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ENERGY
TRANSITION
INITIATIVE
AT UVA

SOLAR IN VIRGINIA:

A PRESENTATION FOR RRBC CONFERENCE 2022



SEPTEMBER 29, 2022



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EMM2T@VIRGINIA.EDU

Virginia is in the early stages of a renewable energy transition

In this session, I will describe:

- Solar development and demand trends
- Virginia solar policy and permitting
- Relevant findings from the Virginia Solar Survey
- Resources

Solar Development Trends

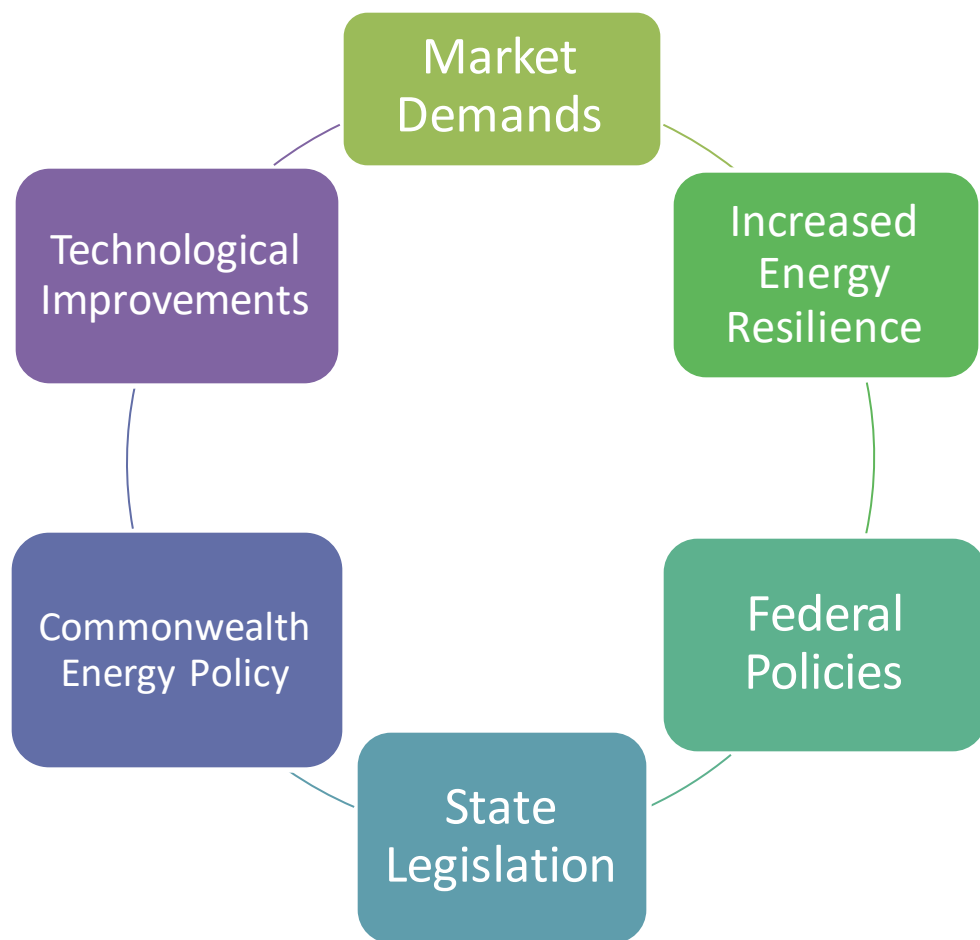
Significant changes in demand, supply and consumption across our energy system, including:

- Distributed generation (behind the meter)
- Large-scale solar (in front of the meter)
- Energy storage and grid edge technologies



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Why Solar, Why Now?



- **Market Forces**
 - *Corporate demands, RPS*
 - *Public preference for clean energy*
 - *Increased demand (data centers, electrification)*
 - *Improved technologies and efficiencies*
 - *Least cost source of energy*
- **Improved Resilience**
 - *Energy independence*
- **Federal Policies and Incentives**
 - *Investment Tax Credit (extended to 2035 for res)*
 - *IIJA and Inflation Reduction Act, 2022*
- **State Policies**
 - *Ex: Virginia Clean Economy Act, Solar Freedom Bill, Commonwealth Clean Energy Policy, Virginia Energy Plan, and more*

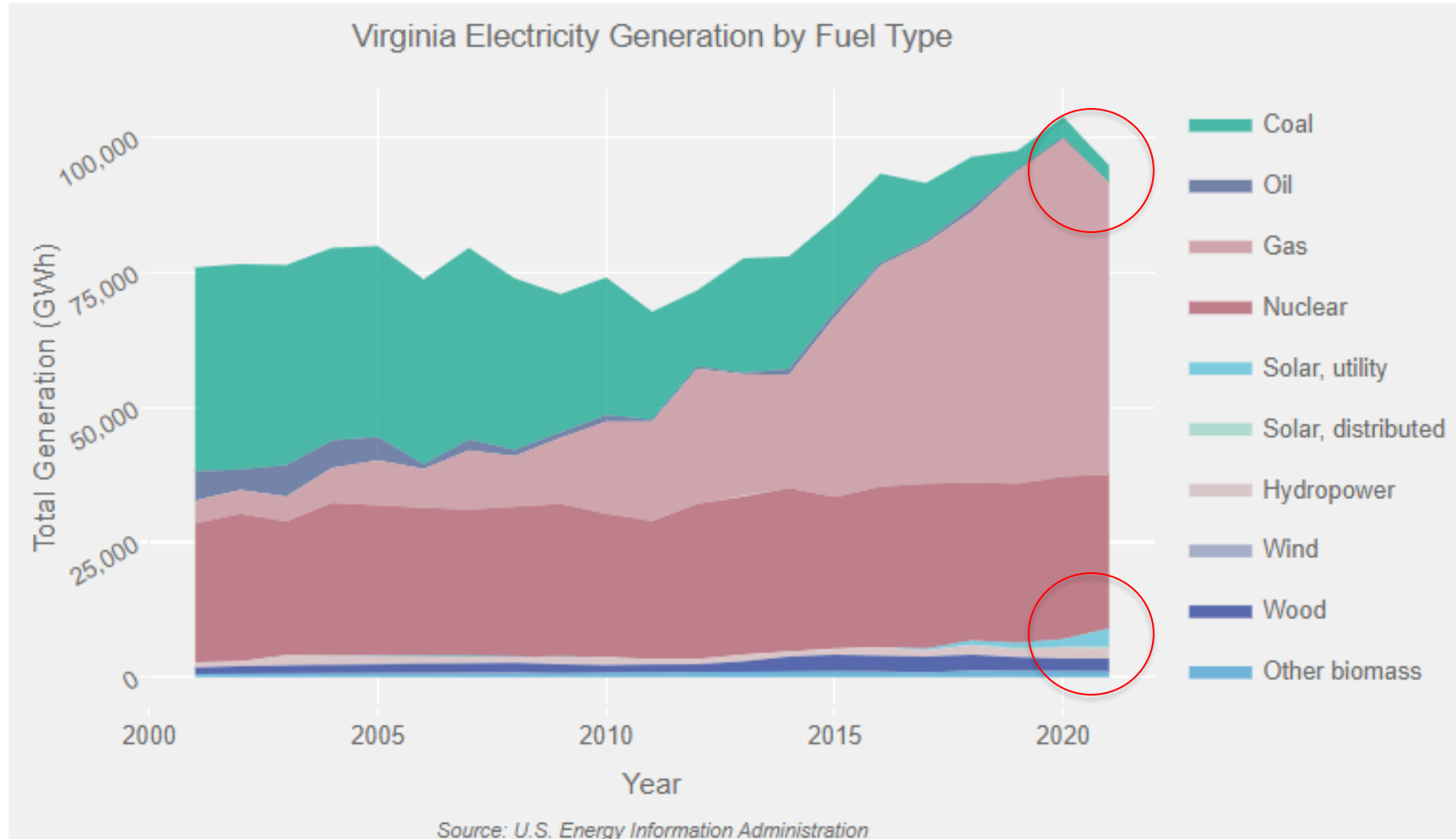
Virginia's Energy Transition



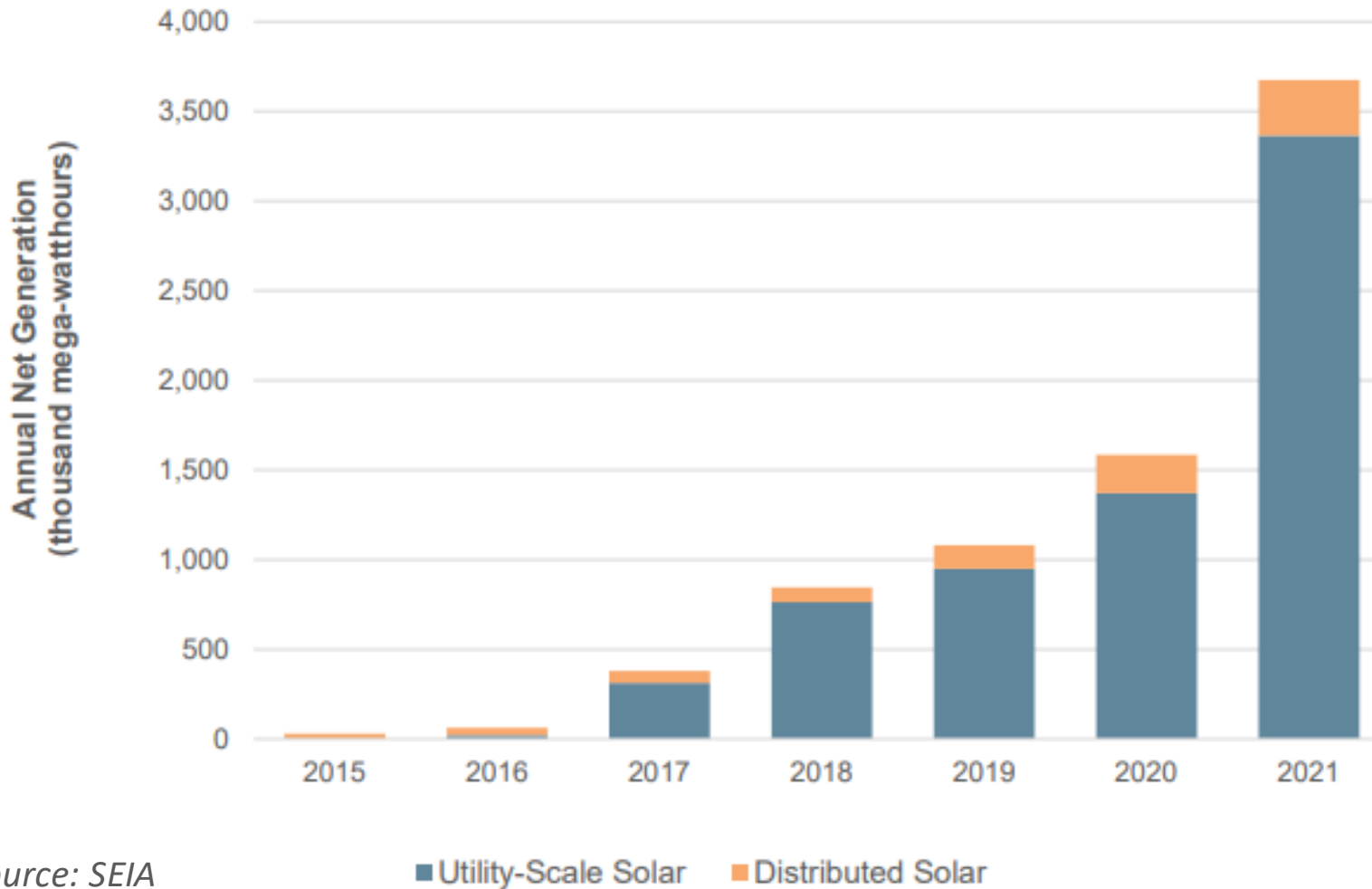
Challenges are also Opportunities:

- Environmental impacts
 - Site selection, low impact design, agrivoltaics, O&M (pollinators) and decommissioning (soil remediation)
- Legacy coal plants closing (reduction in one industry for another)
 - Economic opportunities= workforce development, revenue, lease income
 - Equitable transition= access, lowest cost electricity
- Aging grid infrastructure; intermittent supply and peak demand
 - Resilience, energy independence, technological advances, coordinated planning
- Increased demand for electricity
 - Reduced carbon emissions, energy efficiency, innovation

Trajectory of Energy Generation in Virginia



Annual Net Generation from Solar in Virginia



Virginia has seen exponential growth in the total electricity generated annually from solar— from **30** gigawatt-hours in 2015 to **3,675** gigawatt-hours by end of 2021.

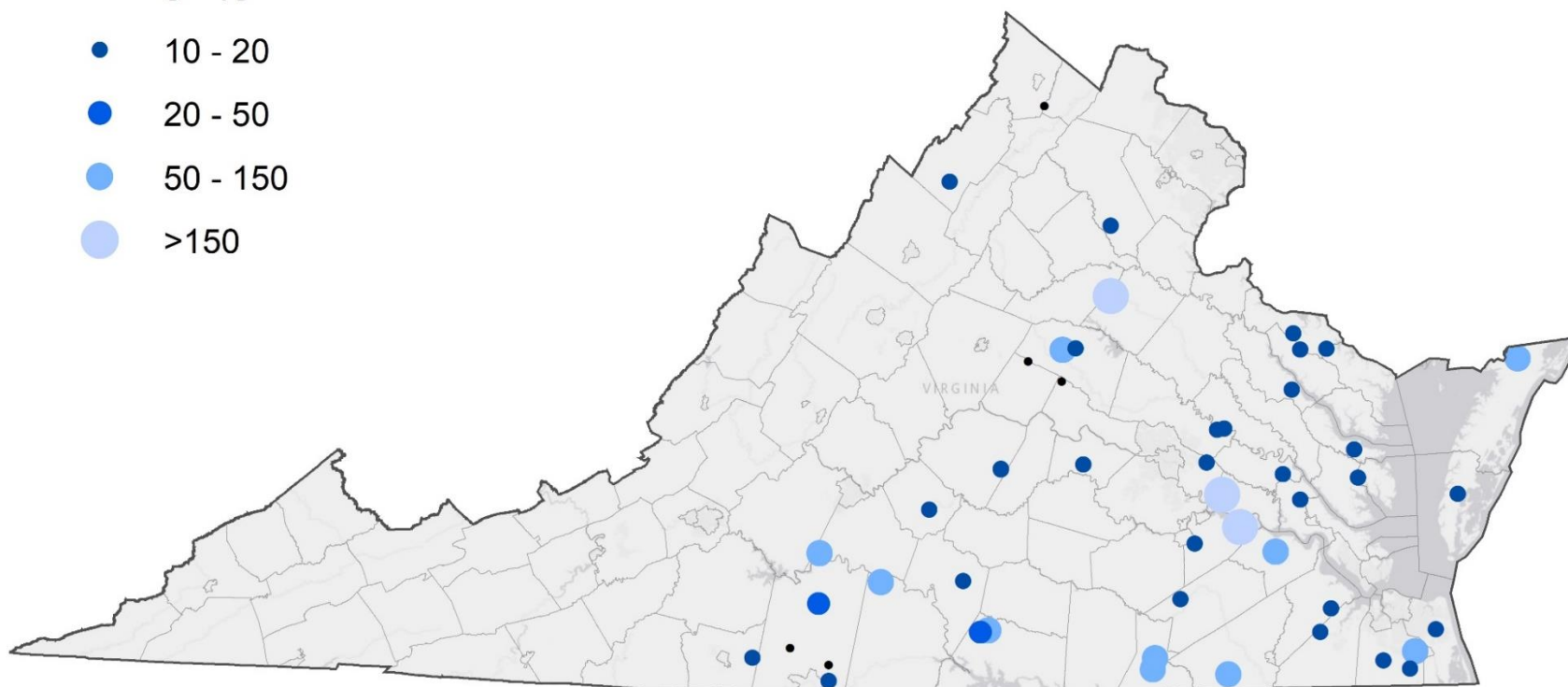
*Source: SEIA

Solar Facilities Active in Virginia

Active Virginia Solar Facilities (52)*

Nameplate Capacity (MW)

- 5 - 10
- 10 - 20
- 20 - 50
- 50 - 150
- >150



*Source: Virginia Energy, Active Facilities as of 5.1.22

Solar Policy and Permitting



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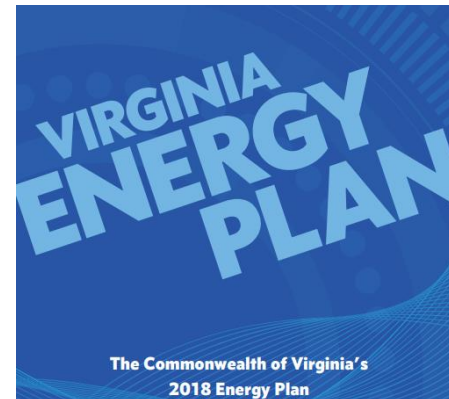
Energy Planning

- Energy infrastructure is a critical component and foundation of the built environment.
- Maximize the efficient use of energy resources, while minimizing impacts on the environment, at least cost to the ratepayer.

PJM/FERC Transmission Planning



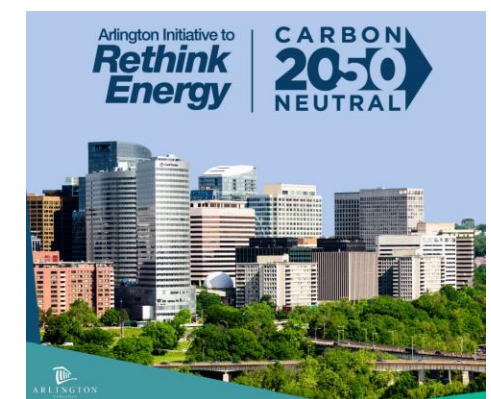
*Virginia Energy Plan**



Utility Plans



Local Energy Plan



**2022 Update In development*

§ 45.2-1708. (Effective October 1, 2021) Role of local governments in achieving objectives of the Commonwealth Clean Energy Policy.

A. In the development of any local ordinance addressing the siting of renewable energy facilities that generate electricity from wind or solar resources, such ordinance shall:

1. Be consistent with the provisions of the Commonwealth Clean Energy Policy pursuant to subsection E of § 45.2-1706.1;
2. Provide reasonable criteria to be addressed in the siting of any renewable energy facility that generates electricity from wind or solar resources. Such criteria shall provide for the protection of the locality in a manner consistent with the goals of the Commonwealth to promote the generation of energy from wind and solar resources; and
3. Include provisions establishing reasonable requirements upon the siting of any such renewable energy facility, including provisions limiting noise, requiring buffer areas and setbacks, and addressing generation facility decommissioning.

“A.9. Ensure that energy development projects avoid, minimize, and, if necessary, mitigate damage to the Commonwealth's natural and cultural resources.” Va. Code § 45.2-1706.1

Virginia Solar Policy- New in 2022

HB 206 * Solar projects permitted by DEQ's Permit-by-Rule (PBR) process will be subject to mitigation if they have significant adverse impacts

- Significant adverse impacts includes:
 - More than **10 acres** of prime agricultural soils (USDA)
 - More than **50 acres** of contiguous forest lands
- Will not impact projects with interconnection approval before December 31, 2024
- Currently, rulemaking being led by [DEQ and stakeholder group](#)

Virginia Solar Policy, cont'd



HB 894 * Virginia Cooperative Extension to develop a map/repository of prime farmland to assist localities in siting determinations of solar facilities.

- Initial report on development of a map due by December 1, 2022
- Includes Department of Agriculture and Consumer Services, Forestry, Conservation and Recreation, and Energy

HB 774/SB 499 * The SCC will convene stakeholder workgroups to analyze the life cycle of renewable energy facilities.

- Representatives of local governments are specifically mentioned as a stakeholder
- Study recycling, waste strategies, liability for decommissioning, impacts on life cycle of farming/forestry, and beneficial economic impacts.
- Initial report submitted by May 1, 2023

Utility Scale Solar- Reviews

PJM Interconnection

- Developer submits request for interconnection studies/agreements to PJM (or SCC)
- Lengthy, involved process (years); likely started prior to local and state approvals

Local Review (“Local Certification”)

- Land Use and/or Zoning approval (public, stakeholder input)
- Va code §15.2-2232 requires substantial accord with comp plan; exceptions and may be waived
- Typically started prior to state review (Note: HB 206)
- E&S, SWM review, land disturbing and building permits

State review

- “Section 130”, Notice of Intent and Permit By Rule (PBR) application, or SCC review
- PBR- Reviews proposed project to ensure potential significant impacts to natural, cultural or historic resources are avoided or mitigated. (HB 206)
 - Requires local certification for a “complete” application

Virginia Solar Survey

Collected data and information related to each city and county's experience, readiness, efforts and needs related to solar and energy storage.

Results inform the development and delivery of research, resources, policy guidance, and technical assistance.

<https://solar.coopercenter.org/solar-survey>



About

Developed in partnership with Virginia Energy and the Questionnaire Development Team

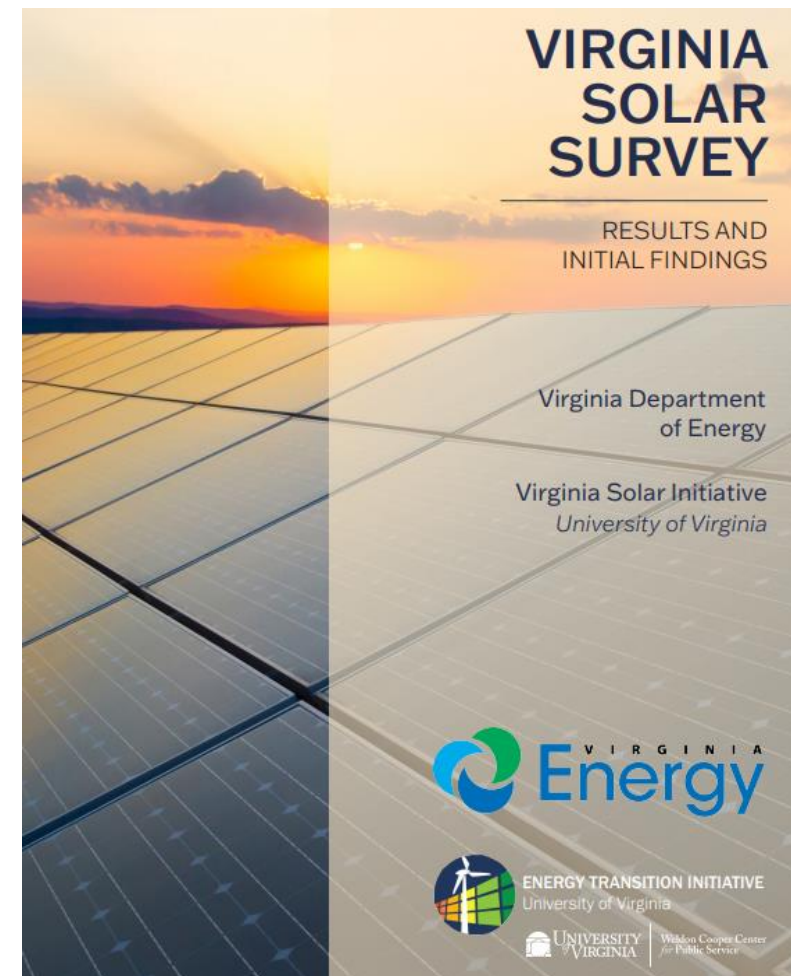
- The Berkley Group, DEQ, SolSmart, TNC, VACo, VAPDC

Administered to City/County Planning Directors, late 2021

Confidentiality of individual responses guaranteed;
information aggregated to regional level

130 questions possible, survey logic, free response, 9 sections:

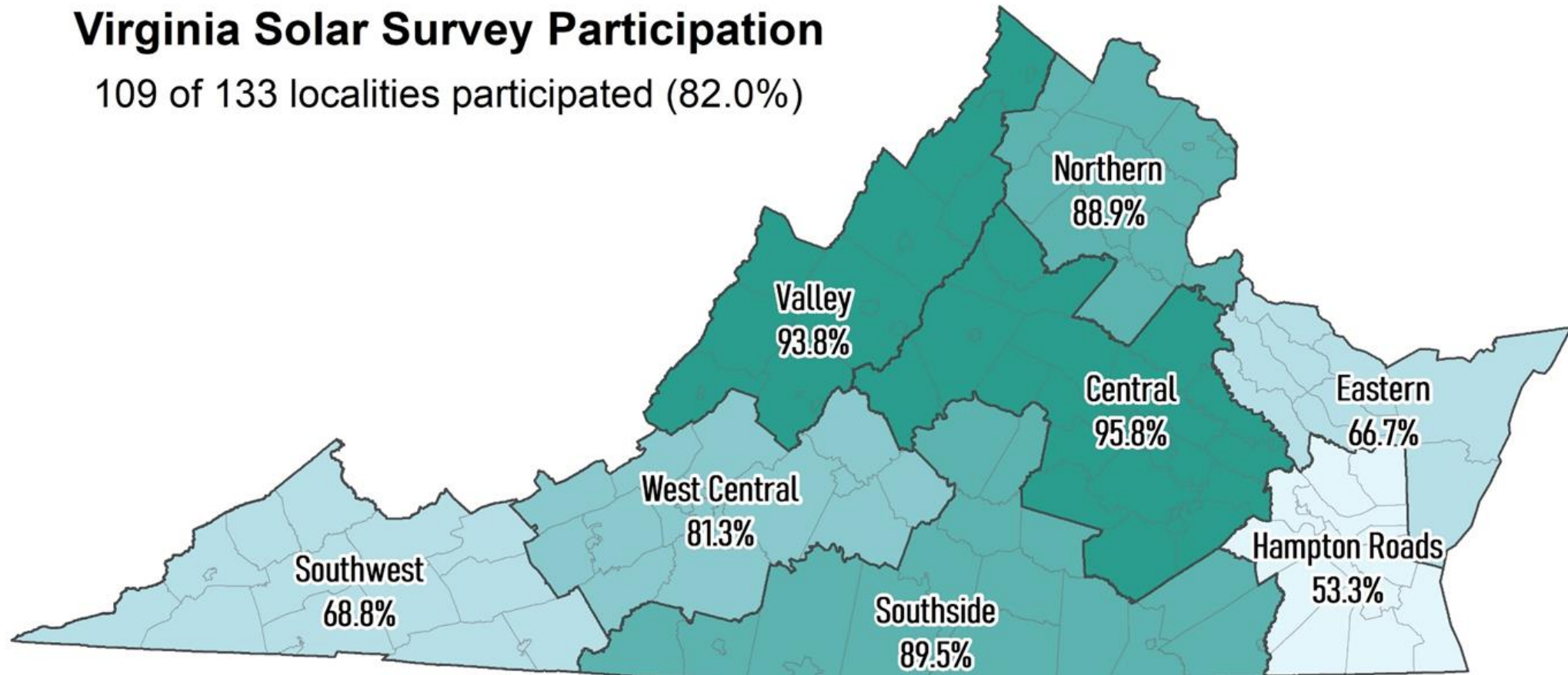
- Solar Readiness, Energy Procurement, DG, USS, Comp Plan, Zoning, Economic Development, Energy Storage, General



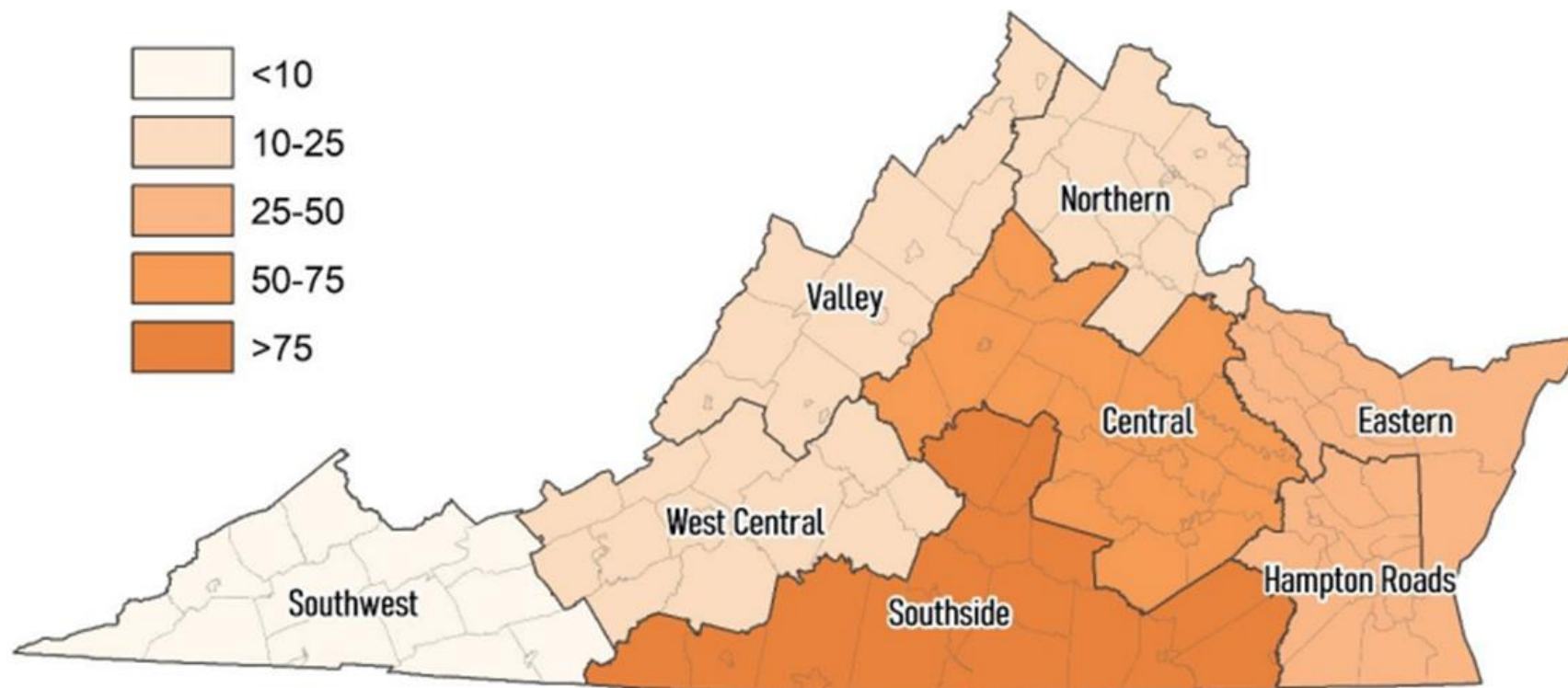
Participation

Virginia Solar Survey Participation

109 of 133 localities participated (82.0%)



Large-Scale Solar Applications Reviewed

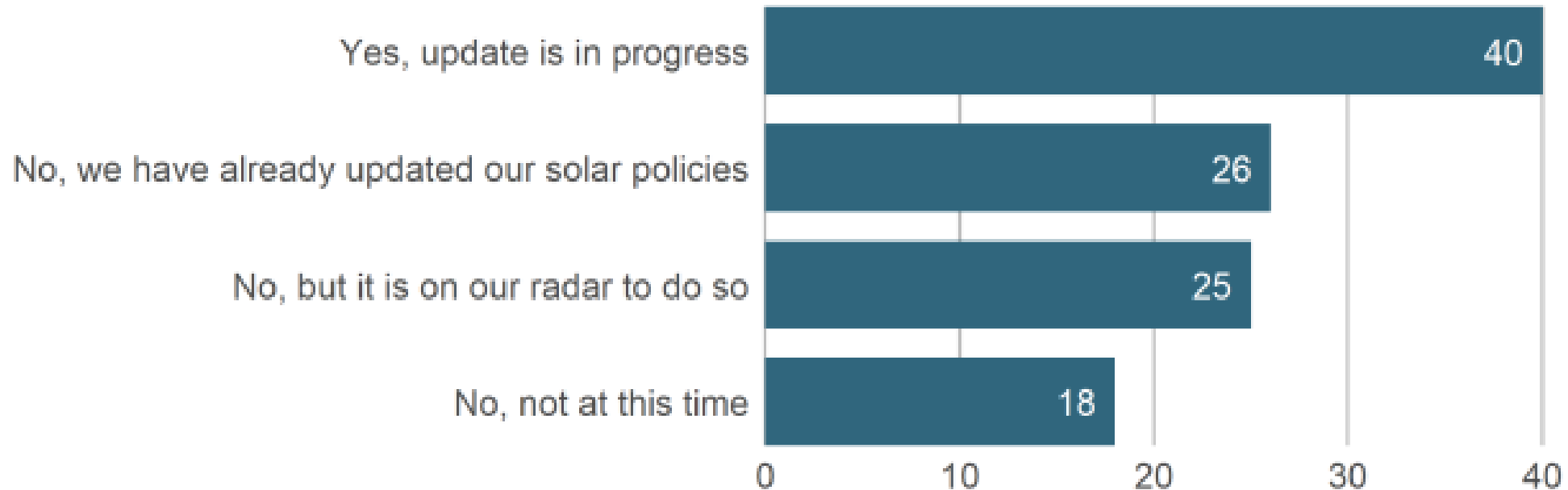


Total Reviewed Large-Scale Solar Applications (>500 kW) by Region

**Source: Virginia Solar Survey*

Solar Readiness

Q 1.1: Is your locality preparing to update or is actively updating its solar policies, regulations, and/or application and permitting process? ($n=109$)



Where Do Local Governments Turn?

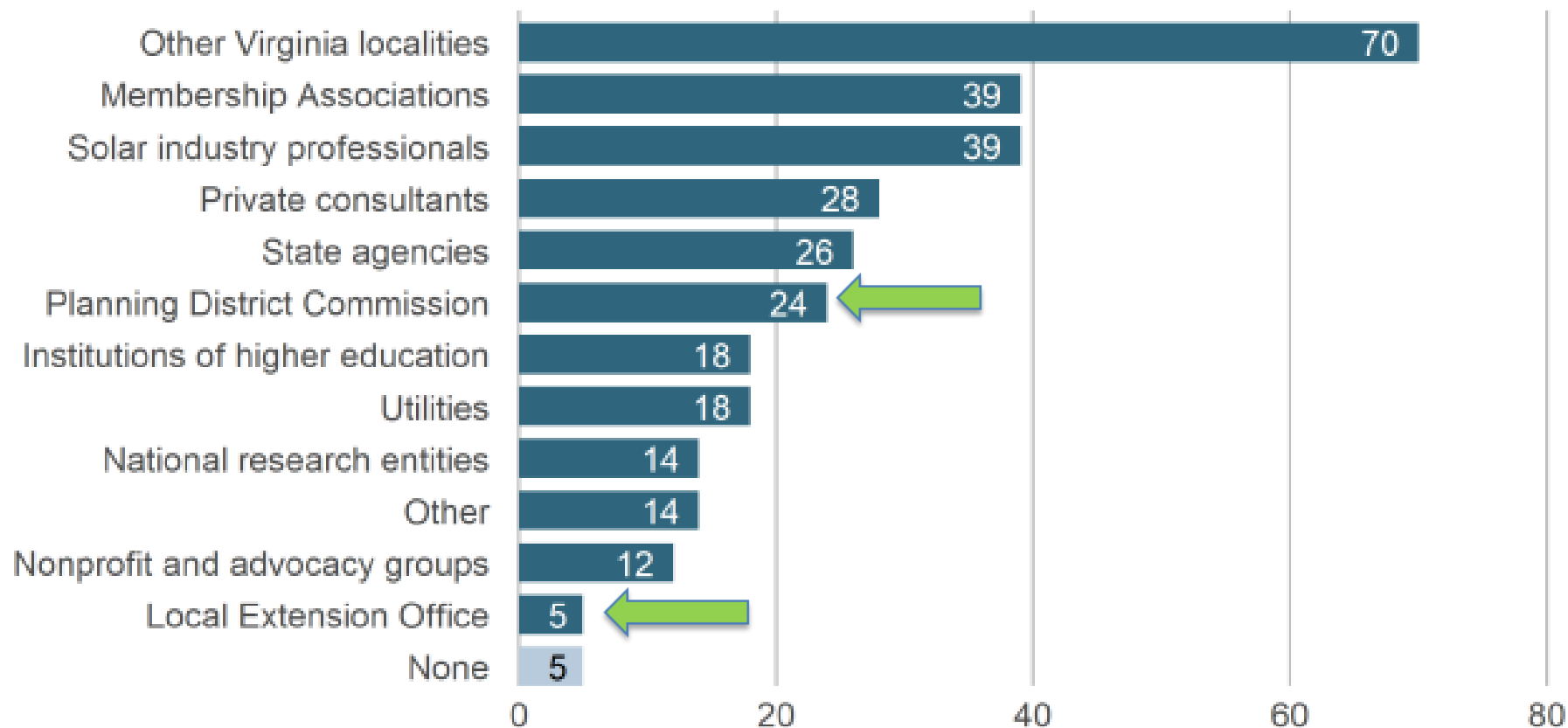
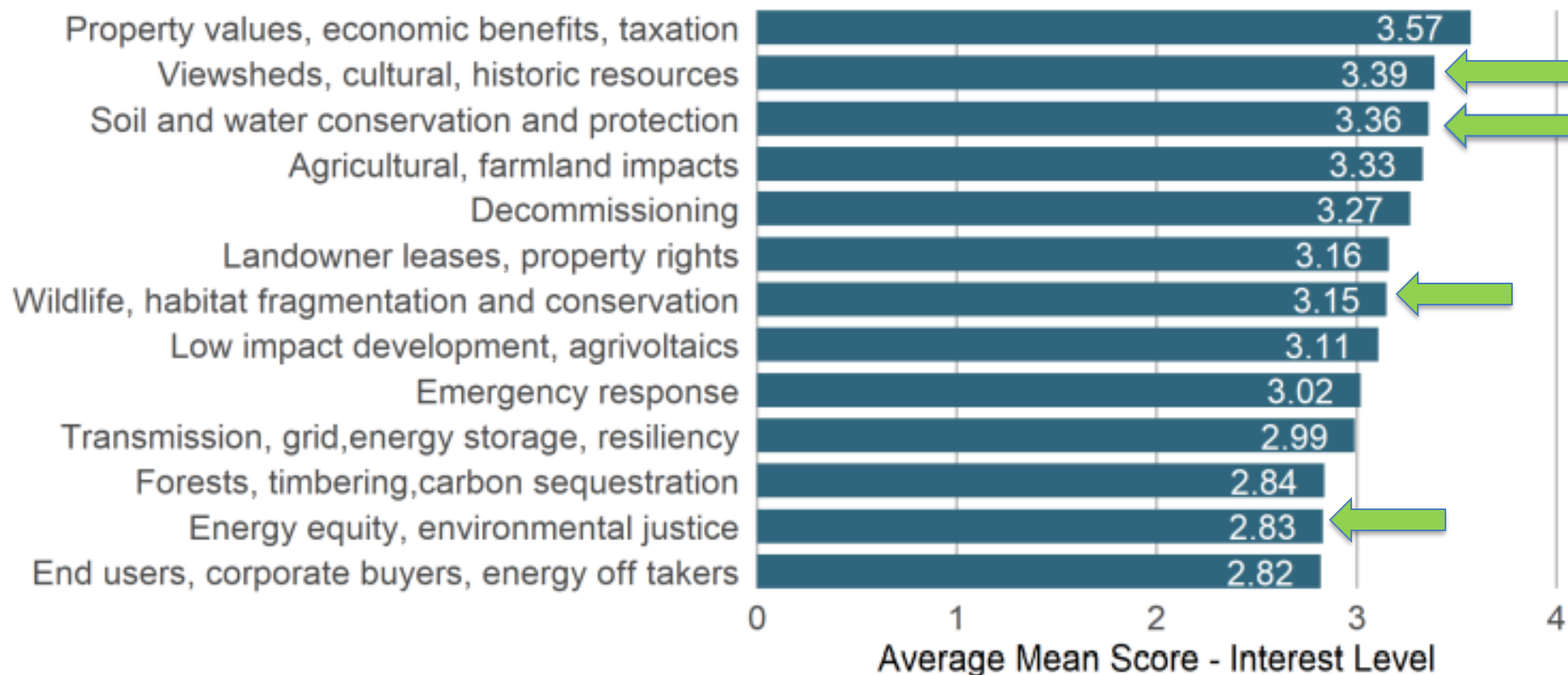


Figure 21. Resources Used by Localities to Understand and Develop New Solar Policies (Q1.2)

Level of Interest in Solar Topics

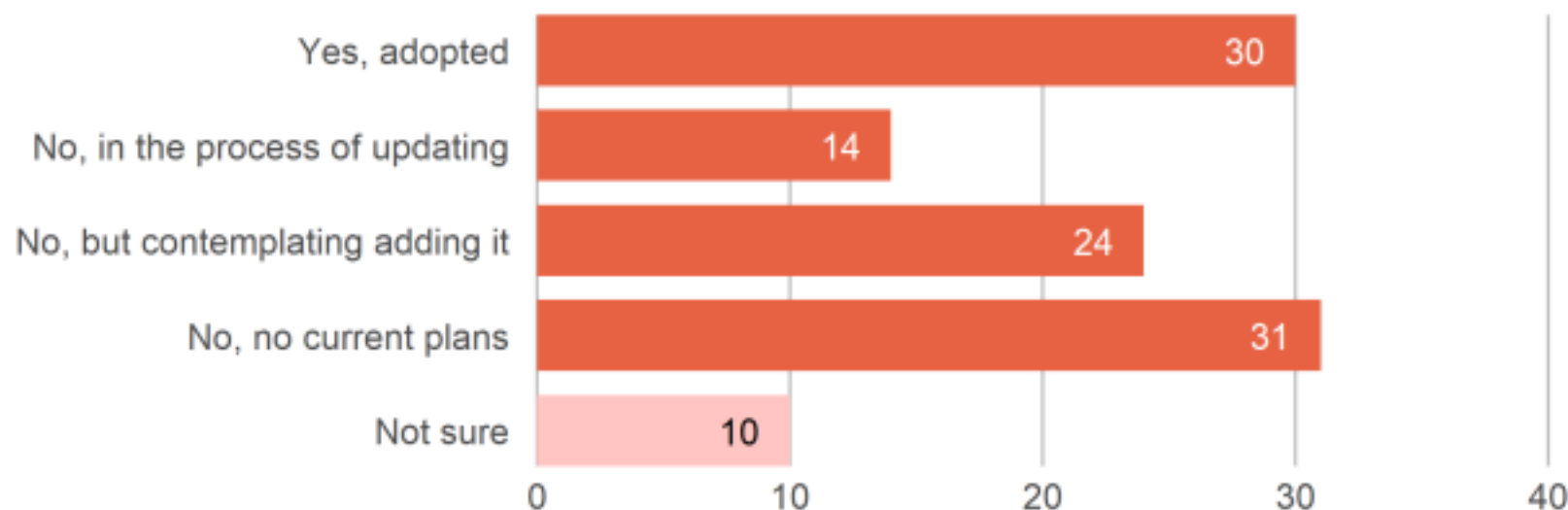


*Level of Interest: **1**-No Interest, **2**-Minimal Interest, **3**-Some Interest, **4**-A lot of Interest, **5**-The Most Interest

Comprehensive Plan- Clean Energy

Q 5.1.2: Does your comprehensive plan or policies adopted by reference speak to (renewable/clean energy)? ($n=109$)

Renewable/Clean energy

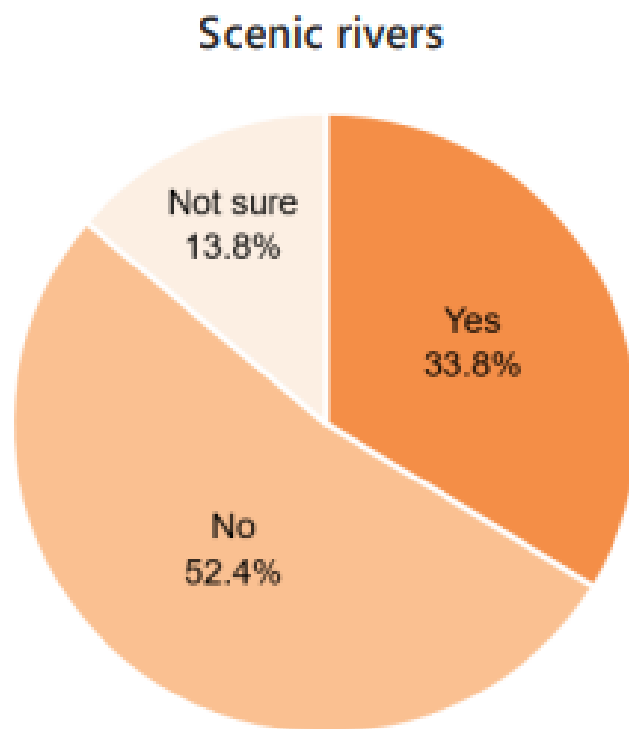


In Central VA:

Yes, adopted 21.7%
No, but in process 21.7%
No, contemplating 30.4%
No, no plans to 21.7%
Not sure 6.3%

Local Policy- Scenic Rivers

Q 4.11.8: Do your local regulations specify criteria for the evaluation of (Scenic Rivers) when reviewing a utility-scale solar application? ($n=80$)



In Central VA:
47% said yes
33% said no
33% said not sure

Resources

Opportunities to inform policy and future siting and development of solar



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State Policy

Current and upcoming opportunities to influence regulations, rulemaking and implementation of current state policies:

HB 206

- Mitigation of significant impacts to prime ag and forested lands

HB 894

- Map prime ag land to assist localities

HB 774

- Analyze lifecycle of renewable energy facilities

Local Planning

Long Range Planning

- **Comprehensive Plan**- vision and strategies for economic development, sustainability, resiliency, environment and resource conservation, energy, etc.
- Regional, special interest, hazard mitigation planning

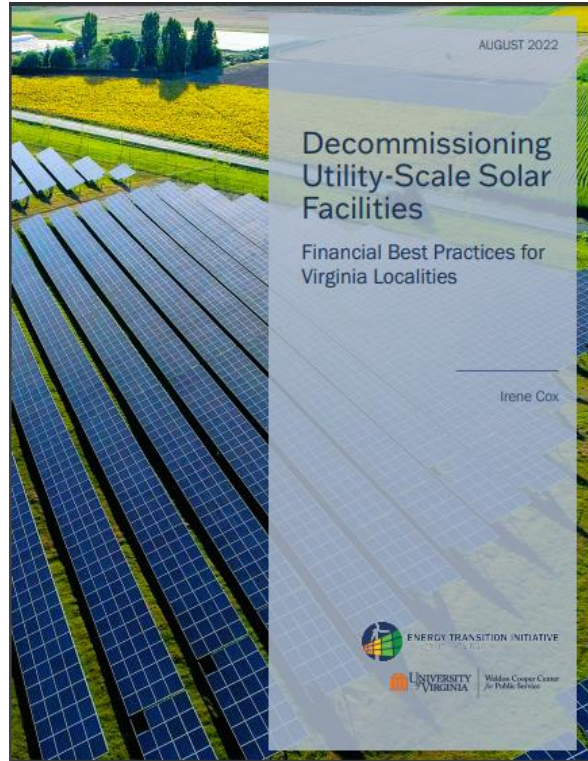
Zoning & Policies

- **Zoning Ordinance**, solar ordinance, project specific conditions
- **Siting agreements**- negotiated benefits per § 15.2-2316.7
- Tax policies, maximize revenues
- **Operation and Maintenance Plans, Decommissioning Plans**

Development Review

- Permitting and Inspection, procedures, fees
- Engineered site plan, E&S/SWM plans, etc.

ETI Decommissioning Report



Decommissioning best practices with respect to:

- Context-appropriate site removal and land restoration regulations
- Legal protections for the locality
- Financial assurance mechanisms and posting methods
- Adjustments to decommissioning security which account for inflation, any administrative factor, and salvage credit.
- Regulations required by state law are distinguished from those which a locality may enforce at its discretion

<https://solar.coopercenter.org/reports/decommissioning-utility-scale-solar-facilities>

By Irene Cox

Solar @ Scale

- <https://icma.org/programs-and-projects/solarscale>
- Funded by US DOE, developed by ICMA and APA
- Focus on large-scale solar, best practices
- Local Government Guidebook for improving outcomes
- Webinar Series
- **Coming Soon:** Regional workshops



SolSmart Advisors Program



National designation program; Virginia advisors

Helps localities implement best practices that reduce barriers and soft costs

Led by ICMA and funded by US DOE Solar Technologies Office. Provides guidance to increase operational efficiencies:

- Planning and Zoning
- Permitting and Inspections
- Government Operations
- Market Development
- Community Engagement



Eight SWVA communities receive SolSmart designation (2019). *Photo credit: Chelsea Barnes, Appalachian Voices*

Thank You.

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[*solar.coopercenter.org*](http://solar.coopercenter.org)



APPENDIX



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ABOUT ETI

The Energy Transition Initiative

The Energy Transition Initiative at the University of Virginia consists of a team of researchers at UVA's Weldon Cooper Center for Public Service exploring clean energy sourcing in response to new legislation mandating net carbon emission neutrality in Virginia by 2050. We advance these goals by researching clean energy and sustainability practices; by developing and maintaining tools to help localities understand the process, costs, and benefits of adopting cleaner energy technologies; and by engaging directly with policymakers, energy providers, entrepreneurs, consumers, and other interested stakeholders to smooth the transition to a sustainable energy economy.

ABOUT WELDON COOPER CENTER AT UVA

The Weldon Cooper Center for Public Service

In every project we undertake and every community we serve, the Weldon Cooper Center draws on eighty years of experience and expertise from across the organization to support the needs of our clients and partners. Cooper Center professionals embrace mission- and impact-driven service to individuals, organizations, governmental bodies, and communities seeking to serve the public good. We conduct advanced and applied research in collaboration with clients so they may make a difference in governance and community life. We offer training programs and expert assistance to public leaders and skill development for political leaders who seek to work cooperatively with others. Our values of access, collaboration, commitment to community, and impact guide our work. We welcome partnerships and invite conversation about your goals and needs.

State Policies That Add Tools for Localities

Revenue Share for Solar Energy Projects (§58.1-2636 and 58.1-3660)

- **Locality may adopt by ordinance a revenue share policy to assess a revenue share of up to \$1400 per MW of nameplate capacity of any solar project greater than 5 MW**
- In 2021 a provision was added that the max revenue share a locality can impose shall increase 10% eff July 1, 2026 and every 5 years thereafter

Local Tax Exemption; Solar Energy Equipment (§58.1-3660)

- **Updates Machinery & Tools tax exemption policy to a stepdown: 80% the first 5 years, 70% the next 5, 60% all remaining years in service**
- Note: 2022 GA made rooftop residential under 25kW exempt automatically
- §58.1-3661 allows local tax exemption, can be used to incentivize commercial DG and more

National Standards for Solar Energy Projects (§15.2-2286 A 13)

- **Allows a locality to incorporate into its zoning ordinance generally accepted national standards for solar PV and battery storage equipment**

Special Exemption for Solar PV Projects (§ 15.2-2288.8)

- **Allows conditions that require dedications of real property of substantial value to the locality or substantial cash payments for or construction of substantial public improvements.**
- Requires condition be reasonably related to the project; however, the need for the cash, property and/or improvement(s) **need not be generated solely by the project approved.**

Tools for Localities, cont.

Siting Agreement with Host Locality

**adopted in 2020, updated in 2021 (§15.2-2316.6 – 15.2-2316.9)*

- Requires developer to give written notice to locality of intent to locate a project and request a meeting
- **Allows localities to negotiate siting agreements** that may include terms and conditions such as:
 - (i) mitigation of any impacts of such solar facility
 - (ii) financial compensation to address the locality's capital needs as set out in the locality's capital improvement plan, its current fiscal budget or its fiscal funds balance policy; or
 - (iii) assistance with deploying broadband in the locality.
- Executed agreement constitutes substantial accordence with Comprehensive Plan 15.2-2232 review

Planning for Solar

Questions to ask:

- What policies and codes do we have in place and do any of them speak to solar or renewable energy?
- What are our stated goals and how can solar fit in to and facilitate those goals?
- What role can we play in contributing to our state clean energy goals?
- What policies, procedures, incentives, agreements do we need in place to facilitate the outcomes we desire?

Examples:

Comprehensive Plan

- Land Use Plan, Energy Plan, Economic Development Plan, Sustainability goals, Climate Change or Resiliency goals
- Impact analysis studies
- Master Plans or Policies adopted by reference

Codes and Ordinances

- Zoning Code, Site Plan Ordinance, Building Code, E&S Program and Regulations
- Tax Code- M&T/Real Estate Tax, Revenue Share, Local tax option on solar equipment

Project Specific/Agreements

- Negotiated siting agreement
- Conditions
- Operating and Maintenance Plan
- Decommissioning Plan

Planning for Solar, cont.



Utility scale:

- Consider solar in relation to all adopted goals: economic, land use, sustainability, etc.
- Properties for reuse? Previously disturbed lands, brownfields, landfills, AML
- Consider prioritizing preferred locations rather than unintentionally excluding appropriate sites
- Identify conservation goals, sensitive lands to avoid, prime agriculture and forest lands, cultural and historic lands, or viewsheds to protect; consider mitigation and Low Impact Development practices available
- Consider policy tools to help maximize benefits: balance the use of siting agreements and conditions with zoning ordinance regulations
- Consult with state agencies like VaEnergy, DEQ, DWR, and DCR for most up-to-date guidance

Utility Scale Solar Project Considerations

Factors in USS siting and feasibility include (not limited to):

- Proximity to transmission lines (interconnection studies and agreements, CPCN)

- Economies of scale, project economics

- Terrain- prefer cleared, relatively flat land (0-10%); technology is improving

Locality Considerations:

- Siting- avoidance of natural, cultural, historic resources and valuable habitats

- Impacts of change in land use?

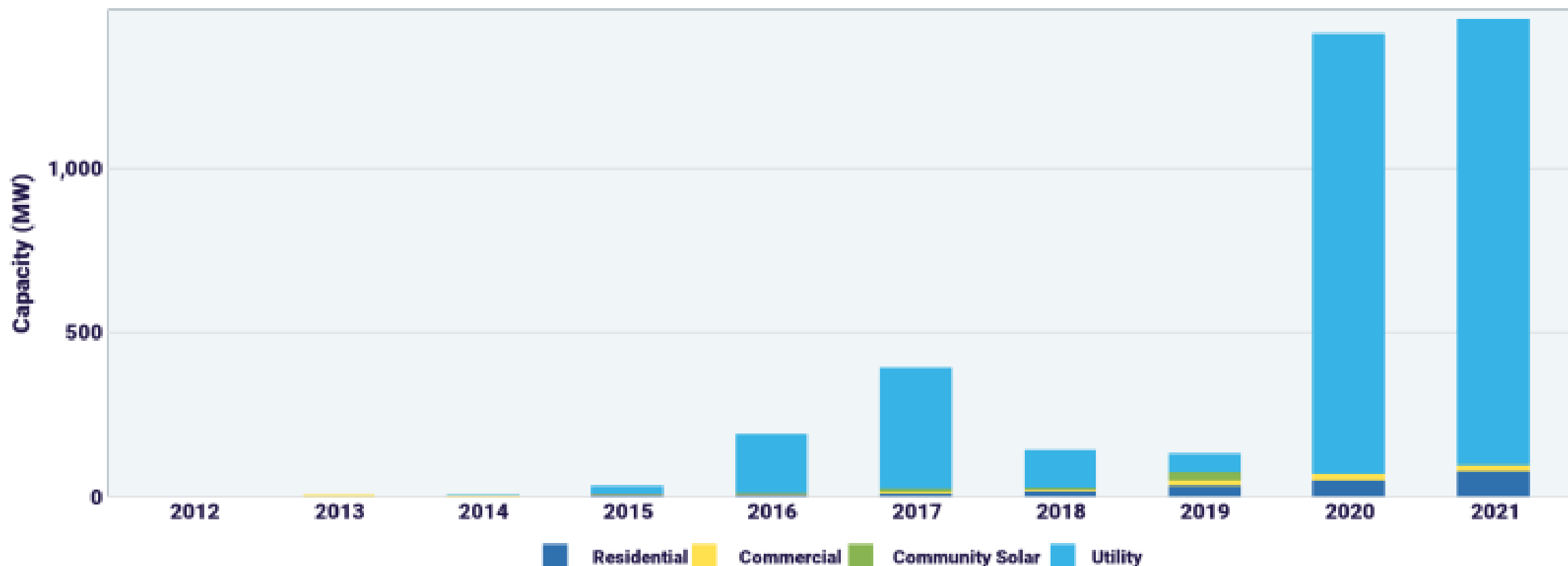
- Project Design- Refer to national standards and best practices when possible

 - Agrivoltaics, Low Impact Development Practices, etc.

- Community and stakeholder input- Earlier the better!

Annual Solar Installations in Virginia

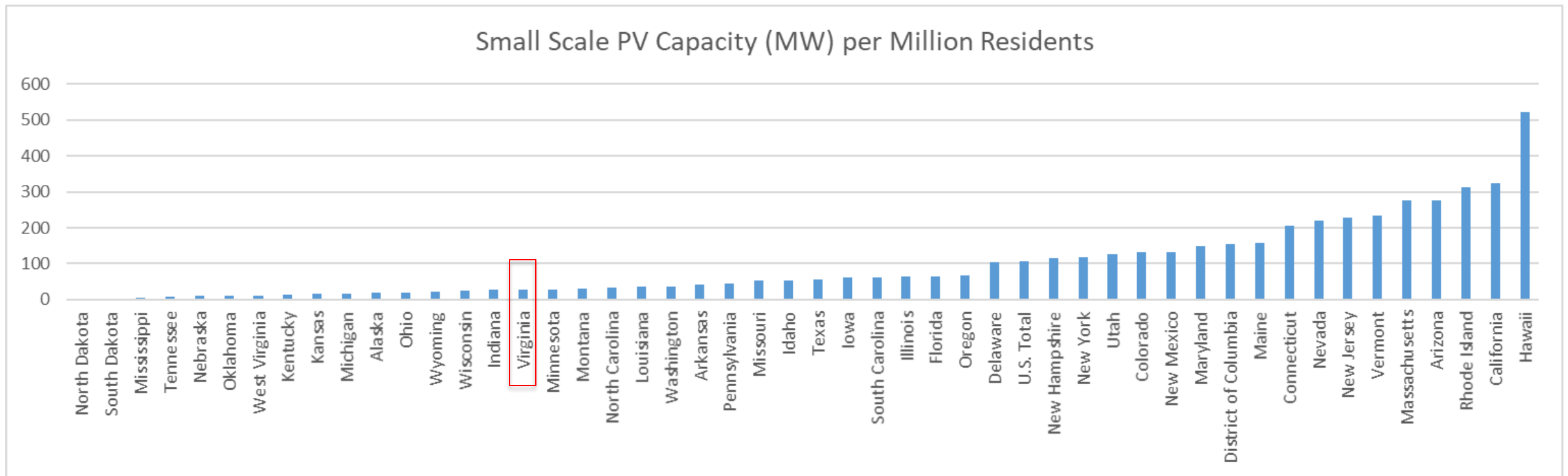
Total installed in 2021: 1,450.50 MW



Source: <https://www.seia.org/state-solar-policy/virginia-solar>

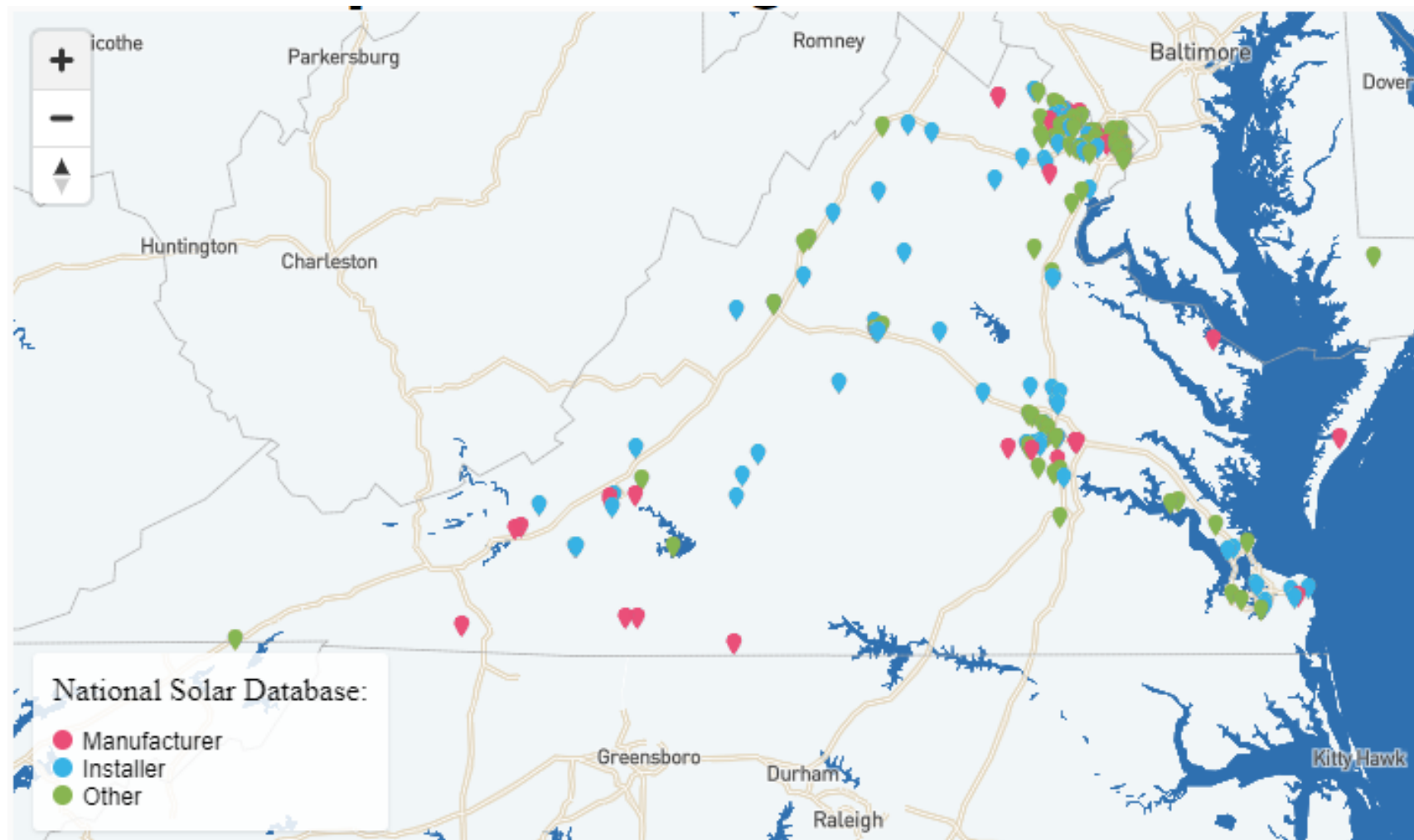
U.S. State Rankings for Solar PV Capacity

- Virginia is 10th in total PV capacity, 8th in utility-scale, and 24th in "small scale"
- Per-capita: 16th total, 9th in utility-scale, and **34th in small-scale per capita**



Source: U.S. Energy Information Administration, [Electric Power Monthly](#), Table 6.2.B (April 2022)

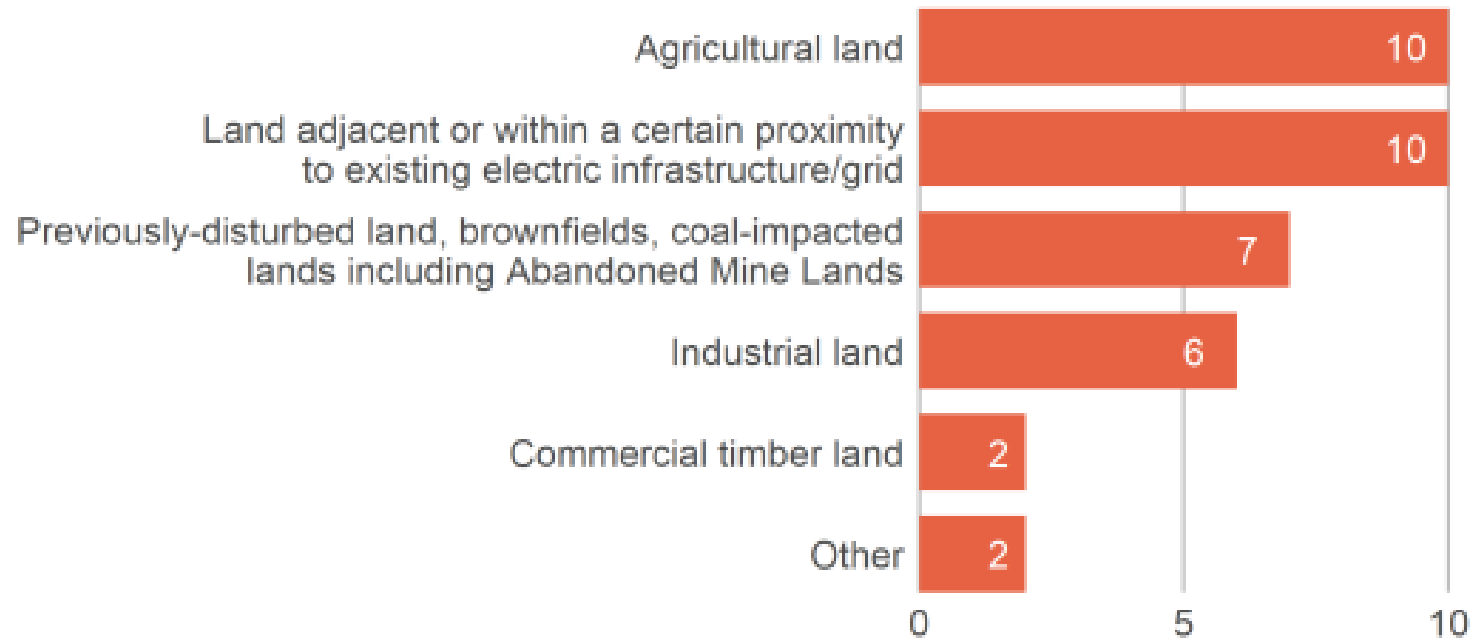
Solar Companies in Virginia



*Source: SEIA

Comprehensive Plan- Prioritized land for solar

Q 5.3: What are the characteristics of the land identified as prioritized for utility scale solar energy generation in your comprehensive plan? ($n=18$)



In Central VA:

Only 2 localities reported they had prioritized the general type of land for solar and they identified ag, adjacent to grid, brownfields, and industrial.



OPPORTUNITIES OF DUAL USE SOLAR

WHO IS ENCORE?



BUSINESS AS A FORCE FOR GOOD



4,878 B Corporations 79 Countries
>400,000 Workers 1 Unifying Goal



OVERVIEW

- Pollinator friendly ground cover
- Solar grazing
- Solar and crops
- Discussion / Q&A



WHY POLLINATOR-FRIENDLY GROUND COVER?

- Better ecosystem service values than BAU
- Long term cost efficiency
- Pollination = food security/resilience
- Address declining pollinator populations
- Increased PV production
- Added value in permitting process

MAGEE HILL SOLAR

11 acre, 1.7 MWp

First pollinator friendly solar project in VT (2017)



Long term cost effectiveness

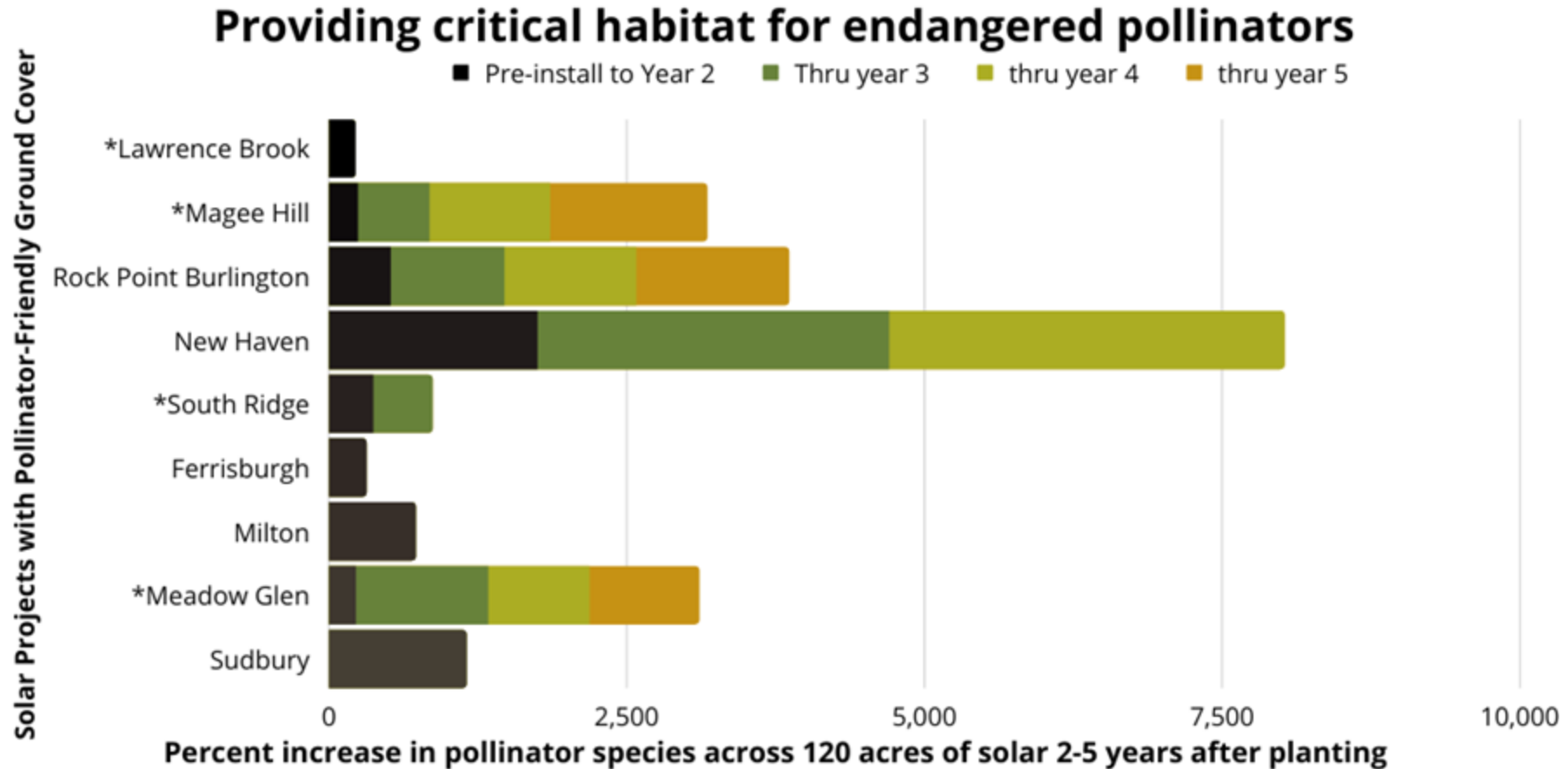


Solar honey!



Happy Neighbors

RESULTS! INCREASED POLLINATOR POPULATIONS



SOLAR GRAZING

- Lower long term cost vs. mowing
- Zero carbon impact
- “good neighborly”
- More effective under panels
- Lower damage risk
- Better ecosystem service values than BAU
- Supply / demand challenges
- Need for processing capacity (wool, dairy, meat)

NAVA SOLAR

713 kWp solar project in Royalton, VT



Rural site - difficult to find
consistent mowing contractor



Reaching those hard to reach spots



Restoring pasture



Robust contracts (LDs!)

SOLAR AND CROPS

- Colocation of crops and solar
- Energy AND Food!
- Location dependent
- Cost considerations





RESOURCES

- Summary of [US DOE InSPIRE program](#) for agrivoltaic research:
- Summary of [NREL work on InSPIRE](#) program, with additional data:
- [American Farmland Trust](#) white paper on agrivoltaics
- [Yale Climate Connections Report](#) on Agrivoltaics
- [EPRI Guidance for Sustainable Solar Development](#) (includes references to agrivoltaic principles)
- [Bee the Change](#)
- [American Solar Grazing Association](#)
- [AgriSolar Consulting](#)
- [AgriSolar Clearinghouse](#)
- [National Center for Appropriate Technology](#)



(During Construction)

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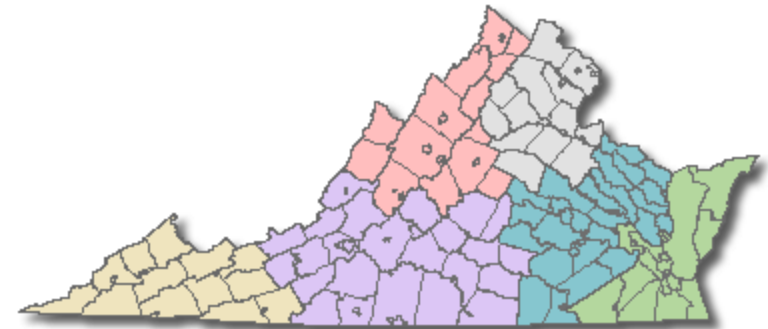


Environmental Justice in Virginia Office of Environmental Justice

Chad Martin

Environmental Justice Coordinator – Blue Ridge, Valley,
Shenandoah

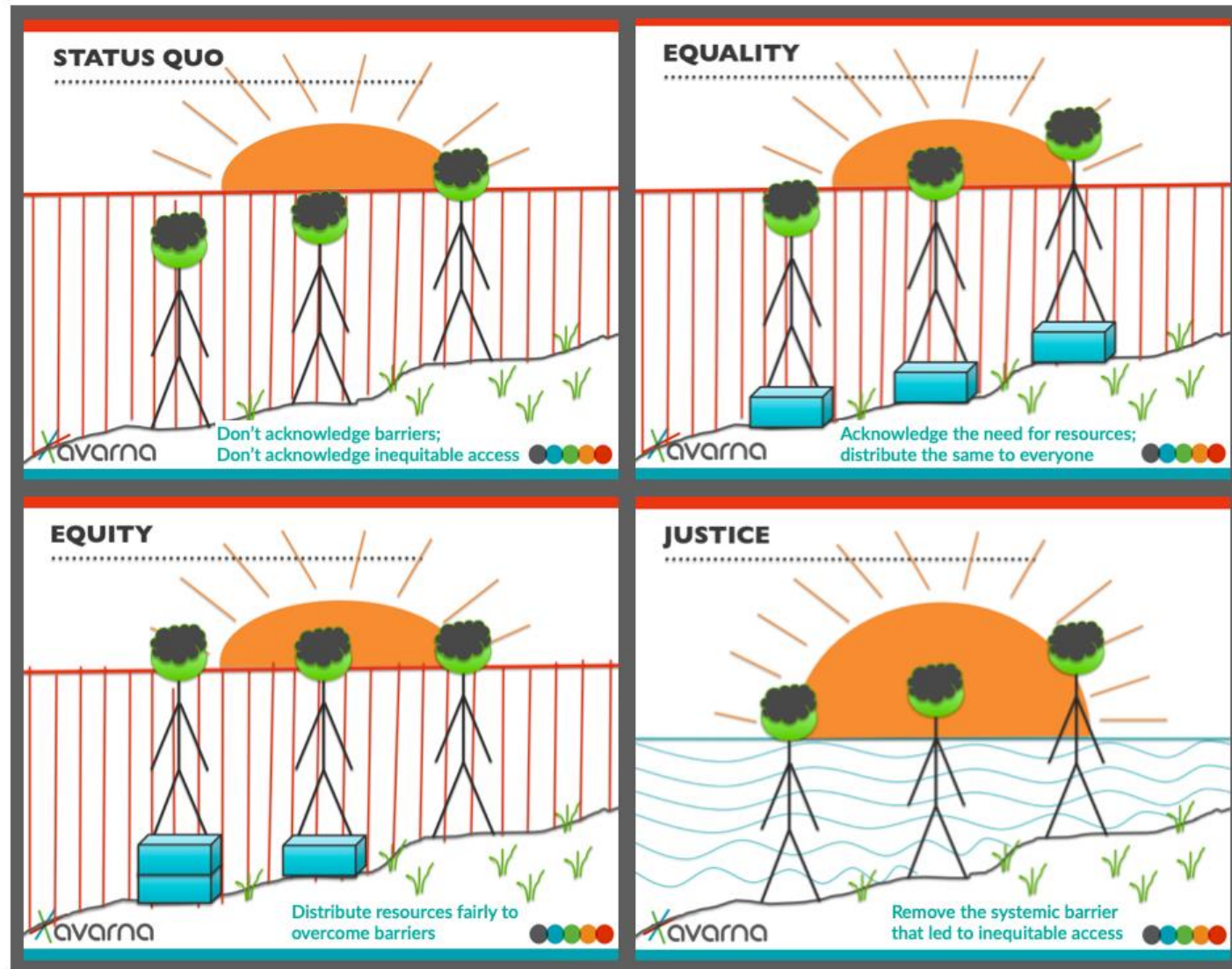
September 28, 2022 – Presentation



Presentation Overview

- Defining Environmental Justice
- A (Very) Brief History of Environmental Justice Movement and Laws
- Intersections of Environmental Justice, Environmental Laws, and DEQ
 - What does DEQ do?
 - Environmental Justice at DEQ before 2020
 - Virginia Environmental Justice Act
- Moving Environmental Justice Forward at DEQ
- VAEJScreen+ Tool
- Community Engagement Strategies
- Tidewater Air Monitoring Evaluation Project
- Q & A





What is Environmental Justice?

The fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy.

Environmental Justice Act of 2020

It is the policy of the Commonwealth to promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities.

Virginia Environmental Justice Act – Key Definitions

"Environmental justice" means the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy.

"Fair treatment" means the equitable consideration of all people whereby no group of people bears a disproportionate share of any negative environmental consequence resulting from an industrial, governmental, or commercial operation, program, or policy.

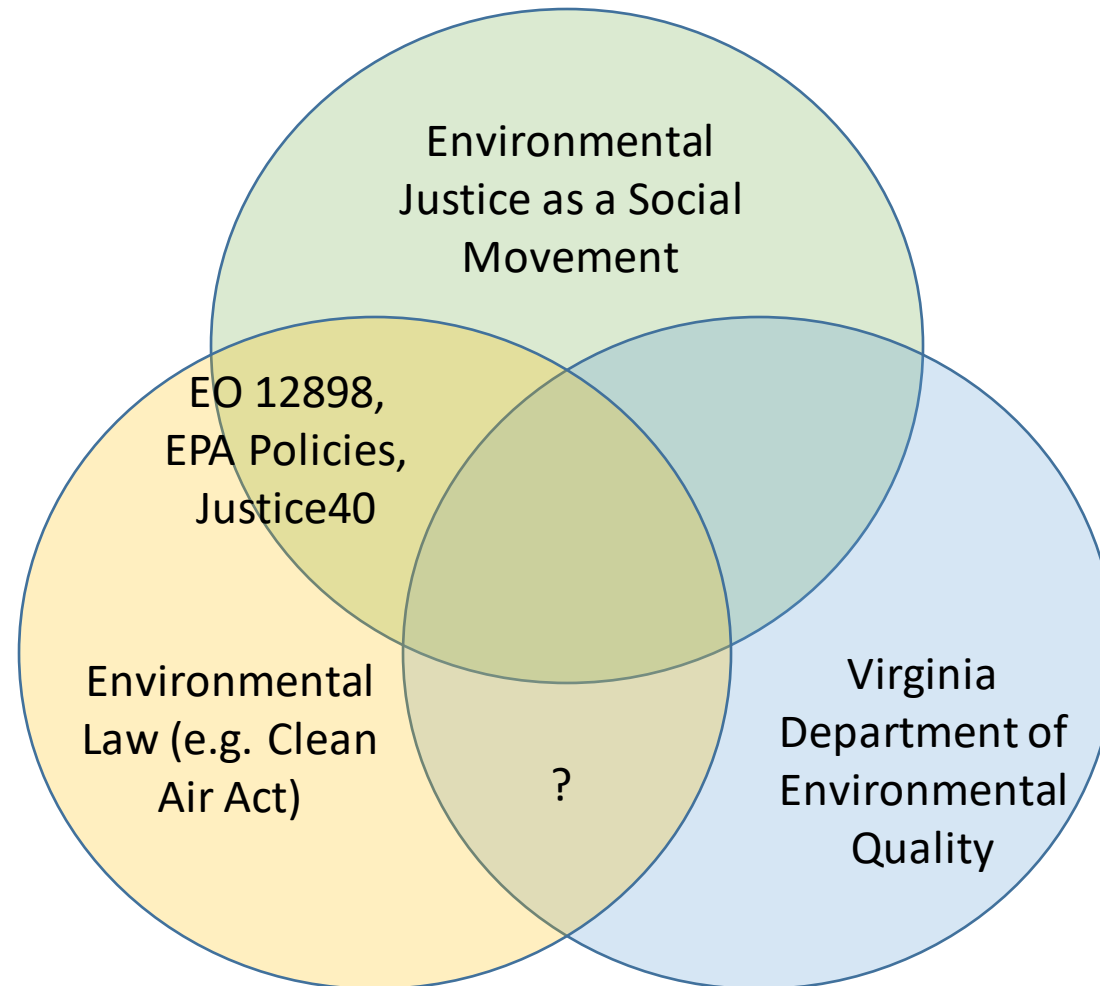
"Meaningful involvement" means the requirements that (i) affected and vulnerable community residents have access and opportunities to participate in the full cycle of the decision-making process about a proposed activity that will affect their environment or health and (ii) decision makers will seek out and consider such participation, allowing the views and perspectives of community residents to shape and influence the decision.

A Brief History of Environmental Justice in the U.S.

- Activism emerging from the Civil Rights Movement and other BIPOC* activism, including sanitation strikes and protests against hazardous waste siting
- Studies and reports followed, with more evidence of environmental injustice, including:
 - General Accounting Office 1983 study showed that hazardous waste landfills in 8 southeastern states were most frequently sited in majority Black and Latino communities
 - United Church of Christ's Commission for Racial Justice 1987 report, *Toxic Wastes and Race in the United States*
- First National People of Color Environmental Leadership Summit (1991) drafted and adopted 17 Principles of Environmental Justice
- Federal Government actions:
 - Environmental Protection Agency developed regulations and procedures to begin to address these issues
 - President Clinton's Executive Order 12898 (1994) to “focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities”

*Black, Indigenous, People of Color

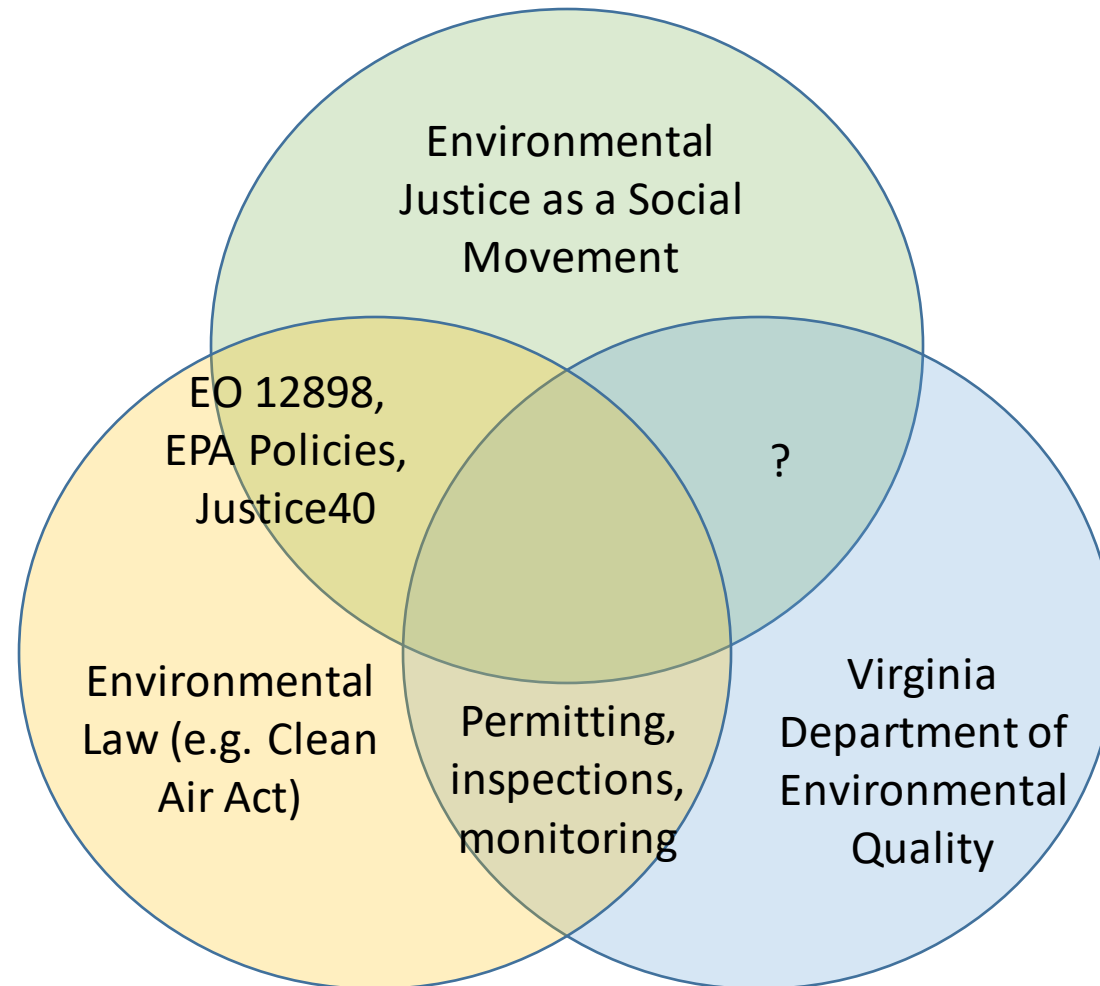
Intersections of Environmental Justice, Environmental Law, and DEQ



What does DEQ do?

- Mission: to protect and enhance the environment of Virginia in order to promote the health and well-being of the Commonwealth's citizens, residents, and visitors in accordance with applicable laws and regulations
- Vision: that all Virginians enjoy cleaner water, better air quality and the productive reuse of land that was once contaminated
- What does that mean in practice?
 - **Permits:** DEQ issues permits to facilities and governing bodies to limit pollution
 - **Inspections/Compliance/Enforcement:** DEQ inspects permitted facilities to ensure compliance
 - **Monitoring:** DEQ monitors air and water quality and implements programs to make improvements
 - **Environmental Impact Review:** for major state projects, federal projects, and a few other categories
 - **Additional Areas:** Coastal Zone Management, Groundwater Management, Environmental Enhancement Programs (<https://www.deq.virginia.gov/home> for more)

Intersections of Environmental Justice, Environmental Law, and DEQ



Environmental Justice at DEQ: 2000 - 2020

- Staff Recruitment
 - 2009: Partnership with EPA, Norfolk State University, and Hampton University
 - Memorandum of Understanding (MOU) to share resources in an effort to attract minorities into the natural resource profession
 - DEQ recruited students for paid summer intern positions from partner universities to work along environmental professionals in the air program. This has been a huge success.
 - 2014 and 2019: Re-signed MOUs
 - (Also recently brought on a talent acquisition specialist)



Environmental Justice at DEQ: 2000 - 2020

- Staff Education:
 - In 2000, DEQ initiated a campaign to educate and train staff about Environmental Justice
 - DEQ's Air program took the lead: trained and educated staff about EJ; interacted directly with EPA's newly formed EJ program; coordinated EJ efforts in Virginia, primarily complaint investigations
- Inspection Strategies:
 - In 2007, DEQ assigned an EJ coordinator, working with agency program managers and EPA
 - In 2008, DEQ worked with EPA Region 3 to develop the first Risk Based Inspection Strategy in the country: Facilities being located within or adjacent to EJ areas is included in reasons to increase inspection frequency
 - In 2008, DEQ introduced EJ into the agency's inspection strategy for all of the core programs: water, air, solid waste, and hazardous waste

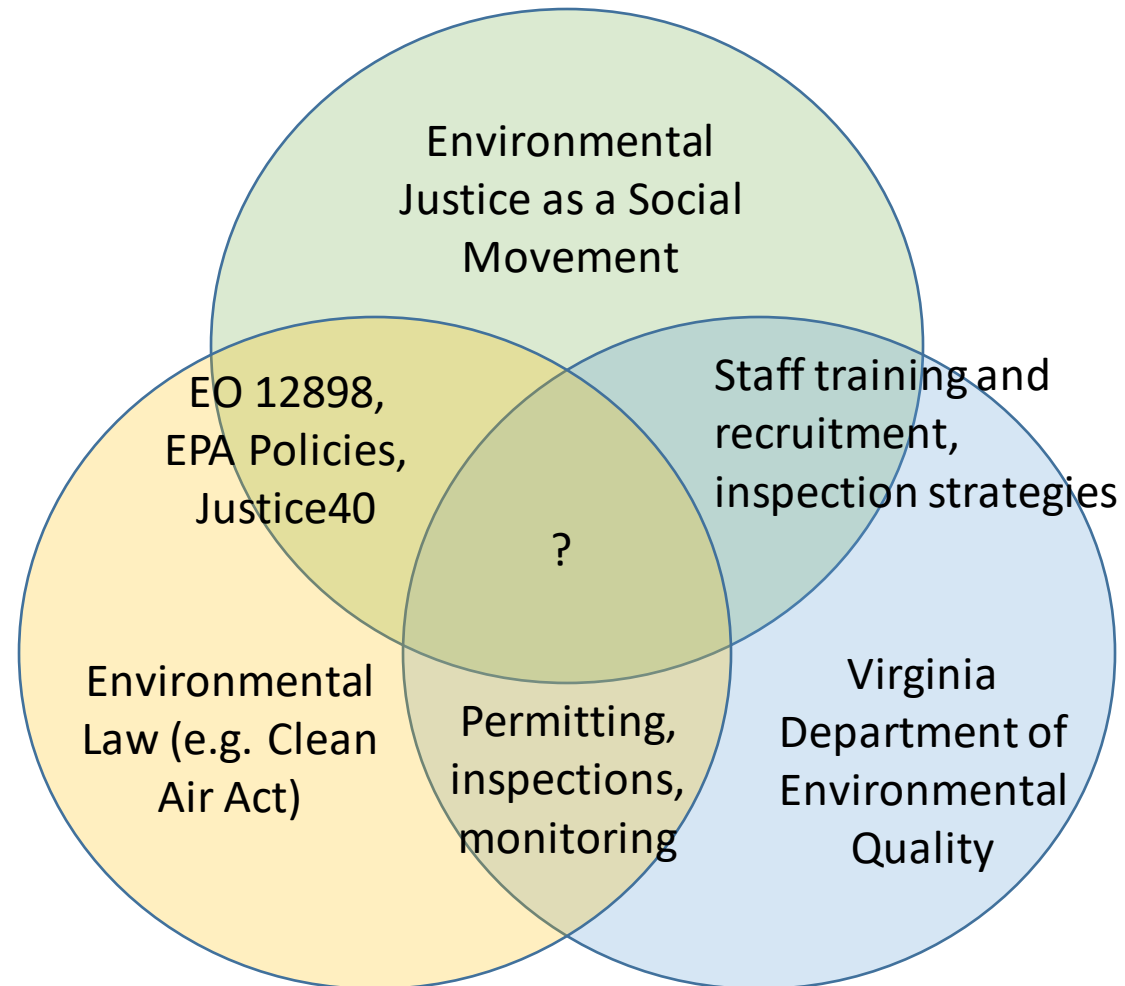
Mission of DEQ's Environmental Justice Office

- To ensure the fair treatment and meaningful involvement of all people into the **development, implementation, and enforcement** of **environmental laws, regulations and policies across all DEQ programs**
 - With whom are we communicating?
 - Those most affected
 - What questions/concerns does the affected community have?
 - Process, health, truck traffic, jobs
 - When can communities provide input into laws, regulations, policies, and permits?
 - Which permits are involved? When can the public provide comments?

Mission of DEQ's Environmental Justice Office

- Where are other permitted facilities that may affect a community?
 - Are other sources of pollution nearby?
- How are affected communities engaged into these processes?
 - Community meetings, mail, flyers, etc.
- How can information be easier to understand for the general public?
 - Communicating information several ways, languages

Intersections of Environmental Justice, Environmental Law, and DEQ



Virginia Environmental Justice Act



- Two Environmental Justice bills passed into law effective July 1, 2020
 - Article 12. Virginia Environmental Justice Act § 2.2-235
“It is the policy of the Commonwealth to promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities.”
 - Article 36. Virginia Council on Environmental Justice § 2.2-2699.9
“The Virginia Council on Environmental Justice is established as an advisory council, within the meaning of § 2.2-2100, in the executive branch of state government. The purpose of the Council is to advise the Governor and provide recommendations that maintain a foundation of environmental justice principles intended to protect vulnerable communities from disproportionate impacts of pollution.”

The Department of Environmental Quality and the Virginia Environmental Justice Act

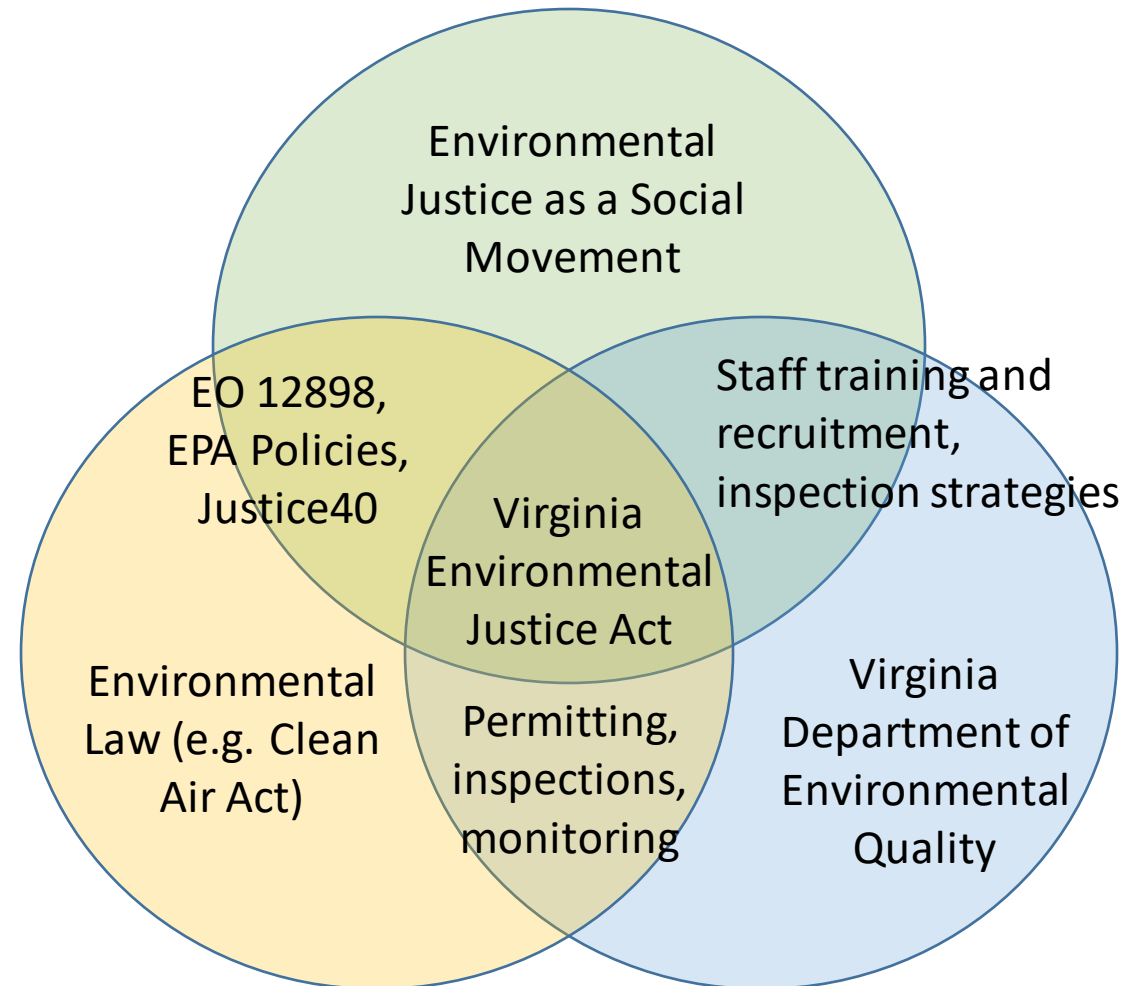
Added to the DEQ's statement of policy in the Virginia Code:

“To further environmental justice and enhance public participation in the regulatory and permitting processes.”

“To ensure the fair and meaningful involvement of all people regardless of race, color, national origin, faith, disability, or income with respect to the administration of environmental laws, regulations, and policies.”

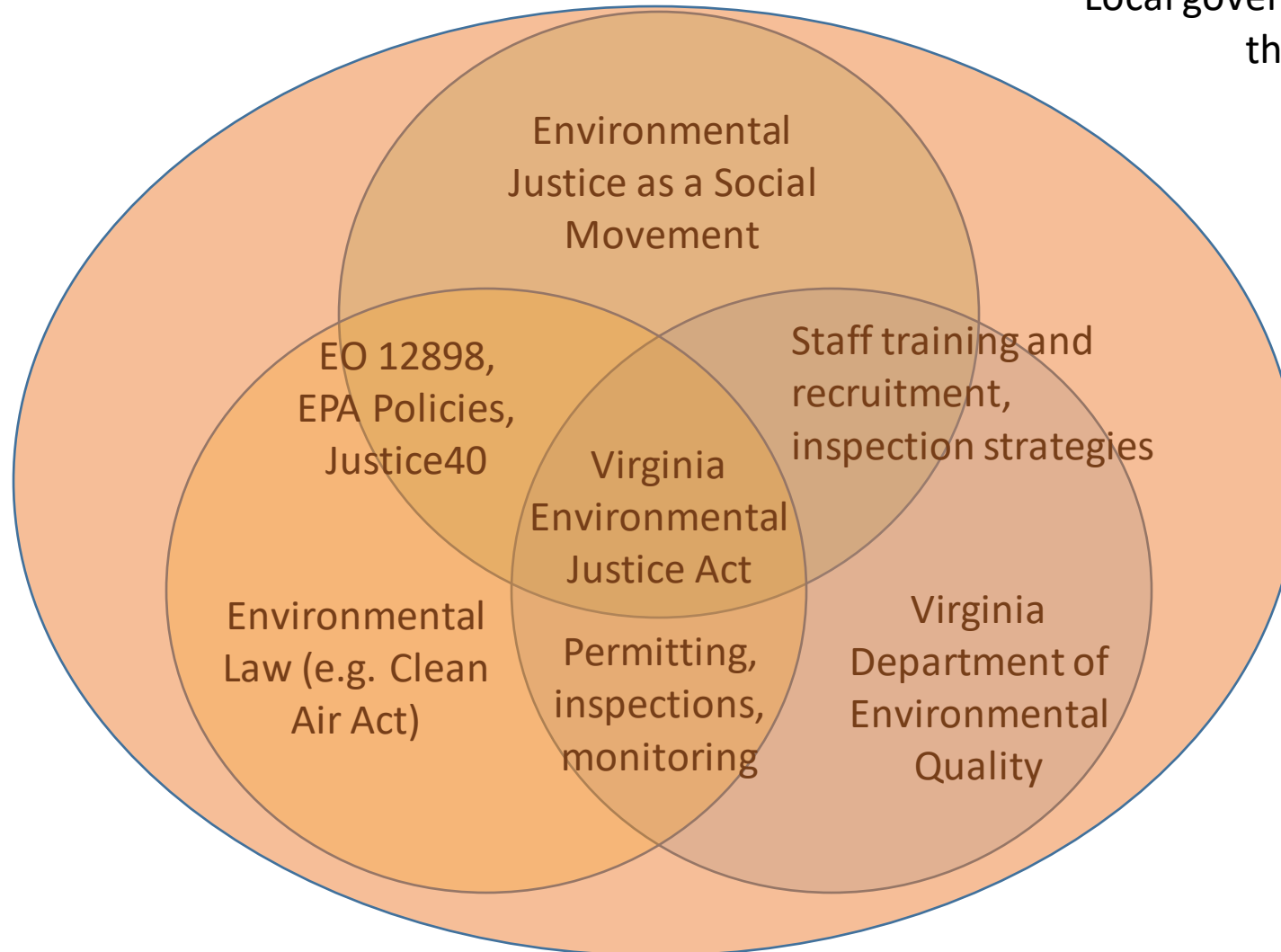


Intersections of Environmental Justice, Environmental Law, and DEQ



Intersections of Environmental Justice, Environmental Law, and DEQ

Local government has its part in all of these intersections



Moving Environmental Justice Forward at DEQ

Environmental Justice Study

- Until recently, environmental justice was not part of the regulatory discourse nor part of the permitting process
- In 2019, DEQ hired a consultant (SKEO) to chart a path forward



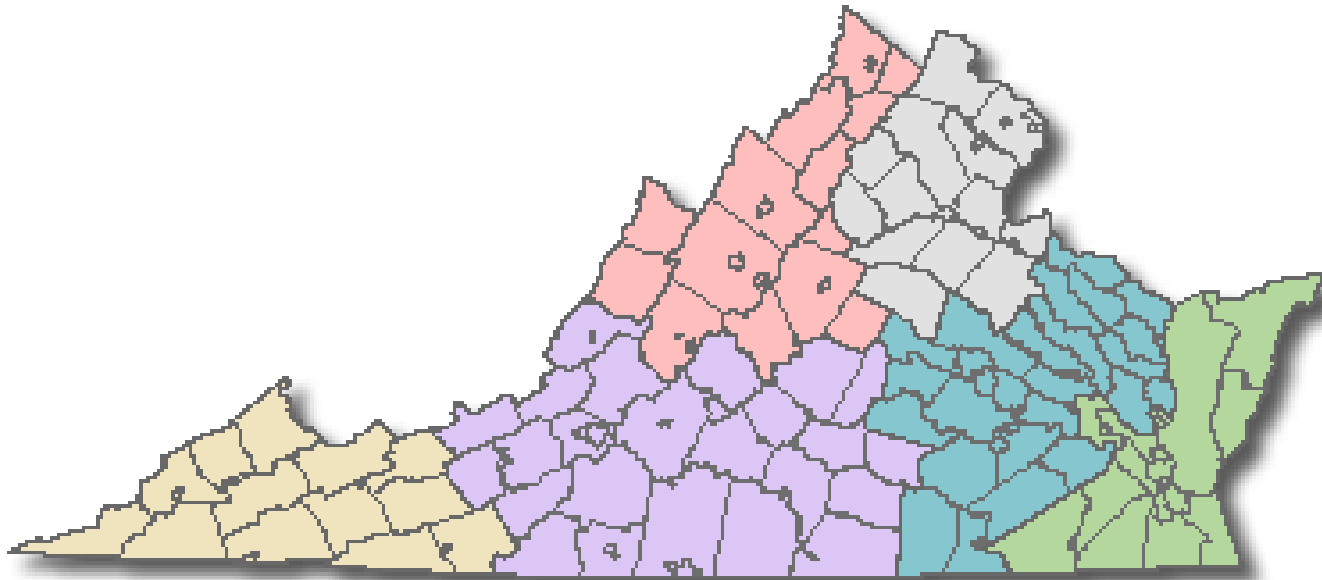
- **Purpose:** To provide independent recommendations to DEQ on how to incorporate environmental justice principles into DEQ strategic planning and a phased program implementation.

Nine Recommendations Categories from SKEO Report



- Authority
- Leadership
- Staff Capacity
- Guidance & Tools
- Accessible Information
- Relationship Building
- Community Engagement
- EJ Community Capacity
- Local Government Coordination

Operational Commitment to EJ Study Recommendations



- Office of Environmental Justice
 - Office of Environmental Justice Program Manager
 - Vacant, Currently Seeking
 - Four regional coordinators:
 - Chad Martin (Blue Ridge +)
 - Danielle Simms (Piedmont)
 - Grace Holmes (Tidewater)
 - Gwendolin McCrea (Northern)

What Environmental Justice Coordinators will do (a partial list)

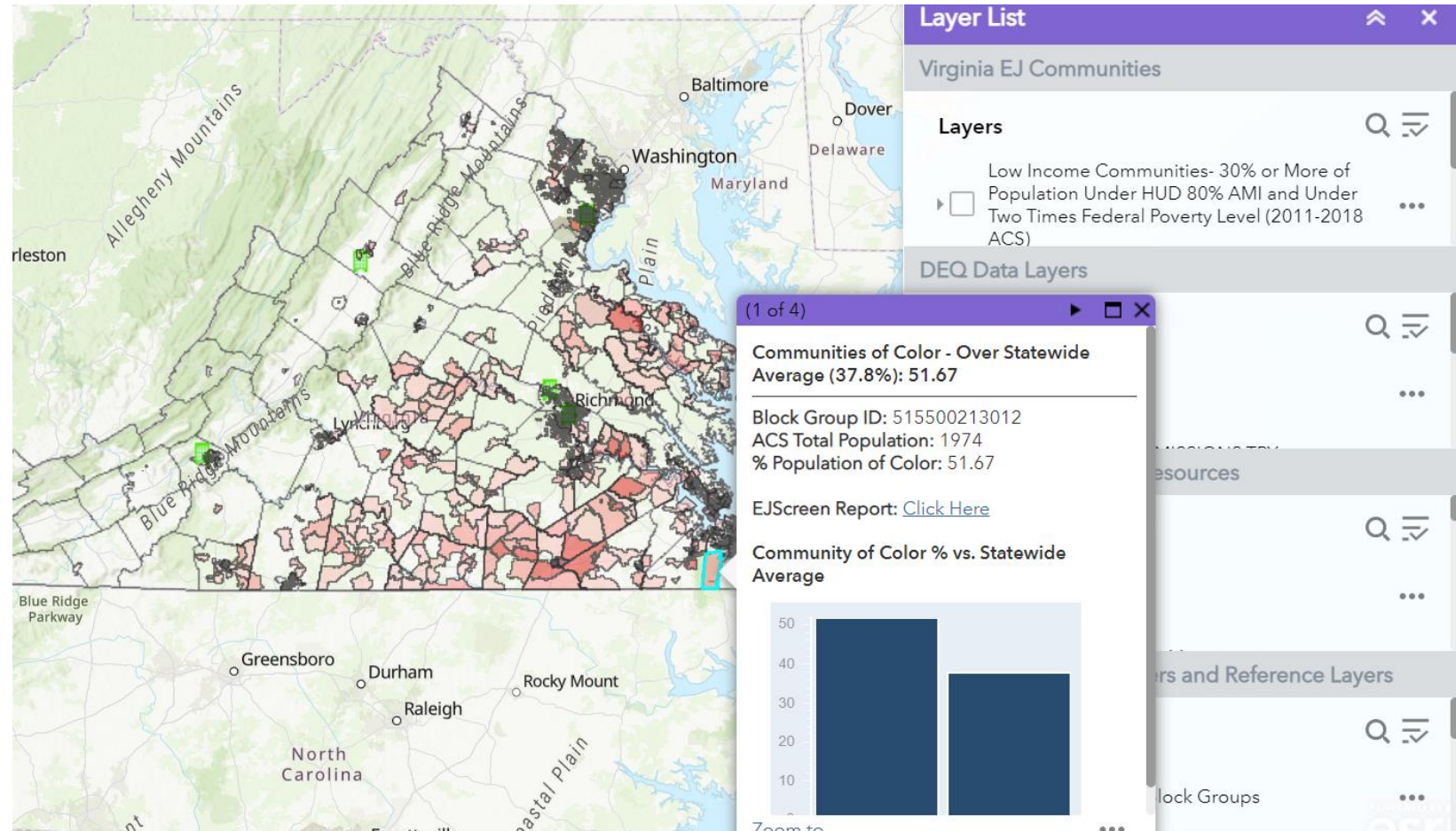
- Identify environmental justice and frontline communities that may be impacted by agency decisions (past, present, future)
- Reach out to communities to build relationships, provide education, support capacity-building
- Provide opportunities for engagement and participation in the decision-making process
- Work with community members, community organizations, local governments, and other stakeholders to address issues and concerns related to DEQ actions
- Liaise with agency staff and communities to facilitate productive transfers of information

Additional Projects and Objectives

- Enhancing environmental justice education: EJ Academy
- Development of a Virginia-specific EJ GIS Screening Tool
 - VAEJScreen+
- Fostering partnerships with localities and Planning District Commissions
- Further funding for EJ programs, projects, and positions
- Expanding environmental justice partnerships
- Incorporating environmental justice into all DEQ processes
- Special community projects such as the Tidewater Air Monitoring and Evaluation (TAME)

Virginia EJScreen+

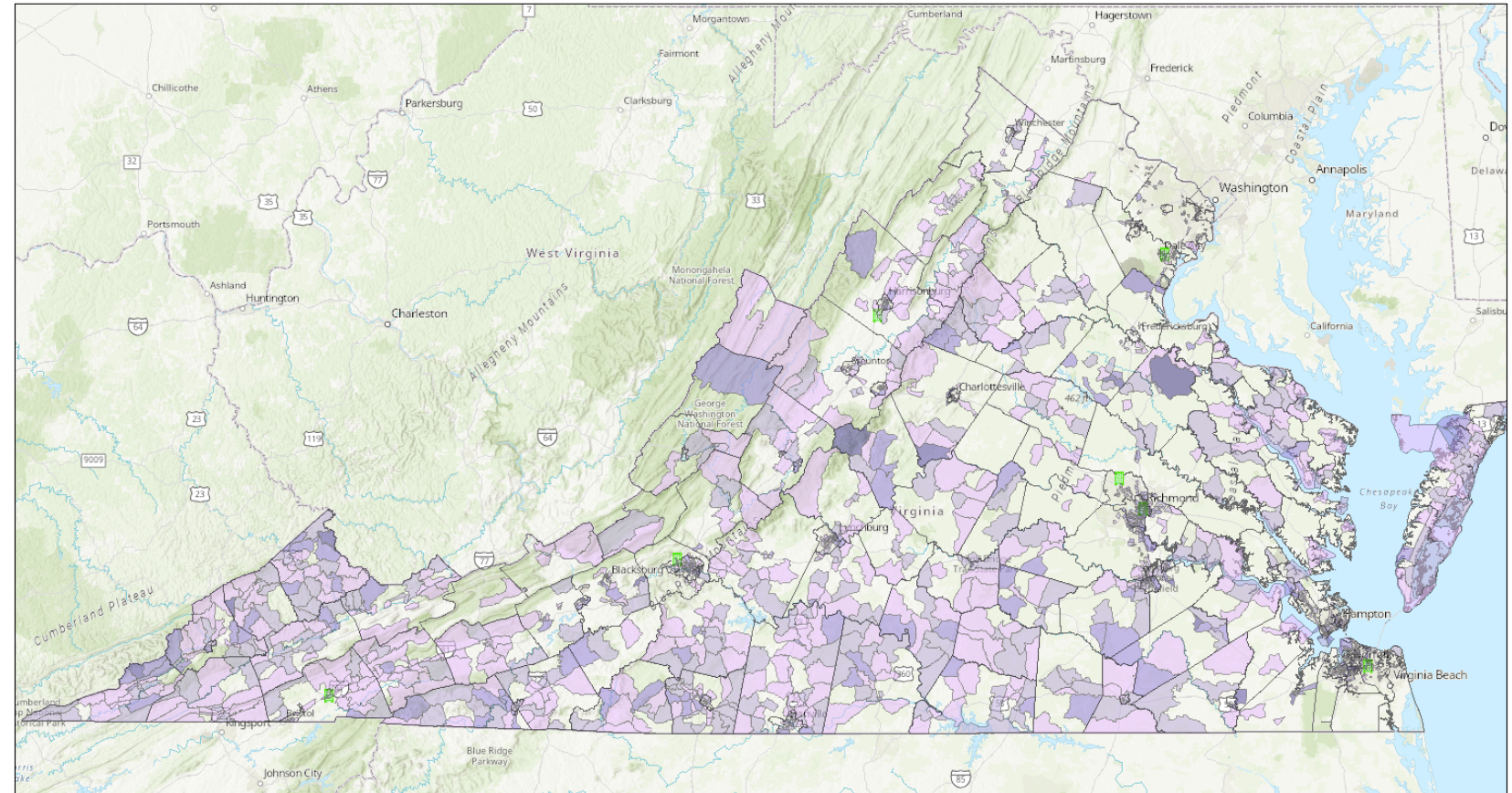
- [Virginia EJScreen+ Mapping Tool](#)
- Virginia EJScreen+ is public facing
- Data is currently displayed by census block group
- Two EJ Indicators



Low Income Communities

- Low income in this context means that over 30% or more of the population in a census block group are under HUD 80% AMI and under two times federal poverty level.
- Census block group

VA EJScreen+ Low Income EJ Indicator



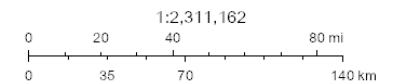
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Low Income Communities- 30% or More of Population Under HUD 80% AMI and Under Two Times Federal Poverty Level (2011-2018 ACS)

- 0.3 – 0.467
- > 0.467 – 0.61
- > 0.61 – 0.77
- > 0.77 – 1

Virginia County Boundaries

DEQ Offices (2020)



Virginia Department of Environmental Quality, VGIN, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, U.S. Environmental Protection Agency, Headquarters, Esri, USGS

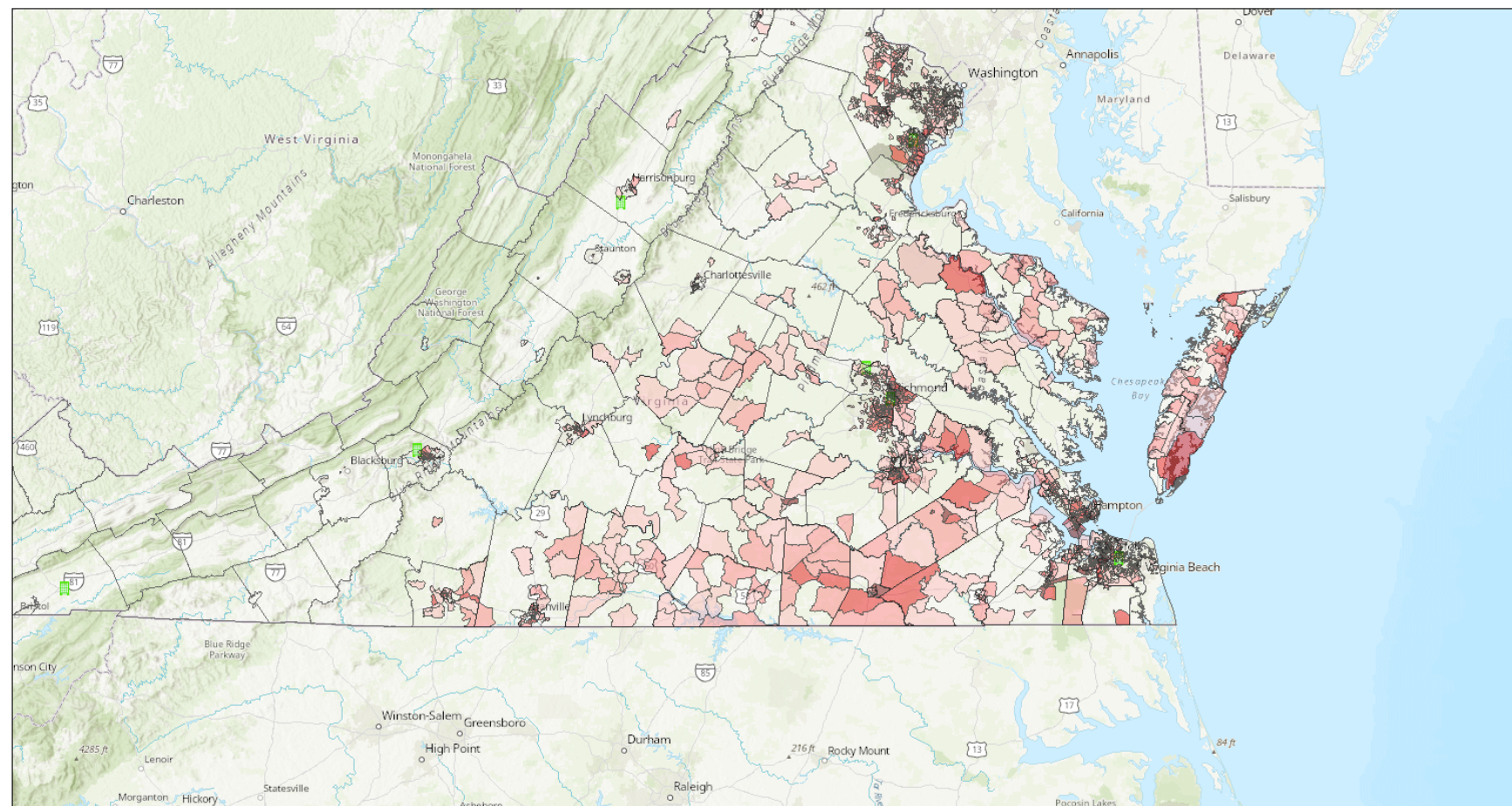
Department of Environmental Quality
Esri, USGS | VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS | U.S. Environmental Protection Agency, Headquarters | Virginia Department of Environmental Quality | Oak Ridge National Laboratory (ORNL), National Geospatial-Intelligence Agency (NGA) Homeland Security Infrastructure

Communities of Color

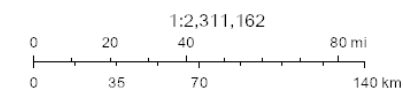
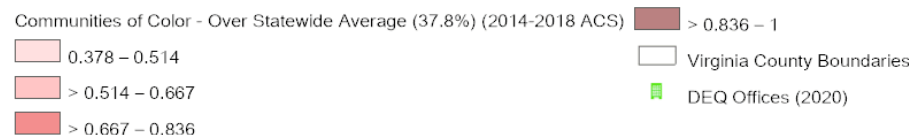
- Community of color in this context means a population made up of individuals who identify as belonging to one or more of the following groups: Black, African American, Asian, Pacific Islander, Native American, other non-white race, mixed race, Hispanic, Latino, or linguistically isolated over the statewide average of 37.8%

- “geographical area”

VA EJScreen+ Web Map Communities of Color EJ Indicator



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Virginia Department of Environmental Quality, VGH, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, U.S. Environmental Protection Agency, Headquarters, Esri, USGS

Connect with your Regional EJ Coordinator!

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Southwest)**

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Questions?

Thank You!