AELC Ag. and Envl. Law Conference

Going Solar:

The Roles of the Local and State Governments

Post- Board of County Commissioners of Washington County v. Perennial Solar, LLC

Sondra's comments and materials

...Are her own and reflect her own personal experience and opinions.

They do not represent the views of the State, the Office of the Attorney General, MEA or DNR-PPRP.

RPS and Utility Scale Solar

Maryland's Renewable Energy Portfolio Standard (RPS) – requires Maryland electric utilities and retail suppliers to obtain renewable energy credits (RECs) equivalent to a percentage of their retail sales

14.5 % percent solar carve out by 2030.

How much land are we talking about?

What about rooftop solar and "brownfields"?

Initiatives to Focus on Relevant Issues and Questions

Utility Scale Solar in Maryland and the RPS

- Environmental and consumer benefits associated with renewable energy
- The State's RPS Program is "to recognize and develop the benefits associated with a diverse collection of renewable energy supplies. does this by recognizing the environmental and consumer benefits associated with renewable energy.
- Solar Carve-Out "To promote a diversified resource mix and encourage deployment of certain technologies. (http://www.ncsl.org/research/energy/states-renewable-energy-ambitions.aspxL)
- Interim RPS Report Dec. 2018 http://dlslibrary.state.md.us/publications/Exec/DNR/PU7-714(e)(1)(i)_2018.pdf
- Final RPS Report Dec. 2019

"Back of the Envelope" **Estimate** if 100% of the Solar Carve Out is from Land-Based Solar

54,500,000 Energy (MWH) used in state in 2030

14.50% Solar carve out

7,902,500 Solar energy (MWH) required

1,146,840 Energy (MWH) from existing solar

6,755,660 Energy (MWH) required from new solar

100.00% Ground mounted percentage (assumed)

6,755,660 Energy (MWH) from ground mounted solar

Energy to power (MWH-ac/MW-dc) conversion ratio for new solar 1,431 (assumed)

4,721 Capacity (MW) required from new ground mounted solar

8 Acres per MW

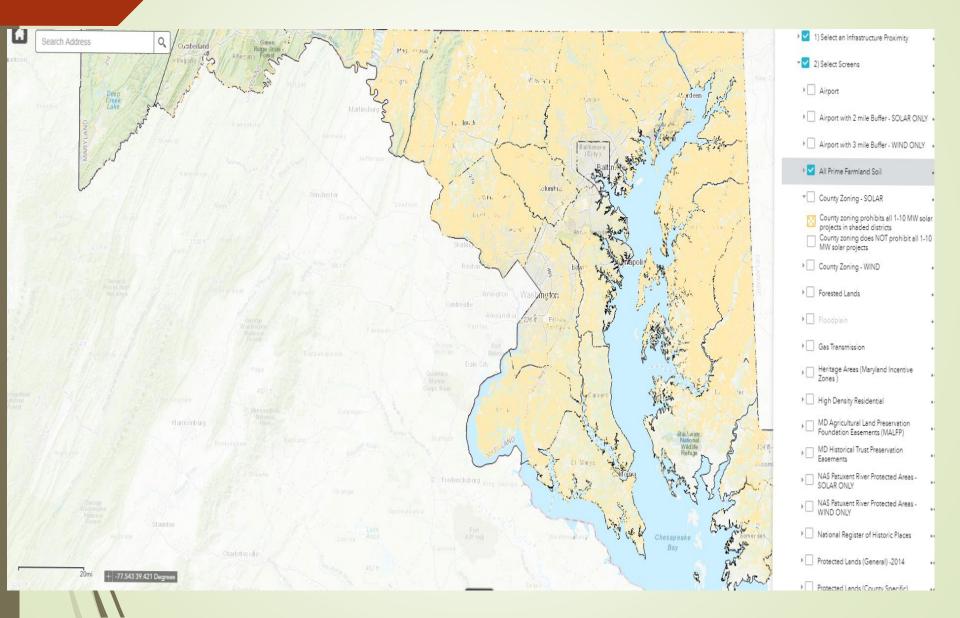
37,767 Acres of panels required for new land based solar

"Back of the Envelope" **Estimate** if 60% of the Solar Carve is Needed from Land-Based Solar

54,500,000 ENERGY (MWH) USED IN STATE IN 2030

14.50%	Solar Carve-out
7,902,500	Solar energy (MWH) required
1,146,840	Energy (MWH) from existing solar-estimate
6,755,660	Energy (MWH) required from new solar
60.00%	Ground mounted percentage (assumed)
4,053,396	Energy (MWH) from ground mounted solar
1,431	Energy to power (MWH-ac/MW-dc) conversion ratio for new solar (assumed)
2,833	Capacity (MW) required from new ground mounted solar
8	Acres per MW
22,660	Acres of panels required for new land based solar

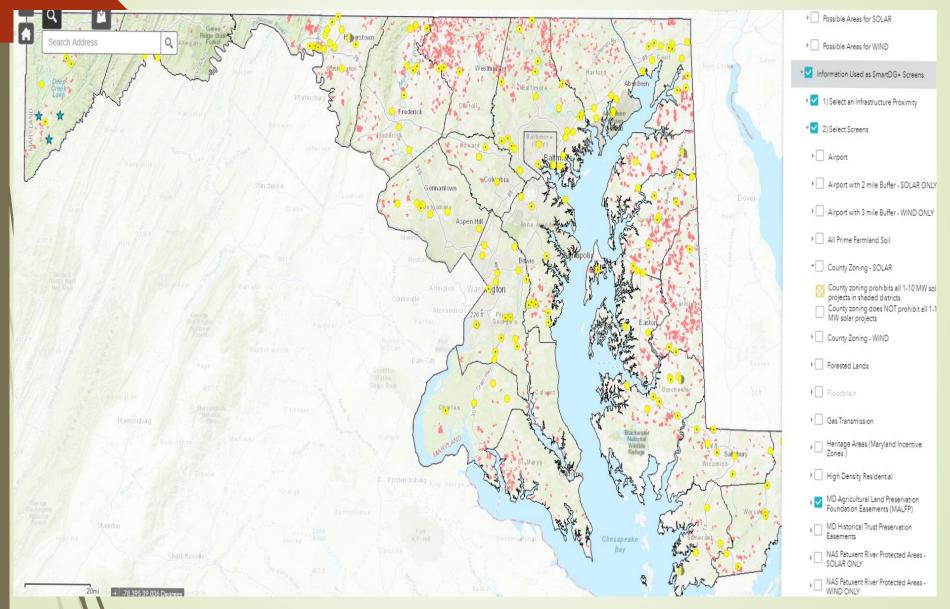
SmartDG+ -- PPRP Online Tool – Prime Farmland



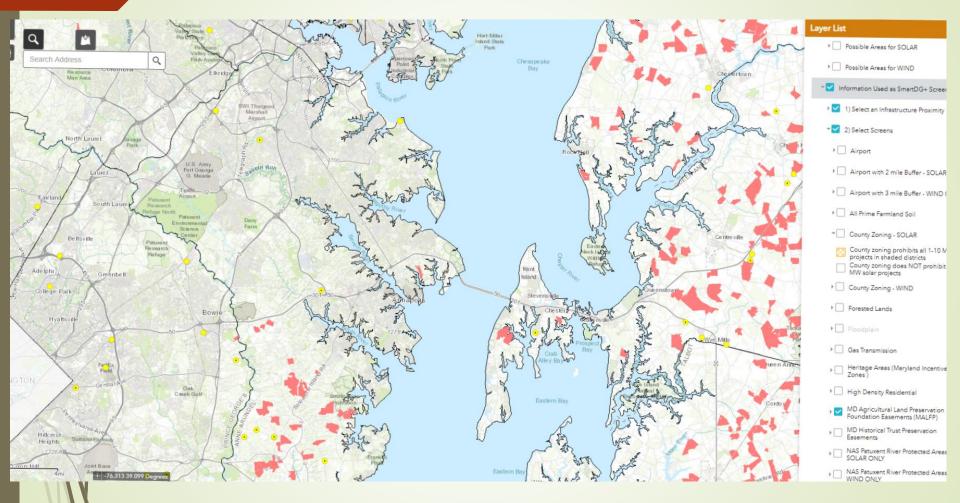
SmartDG+ PPRP Online Tool – Prime Farm. – Up close



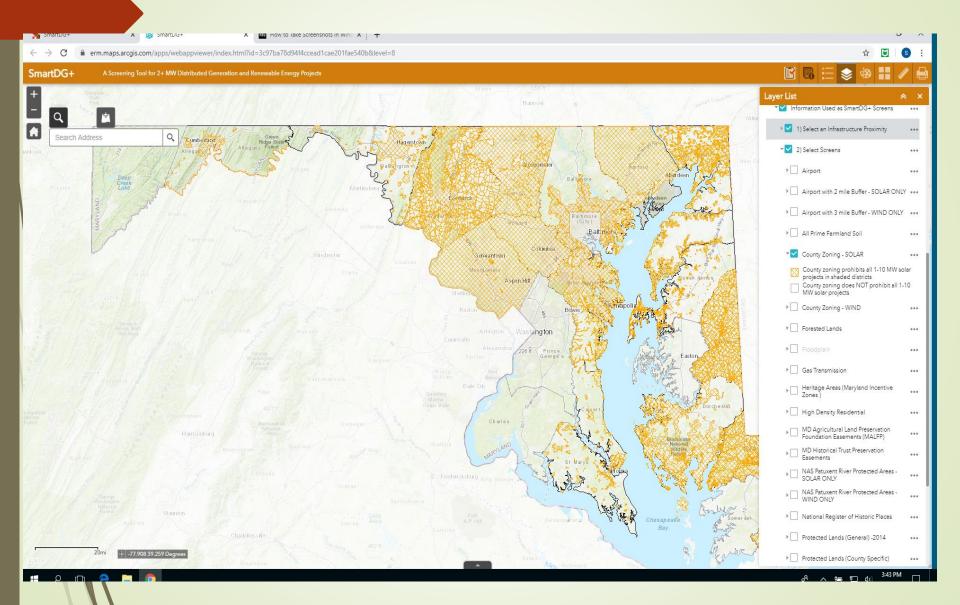
SmartDG+ -- PPRP Online Tool – MALPF



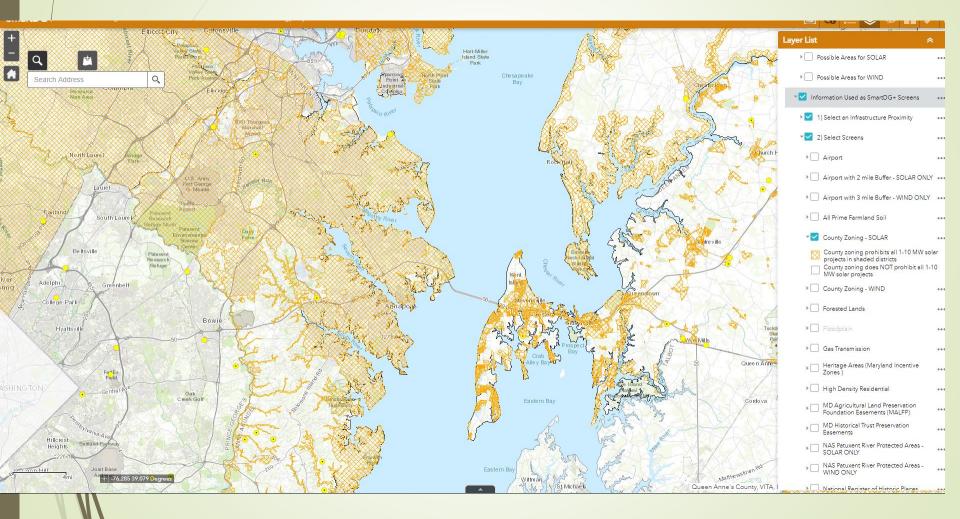
SmartDG+ -- PPRP Online Tool – MALPF – Close up



SmartDG+ -- PPRP Online Tool – Zoning prohibitions

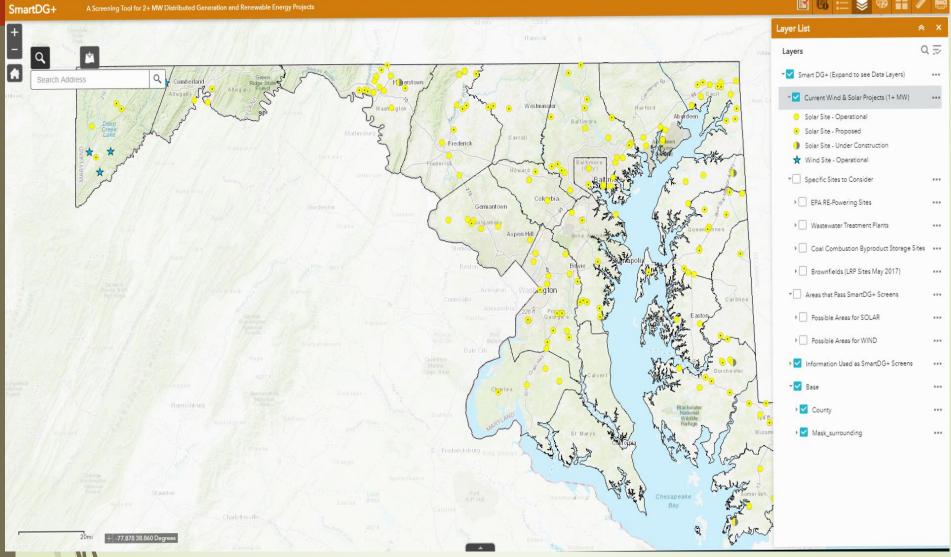


SmartDG+ -- PPRP Online Tool – Zoning – Close up



SmartDG+ -- PPRP Online Tool – Projects in MD

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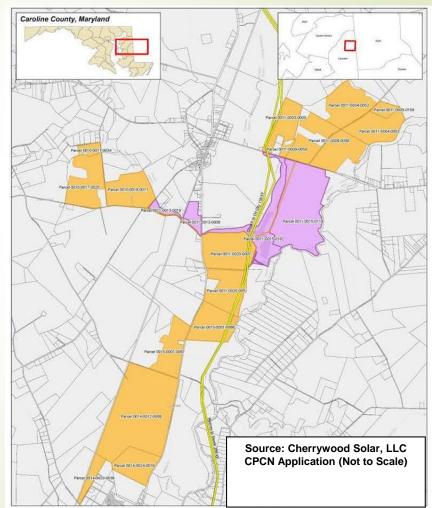
Union Bridge Solar - 9483

- 8.2 MW Solar PV proposed by Citizens Union Bridge on 48 acres of industrial land in Carroll County
- Approximately 24,375 panels of fixed-tilt design
- Pollinator Habitat



Cherrywood Solar - 9477

- 202 MW Solar PV proposed by Open Road Renewables on 1,085 acres of agricultural land
- 499,806 panels of single-axis tracking design
 - Largest solar project proposed in Maryland to date
 - Entire Project area zoned Rural (R1) and current land use is agricultural
- Project area includes portions designated as Prime Farmland
- Filed 23 January 2018
- Final Order 16 April 2019



Utility Scale Solar Projects

MD Solar Farm Church Hill Solar

- Cambridge SolarRockfish Sølar
- Constellation Solar
 LS-Egret Solar
 O.E. Dorchester
 Wye Mills Solar
 *Great Bay Solar

Washington Co.	20 MW	10.11.11
Queen Anne's Co.	6 MW	6.24.13
2014 : 2 grante	d	
Dorchester Co.	3.3 MW	9.5.14
Charles Co.	10 MW	9.16.14
2015: 5 granted	ł	
Harford Co.	20 MW	4.16.15
Wicomico Co.	15 MW	5.28.15
Dorchester Co.	15.5 MW	6.9.15
Queen Anne's Co.	10 MW	6.15.15
Somerset Co.	150 MW	12.15.15

2016 9 granted

Sunfish Solar
Heron Solar
Seabeach Solar
Baker Point Solar
Dan's Mtn. Solar
Todd Solar
*Blue Star Solar
*Ibis Solar
Gateway Solar

Queen Anne's Worcester Co Worcester Co Frederick Co. Washington Co. Dorchester Co. Kent Co. Somerset Co. Worcester Co.

6.0 MW	1.22.16
20 MW	4.25.16
15 MW	5.2.16
9 MW	7.6.16
18.36 MW	7.11.16
20 MW	7.28.16
6 MW	10.21.16
6 MW	10.21.16
12 MW	12.15.16

2017 - 4 granted, 1 denied

Pinesburg	Washington Co.	8 MW	3.3.17
Mason-Dixon	Washington Co.	18.4 MW	3.3.17
*Mills Branch	Kent Co.	60 MW	9.10.17
• Big Spring Solar	Washington Co.	3.5 MW	10.31.17
Phoenix Solar	Prince George's Co.	2.5 MW	11.9.17

2018 8 granted

	Brick Kiln Rd	Wicomico Co.	5.4 MW	2.6.18
-	*LeGore Bridge Solar	Frederick Co.	20 MW	3.23.18
-	Chesapeake Solar	Cecil Co.	9 MW	4.6.18
-	Jones Farm	Queen Anne's	56.7 MW	4.17.18
	Egypt Rd	Cambridge	45.9 MW	4.27.18
	MD/Solar 2	Charles Co.	27.5 MW	9.21.18
	MD Solar 1	Charles Co.	32.5 MW	9.21.18
F	Massey Solar	Kent Co.	5 MW	12.31.18

2019

- Richfield Solar
- Cherrywood
- Bluegrass
- Kieffer Funk

Dorchester Co.	50 MW	3.19.19
Caroline Co.	202 MW	4.16.19
Queen Anne's	80 MW	
Washington	11.8 MW	

CPCN Process

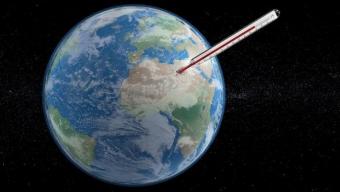
- Application (More than 2 MW)
- Testimony and Discovery
- Including PPRP review and NR 3-306 recommendation from reviewing State agencies.
- PPRP coordination with state agencies and local jurisdictions as part of its independent review
- Public Hearing where proposed project located
- Evidentiary Hearing
- Prøposed Order (PULJ)
- Final Order (PSC)
- Appeal of Final Order
- Compliance with the CPCN and conditions

PUA §207 (e) and PSC's "Due Consideration"

- Recommendation of the governing body where project is located (PUA 207(e)(1))
- Impact on stability and reliability of the electric system, economics, esthetics, historic sites, aviation, environment (air, water, solid waste) (PUA 207(e)(2))
- Consistency with the comprehensive plan and zoning and efforts to address concerns of the county or municipality (PUA 207(e)(3))

Maryland's Renewable Energy and Climate Change Goals

- Renewable Energy Goal: Clean Energy Jobs Act of 2019 requires 50% renewable energy by 2030 with 14.5% solar "carve out"
- Clean Electricity Goal: Clean and Renewable Energy Standard (CARES) calls for 100% clean electricity by 2040
- Current Climate Change Goal: 25% greenhouse gas emission reductions from 2006 levels by 2025
- New Climate Change Goal: 40% greenhouse gas emission reductions from 2006 levels by 2030 with "aspirational goal" of 80% by 2050



MACo Position on Solar Energy Siting

- Maryland Association of Counties (MACo) supports solar energy development with local zoning and siting requirements as part of the project approval process
- MACo recognizes that there needs to be a mix of rooftop, community, commercial, and utility-scale solar projects to meet Maryland's renewable energy goals
- Solar projects should be prioritized in following manner:
 - Rooftop and Commercial solar
 - Community & Utility-scale projects on brownfields, grayfields (parking lots and rooftops), industrial areas, and appropriate government-owned lands (such as landfills and wastewater treatment plants)
 - Community & Utility-scale projects on open space zoned for solar by local governments with appropriate protections for prime farmland, forestlands, critical areas and wetlands, environmentally sensitive areas, and areas of cultural or historical importance

The Perennial Decision

- In Board of County Commissioners of Washington County, Maryland v. Perennial Solar, LLC (July 15, 2019), the Maryland Court of Appeals held that the PSC had implied preemption over local zoning and land use requirements regarding the siting of solar or other energy generation facilities
- Case outcome is unfortunate from MACo's perspective but holding is narrow and does not eliminate important role of local zoning in the CPCN process
- Case does not change the CPCN or PSC decision-making process (PSC traditionally given great deference to local concerns)
- Case does not change the scope of the CPCN or PSC (limited to utility-scale solar and other energy generation facilities requiring a CPCN)
- "Due consideration" requirements of §207(e) of Public Utilities Article still apply

Role of Local Zoning

- Section 207(e) of Public Utilities Article requires PSC to give "due consideration" to:
 - Position of a local government on a proposed energy generation project within their jurisdiction
 - Consistency of a proposed energy generation project with the local government's comprehensive plan and zoning
 - Any actions taken to address concerns raised by the local government over the proposed energy generation project
- Consistency and mitigating actions requirements added to law by HB 1350 of 2017 (a MACo legislative initiative)





Role of Local Zoning

- Local governments can and should enact zoning for utility-scale solar projects
- Different counties taken different approaches to zoning (overlay zones, special exception requirements, total or individual project caps)
- Zoning can limit or prohibit utility-scale solar development on lands with other important uses, including prime farmland, forestlands, or historical sites or viewsheds (have a rationale)
- Zoning should provide for "viable" sites for utility-scale solar development (proximity to high voltage transmission lines, good solar production)
 - "Good faith" zoning efforts will carry great weight with PSC
 - Outright or de facto bans on utility-scale solar could invite preemption
 - Energy developers should reach out to affected local governments as early as possible – ignore local zoning at your peril

County Role in CPCN Process

Consistent with PUA Section 7-207 (e)

- Joinf public hearing with the PSC and local jurisdiction
- PSC consideration of:
- Local jurisdiction's recommendation
- Consistency with Comprehensive Plan and zoning
- Efforts to resolve any issues presented by the county/municipal

As a party in the PSC docket (Intervention in the Case)

(e.g., Mills Branch Solar (Kent), Morgnec Road Solar (Kent), LeGore Bridge (Frederick), Biggs Ford (Frederick), Dan's Mountain Wind (Washington), Union Bridge Solar (Town of), Casper Solar (Queen Anne's), Dan's Mtn Wind,

Comments to PSC (Administrative Meetings)

Compliance with CPCN conditions (e.g., Great Bay Solar (Caroline))

Biggs Ford Solar – 9439

See https://dnr.maryland.gov/pprp

- 15 MW Solar PV proposed by Coronal Energy on 135 acres of agricultural land in Frederick County
- 61,000 panels of single-axis tracking
- Proposed project conflicts with County Solar Bill (17-07) and Comp. Plan due to Priority Preservation Areas, prime farmland, and site limitations
 - Developer applied for Floating Zone reclassification from Frederick County to allow for solar project at the proposed site; County denied
 - Ongoing



Great Bay Solar - 9380

See https://dnr.maryland.gov/pprp

- 150 MW solar project in Somerset County, received CPCN in 2015 under PSC Order 87690
- 75 MW (Great Bay Solar I) has been constructed on several parcels of land near Princess Anne
- Great Bay Solar II now proposed for construction; Applicant is requesting an extension of the original 3-year deadline in the CPCN to start construction (expired in December 2018)
- Phase I encountered issues with construction methods, water management, and vegetative buffer
- PPRP and State agencies are recommending updated and amended conditions to prevent recurrence of issues in Phase II construction

Perennial Solar Timeline

CPCN (PSC Case No. 9408)

CPCN Application 12/01/2015

Perennial Direct Testimony 01/26/2016

CPCN/Case suspended/ abeyance 03/1/6/2016

Proposed Revised Schedule 09/03/2019

Supplemental Testimony

Currently ongoing

County and Appeal

Application for Special Exception and Variance 09/2015

Granted by County

Decision of Cir. Court

Decision Ct. of Special Appeals

Decision of Ct. of Appeals 07/15/19

Perennial Solar - 9408

See https://dnr.maryland.gov/pprp

- 8 MW Solar PV proposed by Community Energy on 70 acres of agricultural land in Washington County
- 34,000 PV modules of fixed-tilt design
- Prime Farmland and Farmland of Statewide Importance
- The case is currently being held in abeyance, as of 11 March 2019, pending judicial appeal process



Perennial Solar – COA Decision (07/19)

- Upheld previous case law as to PSC preemption authority and clarified its application to utility scale solar.
- A specific county decision opposing a project was not at issue in this case. The County had granted the special exception for the Perennial project.
- Summarized PUA Section 7-207(e) and recently passed PUA Section 7-207(e)(3)
- Referenced Maryland's renewable portfolio standards and solar carve-out.

Relevant Commission Decisions re: the Role of Counties in the CPCN Process

Urbana Loop (transmission)
 PSC Case No. 9018
 Proposed Order 04/26/2006
 Final Order 08/03/2006

Blue Star Solar and Ibis Solar
 PSC Case Nos. 9387 and 9392
 Proposed Order 04/06/2016
 Fingl Order 10/21/2016

Mill's Branch Solar
 PSC Case No. 9400
 Proposed Order 04/26/2006
 Final Order 08/03/2006

Dan's Mountain Wind

PSC Case No. 9413 Proposed Order 01/25/2017 Final Order 06/16/2017

Legore Bridge Solar
 PSC Case No. 9429
 Proposed Order 10/03/2017
 Final Order 03/23/2018
 Currently on appeal by Frederick County

Biggs Ford Solar (remanded)
 PSC Case No. 9439
 Proposed Order 12/05/2017
 Final Order 04/16/2018
 Currently Before PULJ Division

Other Solar CPCN Applications

- Union Bridge Solar Carroll
- Biggs Ford Solar Frederick
- Spectrum Solar Prince George's
- Perennial Solar Washington
- Lightsource Solar St. Margaret's

- Casper Solar Queen Anne's Co.(withdrawn)
- Morgnec Road (Initial Project withdrawn) – Kent Co.

 Mattawoman Solar – Prince George's Co. (Suspended)

Examples of Siting Issues Arising in CPCN Process

Mills Branch Solar – PSC Case No. 9411
 CPCN Denied

Casper Solar – PSC Case No. 9450
 Withdrawn

 Mattawoman Solar – PSC Case No. 9469
 Procedural Schedule Suspended

Casper Solar – 9450

See https://dnr.maryland.gov/pprp

- 36.7 MW Solar PV proposed by Coronal Energy on 360 acres of agricultural land in Queen Anne's County
- 150,000 panels of single-axis tracking design
- Filed April 2017. Procedural schedule is currently suspended
- Voluntary compliance with FCA administered through County ordinance
- Site is within a Priority Preservation Area
- The Procedural Schedule has been suspended since October 2018
- Withdrew application



Bluegrass Solar - 9496

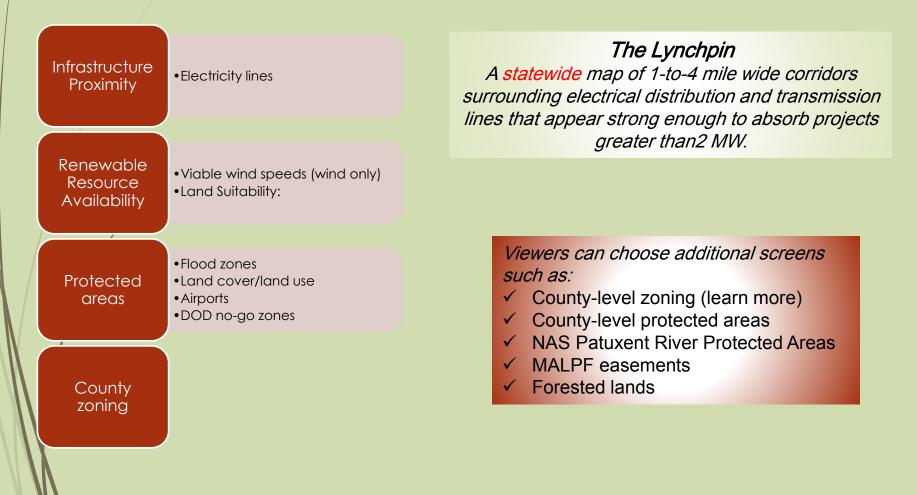
See https://dnr.maryland.gov/pprp

- 80 MW Solar PV proposed by OneEnergy Renewables on 500 acres of agricultural land in Queen Anne's County
 - 271,830 panels and horizontal tracking racking system
 - Filed November 2018
 - Portions considered Prime Farmland
 - 70 acres of forest to be placed in conservation easement
- Additional plantings for vegetative buffer and to meet afforestation requirements planned



PPRP's online tool – Smart DG

Link: https://dnr.maryland.gov/pprp/Pages/smartdg.aspx



Difficult Balancing Act

Environmental and Development Constraints

- Environmental features (forest, streams, wetlands, Critical Area)
- Development constraints (capacity, interconnection location, contiguity, interconnection and improvement costs)

State and Local Requirements and Preferences

- Zoning
- Private land use restrictions (conservation easements, community restrictions)
- Aesthetics & Mitigation
- Forest Conservation
- Taxation

Landowner Considerations

- Typically, multiple property owners
- Secure appropriate site on economically viable terms (sale or lease)
- Lengthy approval processes

Location, Location, Location

- Careful site selection is imperative for project success
- Process schedule and complexity Reduced by avoidance of additional permitting (forest clearing, wetland impacts, zoning revisions)
- Project costs Reduced by optimizing interconnection, minimizing need for mitigation (environmental and aesthetic)
- Public support/opposition "Out of sight, out of mind" Relatively little public interest or opposition if not visible.

Local Government Coordination and Preemption

- Perennial Solar confirmed the application of State preemption to CPCNs for utility-scale solar.
- Narrow practical impact under the "due consideration" standard
- The potential for preemption should cause local governments to meaningfully engage, even on projects that do not enjoy local support
- CPCN Approval Condition Prior to commencement of Project construction, certify to PSC and PPRP that facility was designed in "substantial conformity" to local zoning requirements and "has received site plan approval and all required local permits"
- Engagement with local government and direct, efficient communication is beneficial
- Meet early and often

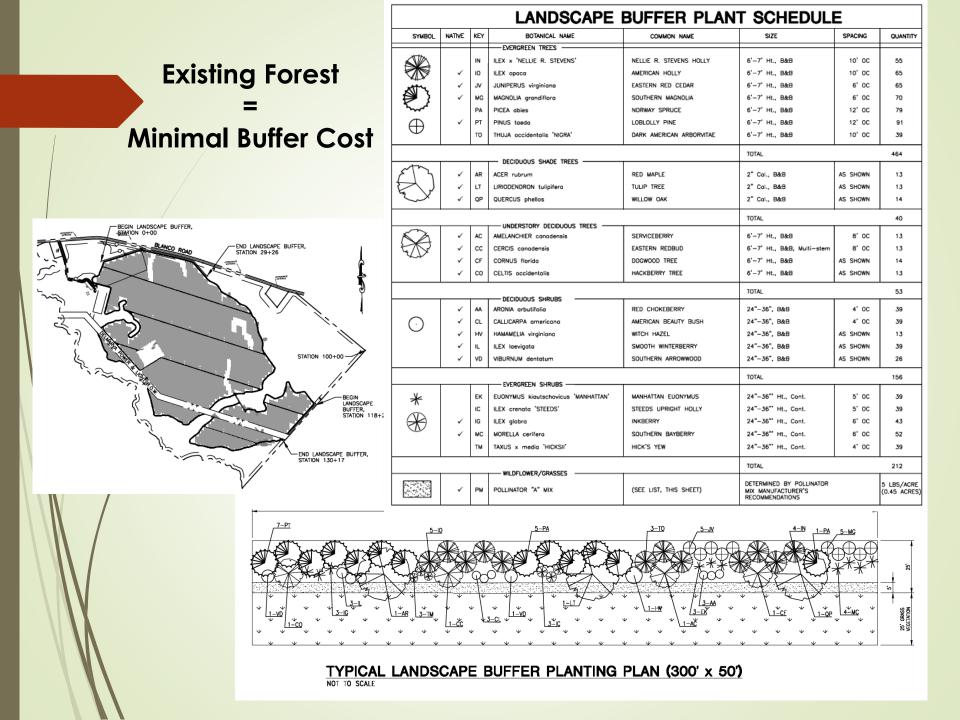
Local Government Review

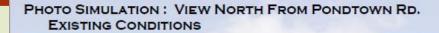
Zoning Approvals:

- Wide range of zoning approaches: Regulated as a "utility" use, Solar overlay district (2 miles of transmission), acreage caps
 - Permitted by Right
 - Special Exception/Conditional Use
- Variances

Site Design:

- Site plan approval by the local Planning Commission
- Aesthetic and screening considerations often also considered in depth by the Board of Appeals





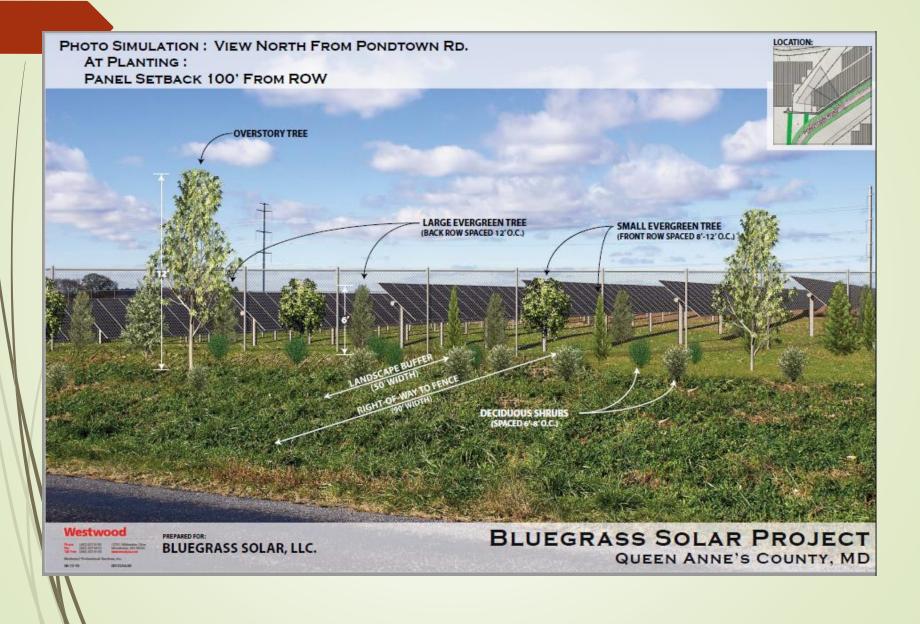
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BLUEGRASS SOLAR, LLC.

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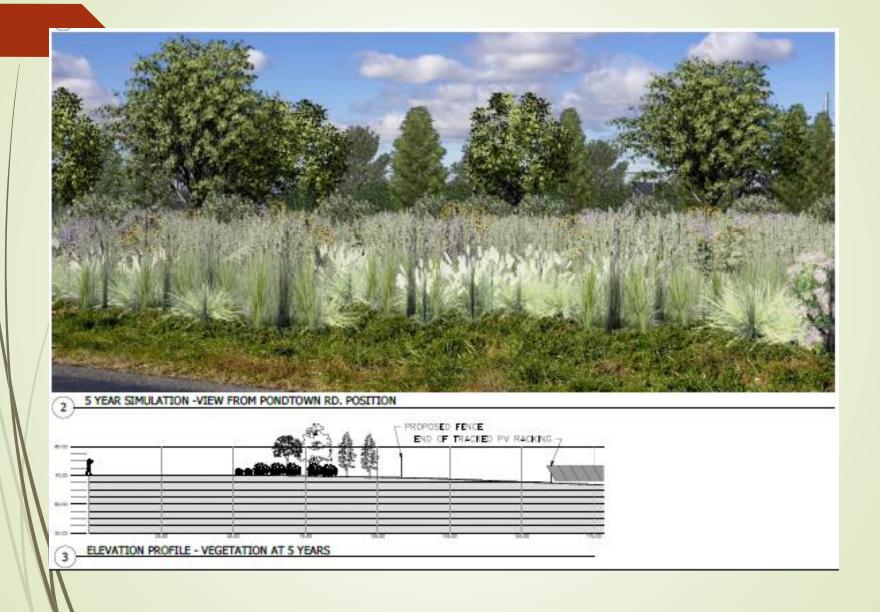
Westwood





BLUEGRASS SOLAR PROJECT QUEEN ANNE'S COUNTY, MD

BLUEGRASS SOLAR, LLC.



Personal Property Taxes and PILOTs

 Local government taxation of electric generating equipment

50% exemption

30 year depreciation with 25% floor

 Payment in Lieu of Taxes Agreement – real and personal property

Real Estate Considerations

Option or Purchase Contracts

- Due diligence, approval contingencies and timeframes
- o Deposit or option fee
- Record notice (memorandum)

<u>Leases</u>

- Due Due diligence & development periods
- Exclusive rights/easements (sunlight, utilities, operations)
- Lease term/renewals (recordation tax < 7 years)
- Economic terms (pre-development, rent, property taxes)
- o Construction liens
- o Decommissioning
- o Indemnification
- o SNDAs

Who's Talking Solar Siting?

- Governor's Task Force on Renewable Energy Development and Siting
 - Established by Executive Order 01.01.2019.09
 - The Task Force will study and make consensus-based recommendations on the siting of clean and renewable energy projects, including how to accelerate and streamline the siting of projects in desired areas, such as developed lands, brownfields, and parking lots, while minimizing the impact of projects sited in less-desired areas, such as agriculturally, ecologically, or culturally important lands
 - The recommendations must recognize and respect local government legal guthority and private property rights.



Who's Talking Solar Siting?

- Maryland House of Delegates Environment and Transportation Workgroup on Solar Development
 - Created by the House Environment and Transportation Committee, this Workgroup is focused specifically on the land use and siting issues surrounding solar development, with a focus on utility-scale solar facilities
- Statewide Joint Land Use Survey (JLUS) Implementation Committee Alternative Energy Siting Project
 - The Committee is tasked with studying and implementing the Maryland Statewide Joint Land Use Study Response Implementation Strategy, which contains recommendations to make state and local land use priorities align with the needs of military facilities located in the state
 - The Committee is developing an Alternative Energy Siting Project to ensure that alternative energy projects are located in a manner that do disrupt base missions or current or future operating areas
- Senate Finance Committee Energy Briefing (September 16, 2019)

Considered the issues of solar siting and net metering

The 2020 Session & Beyond

The 2020 Session

- Expect legislation similar to SB 744 of 2019 (establishing a Commission on the Development of a Blueprint for Solar Energy in Maryland)
- Preliminary policy, regulatory, and statutory recommendations from the Renewable Energy Task Force
- Potential legislation on state and local revenue authority regarding solar energy projects
- Beyond 2020 Session
 - Final recommendations of Renewable Energy Task Force in 2020
 - Increasing pressures to meet State's energy goals
 - Grid infrastructure and storage challenges