including 1) storm water retention, 2) biodiversity/wildlife/bird habitat enhancement, 3) carbon sequestration, and 4) pollinator services.

Scoring criteria:

1. Within the panel zone, percent of overall site cover with native plant species listed in the Virginia Solar Site Native Plant Finder (max. 60 points):

a. 1-15 percent cover	2 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 50-75 percent cover	45 points
e. 75 percent cover or greater	60 points

2. Within the panel zone, percent of cover in native species used by pollinators as listed in the Virginia Solar Site Native Plant Finder (max. 50 points):

a. 1-15 percent cover	5 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 50 percent cover or greater	50 points



VERSION 2.0a

VIRGINIA POLLINATOR-SMART/ BIRD HABITAT SCORECARD Proposed or Retrofit Solar Sites

A successful Pollinator-Smart habitat will provide benefits to the environment and the solar site owner/operator in a number of key areas, including:

1. Pollinator services,
2. Biodiversity and habitat enhancement,
3. Carbon sequestration,
4. Erosion and sediment control, and;
5. Reduced vegetation maintenance over time.

The Virginia Solar Site Pollinator/Bird Habitat Scorecard is used to establish target conditions and/or evaluate the effectiveness of Pollinator-Smart measures once implemented. If the score thresholds are met, a site is deemed Pollinator-Smart provided the activities described herein are implemented over at least 10% of the project area.

DEFINITIONS

Open Area: Any area beyond the panel zone, within the property boundary.

Panel Zone: The area underneath the solar arrays, including inter-row spacing.

Project Area: Open Area + Panel Zone + Screening Zone.

Screening Zone: A vegetated visual barrier.

Solar Plant Finder: The Virginia Solar Site Native Plant Finder ([link](#)), an online research tool developed by the DCR Natural Heritage Program.

Virginia Pollinator-Smart Seed Mix: A seed mix that includes native local ecotypes and conforms with the Solar Plant Finder.

RESOURCES

[Virginia Solar Site Native Plant Finder](#)

Links under development:

[Virginia's Pollinator-Smart Solar Portal](#)

[Comprehensive Manual](#)

[Monitoring Plan](#)

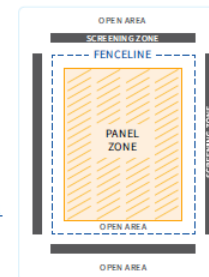
INSTRUCTIONS

For detailed instructions on how to implement the scorecard, please refer to the [Comprehensive Manual \(under development\)](#).

1. All questions and fields must be filled out.
2. Submit your scorecard and upload associated documents at [Virginia's Pollinator-Smart Solar Portal \(under development\)](#).
3. A Proposed or Retrofit Solar Site Scorecard should be submitted during the initial planting year. To remain certified, an Established Sites Scorecard should be submitted in years 2, 4, 6, 8, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all criteria are met during year 10, the site will be considered pollinator-friendly for the life of the project.

ATTACHMENTS PROVIDED

- Project Vicinity Map/Planting Plan
- Seed Mix and Seeding Rates
- Vegetation Management Plan
- Vegetation Monitoring Plan
- Invasive Species Mapping
- Research Collaboration Documentation
- Site Photos



PROJECT DETAILS & CONTACT INFORMATION

DATE: _____

SITE OWNER OR DESIGNEE: _____

PROJECT ADDRESS: _____

PROJECT SIZE (ACS AND MW): _____

POINT OF CONTACT: _____

EMAIL/PHONE: _____

VEGETATION CONSULTANT: _____

SEED SUPPLIER (IF KNOWN): _____

TARGET SEEDING DATE: _____

FINAL SCORE

Certified VA Pollinator-Smart: 80-99 pts
Gold Certified VA Pollinator-Smart: 100+ pts

Virginia Solar Site Native Plant Finder

- Existing Virginia Solar Site Native Plant Finder

COMMON NAME

SCIENTIFIC NAME

Clear All Fields **Submit**

PLANT REQUIREMENTS

POLLINATOR?

MAXIMUM EXPECTED HEIGHT (IN FEET)

LOCALITY

Clear All Fields **Submit**

Virginia Solar Site Native Plant Finder

- Seeding Location
- Progressive fields
- Habit
- Core/Diversity
- Pollinator Type
- Split Plant Requirements

LOCALITY ⓘ

Dinwiddie [remove](#)

SEEDING LOCATION ⓘ

Panel Zone

Screening Zone

Open Area

HABIT

POLLINATOR TYPE

PHENOLOGY

Spring

Early Summer

Late Summer

Fall

MAX EXPECTED HEIGHT

LIGHT REGIME

Sun

Part Sun

Shade

CORE/DIVERSITY ⓘ

MOISTURE REGIME

Aquatic

Wet

Moist

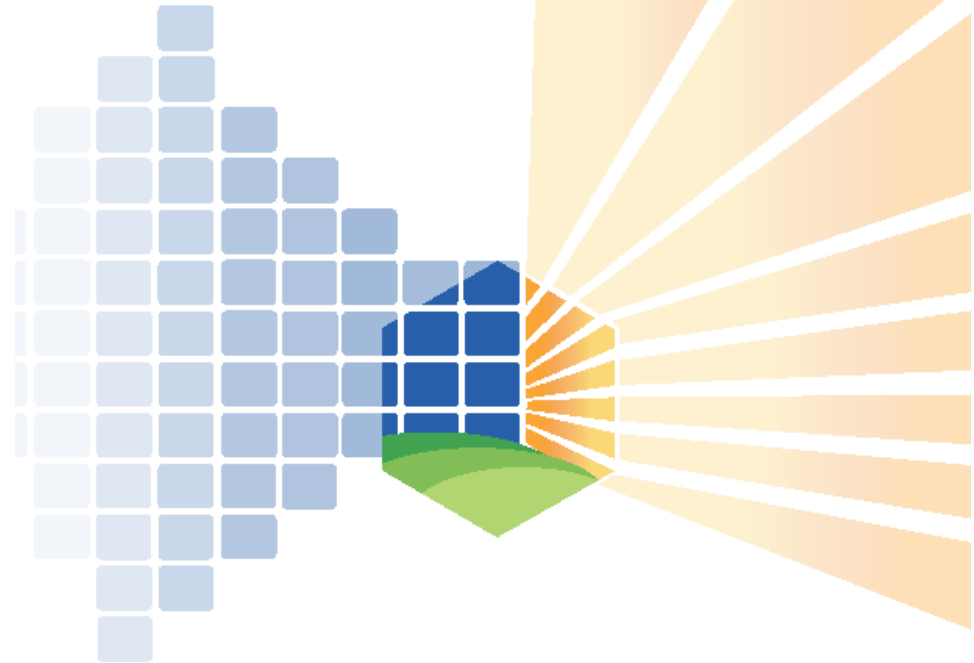
Dry

[Clear All Fields](#) [Submit](#)

Virginia
Pollinator-
Smart Solar
Industry
Comprehensive
Manual

VERSION 1.0 | OCTOBER 2019

Virginia Pollinator-Smart
Solar Industry



POLLINATOR-SMART
Comprehensive Manual



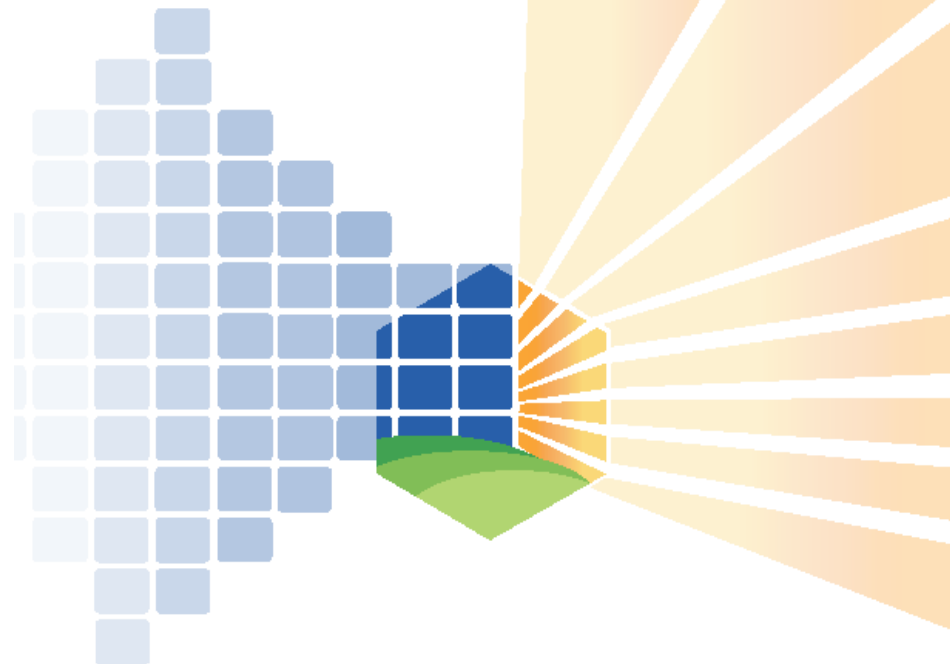
Virginia Pollinator-Smart Solar Industry Comprehensive Manual

- Contents
 - Executive Summary
 - Introduction
 - Site Suitability and Planning
 - Vegetation Management Plan
 - Installation Process
 - Integrated Vegetation Management
 - Monitoring Plan
 - The Future of Pollinator-Smart Solar Landscapes in Virginia
 - Glossary
 - Appendices

Virginia Pollinator- Smart Solar Industry Monitoring Plan

VERSION 1.0 | OCTOBER 2019

Virginia Pollinator-Smart
Solar Industry



POLLINATOR-SMART Monitoring Plan



On-site Monitoring Guidance for
Pollinator-Smart/Bird Habitat
Solar Facilities in Virginia

Virginia Pollinator-Smart Solar Industry Monitoring Plan

- Contents
 - Definitions
 - Introduction
 - Performance Standards
 - Monitoring Methods
 - Reporting
 - Appendices
 - Example Stratified Random Sample Design
 - Virginia Pollinator-Smart Rapid Assessment Form
 - Completed Vegetation Data Table

Virginia
Pollinator-
Smart Solar
Industry
Business Plan
Model



**INTEGRATED ROADSIDE
VEGETATION MANAGEMENT**

Technical Manual

Virginia Pollinator- Smart Solar Industry Business Plan

VERSION 1.0 | OCTOBER 2019

Virginia Pollinator-Smart
Solar Industry



POLLINATOR-SMART Business Plan



Building a Native Seed Industry
Within Virginia

Virginia Pollinator-Smart Solar Industry Business Plan

■ Contents

- Executive Summary
- Industry Structure
- Native Seed Growers Business Development Committee
- Producers
- Ecotype Development
- Seed Distribution
- Seed Production, Infrastructure and Equipment
- Best Practices and Knowledge Base
- Economics
- Successful Models
- Marketing Strategy and Sales Management
- Pollinator-Smart Market Summary

Next Steps!





Photo Credit: Fresh Energy

THANK YOU!

Application Issues for Solar RAP Discussion

"Commence commercial operation"

"Commence construction" (change word "commence" to "begin", examples of "begin" - when you start digging the dirt, physical change to land, list other items to be determined)

Issues that need timeframe clarification:

1. Timeframe for applicant to notify DEQ after receipt of incomplete determination of their intent to correct deficiencies/submit required information. (possibly model VWP, consider minimum, consider 30 days)
2. Timeframe for invalid PBR if applicant has not commenced continuous construction or requested an extension from the department. (annual update on interconnection status and construction start date, consider 3 to 5 years)
3. Timeframes for phased construction – need for a new permit.
4. Post construction map submitted within 60 days of commencing operation.
5. Expiration date for PBR when construction has begun (provide expected service life and have option to renew, provide decommission notification within 30 days after doing so)

Issues under Analysis of impacts to natural resources:

1. DHR Cultural Resources:

- Conduct a Phase I historic resource analysis and receive approval by DHR prior to submitting application. (would make for a cleaner PBR submittal and faster DEQ review, if DHR review process is delayed then start of PBR review could be delayed, DHR willing to look at a smaller boundary than ½ mile, depending on area ½ mile may be too big or may be too small, regulation needs to be modified possibly using guidance, conform historical and wildlife desktop review – also comment to not do so, DHR and DEQ open to modeling – room for innovative processes)

2. DCR Natural Heritage Review:

- Conduct Habitat Scorecard
- Conduct cost benefit analysis of planting vs. not planting pollinator/native grasses
- Consider having a standard formula for analysis so that we get a consistent comparison

Content of Mitigation plan:

- Approved by DHR prior to submittal
- Highlight resources that need to be avoided

Recordkeeping/Reporting:

- Notification of commence construction within 30 days
- Notification of commencing operation within 30 days
- An as-built map post construction within 90 days
- Demonstration of completed mitigation
- 30 days to supply any information requested by department for compliance issues

Permit termination:

- Consider an expiration date and/or a permit renewal requirement
- Criteria for a PBR termination/Enforcement language

Change of contact provisions and assignments:

- Where the controlling membership interests or other equity shares of permittee is purchased by another entity, the permittee shall file a notice with the Department within 30 days indicating new ownership and providing revised contact information as applicable.
 - o argument can be made that it's not really a change of ownership and all that is needed is a change of contact

- *potentially all that would change are the officers of the LLC and day to day contact person*
- *helpful for DEQ to know the beneficial owner (entity that owns special purpose vehicle)*
- *split modification into administration, minor and major*
- *change of contact and beneficial owner (entity that owns special purpose vehicle) is a simple form*
- *new owner would certify permit information*

Public comment period / hearing / EJ:

- Expand window in current regulation to notice and hold public hearing
- Notify locality when NOI received by or submitted to DEQ
- Make meetings more accessible
- Make documents available online, meeting notice and comment period online, developer to post documents on their website and then include URL in meeting notice
- Developer could submit meeting notice to DEQ who could then submit to Town Hall (this notice is included in electronic application)

Modification:

- Administrative (name change, ownership change, consider 15 % change in megawatts) verses Minor (DHR, DCR, DGIF review needed) verses Major (public comment needed)
 - Does it disturb resources on site
 - Does it comply with local requirements
 - Focus on intent and outcome
 - Does it negate a commitment made by the developer
- Have a timeline to review and advise developer whether minor verses major
- Buffer / Square footage (minor or major)
- Visual Impact / Plants (administrative if a commitment is made to plant native plants and the species change is still native, but could be minor or major if a commitment is made to use pollinators and the proposed modification is turf grass)
- Changes to the mitigation plan (minor or major)
- Moving location of panels, but still within buffer and approvals (administrative, but discussion that this could be minor or major as well)
- Selecting different vegetation for buffer (administrative)