Virginia Solar Energy Development and Energy Storage Authority

2023 Annual Report

Virginia Solar Energy Development and Energy Storage Authority
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COMMONWEALTH OF VIRGINIA

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October 26, 2023

Governor Glenn Youngkin
Delegate Barry D. Knight, Chair, House Committee on Appropriations
Delegate Kathy J. Byron, Chair, House Committee on Commerce and Energy
Senator Richard L. Saslaw, Chair, Senate Committee on Commerce and Labor
Senators Janet D. Howell, George L. Barker, Co-Chairs, Senate Committee on Finance and Appropriations

Dear Lawmakers,

On behalf of the Virginia Solar Energy Development and Energy Storage Authority, I am happy to present its 2023 Annual Report. I invite your thoughtful consideration of this report as it is fundamentally different from those the Authority has developed in years past. For the first time since the Authority's creation, members diligently worked to formulate concrete, concise, and actionable recommendations that the General Assembly and Administration may implement to swiftly support the Solar Energy and Energy Storage development across our Commonwealth. Renewables like solar energy are more cost competitive than ever before, but legal and regulatory hurdles at the state and local level have never been higher. Virginians do not stand to benefit from red tape and unnecessary barriers to develop clean energy.

The Commonwealth's 2022 Energy Plan rightly acknowledges the bright future of solar energy if Virginia more fully welcomes it into its all-of-the-above energy strategy: *"Solar also offers an opportunity for Virginia to become a leader. On a levelized basis, solar energy is among the cheapest forms of energy available."* Virginia can lead the nation in solar energy development by recognizing the cost savings that solar can bring, harnessing the economic growth that clean energy investments create, and encouraging the onshoring of solar and storage technology supply chains.

Our members are keenly aware that the Authority's enabling legislation is set to sunset in 2025. General Assembly leadership and the Governor have appointed a group of talented minds and business leaders to the Authority, so please utilize the Authority on any matters you see fit. To the extent that the Authority can be helpful to the Commonwealth and its policymakers, I know members would enjoy continuing this important work on behalf of the Commonwealth and its fastest growing energy sector.

Yours in service,

Skyler Zunk
Chair, Virginia Solar Energy Development
and Energy Storage Authority

2023 Annual Report of the Solar Energy Development and Energy Storage Authority

A. OVERVIEW OF THE AUTHORITY AND THEIR ACTIVITIES

Update on Authority Activities

The Authority held four meetings since the 2022 Annual Report. During these meetings, industry leaders and experts presented information on issues impeding solar and storage development and deployment in the Commonwealth. Authority members then developed recommendations to the Governor and General Assembly addressing these barriers.

Authority members heard presentations covering local permitting issues, interconnection challenges, and bias against an American-made thin-film solar product. They also heard presentations and engaged in discussions on grid-enhancing technologies (GETS), the state of energy storage development in Virginia, and an analysis of Virginia's permitting model compared to neighboring states' models. The industry expert's assessments were shared with the Authority, along with tangible recommendations for Virginia's increased competitiveness in the solar and storage industries.

Local Permitting for Solar Projects

Francis Hodsoll, CEO, SolUnesco; Drew Price, President & Chief Development Officer, Hexagon Energy; and Tyson Utt, Co-Founder and Manager for Commonwealth Energy Partners Solar, each addressed an issue of growing concern—the difficulty solar developers face receiving permitting approval in a growing number of localities. Solar permitting is becoming one of the most controversial issues local decision-makers face. Many counties are concerned with the amount of rural land being taken up by solar development. Presenters discussed the effects of misinformation on the local permitting process and how elected leaders encounter pressure from citizens over "not-in-my-backyard" opposition even when engineering, visual screening, and environmental concerns are satisfied. It was noted that the data assessing project proposal success and failure rates do not account for many projects that fail before permit hearings take place because developers drop proposals before they are made public if local policies appear hostile to solar or storage development.

Localities pursue different policy mechanisms to limit, hinder, or ban solar and energy storage projects. For example, one Virginia county passed a solar ordinance that requires 1,000-foot project setbacks from roads and property lines—a requirement not easily met on any land with grid infrastructure suitable for solar development.

After considering and denying the majority of proposed solar developments, another Virginia county repealed its solar ordinance entirely, which halted the application and consideration of projects in the county.

Another county adopted a 300-acre aggregate cap[1] to ban solar projects above what was already permitted.

Interconnection Issues

Presentations were given, followed by subsequent discussion, on two separate interconnection issues impacting solar deployment, one related to midsized net energy metering (NEM) projects interconnected behind the customer's meter, and the other for larger systems interconnected in front of the meter.

The first interconnection discussion was led by Tony Smith, President of Secure Futures, representing the Virginia Distributed Solar Alliance (VA DSA). The discussion revolved around interconnection parameters on midsized NEM projects imposed by Dominion Energy beginning in December 2022. The VA DSA asserted these parameters were significantly driving up the cost for behind-the-meter solar energy systems between 250 kW and one megawatt – a size range primarily aimed at schools and other local government buildings. These included requirements that the developer bear the costs to install Direct Transfer Trip controls at the source substation, along with "dark fiber" from the solar energy system back to the substation at a cost of $150,000 to $200,000 per mile. These upgrades, where required, can drive up the cost of solar installed in schools and similar-sized facilities by more than 40%, resulting in many projects being downsized or put on hold indefinitely.

Dominion says the requirements are needed for grid safety and reliability.

In July, SCC Hearing Examiner Mary Beth Adams, responding to a Petition filed by the VA DSA, recommended that Dominion's interconnection requirements be suspended until new regulations are finalized. She stated that the rules go beyond what is permitted by state law and regulations on interconnection. Furthermore, the continued implementation of Dominion's rules creates barriers to interconnection which Virginia's interconnection statute is intended to prevent.

While hearing examiners can provide recommendations for the SCC, their decisions are not binding and must be reviewed by the Commission, which then issues a final order.[2]

On August 30, 2023, the VA SCC issued its Final Order on the proceeding. Based on the findings and recommendations in the Hearing Examiner's Report, the Commission issued an injunction suspending the imposition of Dominion's Interconnection Parameters on Midsized NEM projects and suspending the requirement for Small Generator Interconnection Agreements for Midsized NEM projects at least until the Commission

[1] https://www.pagecounty.virginia.gov/AgendaCenter/ViewFile/Agenda/_06282022-747

[2] https://www.virginiamercury.com/2023/08/16/utility-regulator-recommends-suspension-of-dominions-rules-for-connecting-new-solar-to-grid/

resolves the interconnection-related issues raised in Case Nos. PUR-2022-00073 and PUR-2023-00069 and has ruled definitively on such matters. In the Final Order, the Commission stated it "…has neither disregarded nor taken lightly Dominion's claims regarding safety and reliability." The Commission added that Dominion should continue to take actions necessary to maintain its system's immediate safety and reliability, which may include seeking specific Authority from the Commission.[3]

The second interconnection discussion was led by Nitzan Goldberger, Director of Policy and Business Development at New Leaf Energy, Inc., representing the Coalition for Community Solar Access. The discussion involved not only Dominion Energy's interconnection requirements but also the length of time it is taking Dominion Energy to review interconnection studies for community solar projects 3 megawatts (MW) and below.

Interconnection studies are currently taking 12-16 months for each individual project, and there are currently around 3,800 MW of interconnection study requests in Dominion's distribution-level queue. Once the solar developer finally receives the outcome of their interconnection study, they may face millions of dollars in distribution system upgrade costs.

Katharine Bond with Dominion Energy, who is a member of the Authority, said Dominion's interconnection procedures for distributed solar systems as large as 3 MW are based on safety and that if they get it wrong, the consequences from a safety perspective are very high. Ms. Bond stated that Dominion's requirements are not a matter of convenience but a potential matter of life and death.

She discussed the challenges of interconnection at substations that were not designed for two-way power flow and indicated the reasons they evaluate interconnection requests the way they do – one at a time in the order they are received, with subsequent requests assessed based on the assumption the previous projects were installed – is to calculate the overall impact to the grid.

First Solar and Cadmium Telluride Solar Panels

Karmen Blanco-Hartfield, Director of Government Affairs, and Karen Drozdiak, Director of Global Environmental, Social, Governance and Sustainability at First Solar, discussed First Solar's American-made solar panels and a growing bias against them.

Unlike most of the solar panels installed in Virginia, which are made from crystalline silicon predominantly manufactured in China, First Solar uses a "thin film" semiconductor made up of cadmium telluride (CdTe).

CdTe-based PV is considered a thin-film technology because the active layers are just a few microns thick, or about a tenth the diameter of a human hair.

[3] https://www.scc.virginia.gov/docketsearch/DOCS/7%25bc01!.PDF

CdTe solar cells are the second most common photovoltaic (PV) technology in the world marketplace after crystalline silicon, representing 5% of the world market. CdTe thin-film solar cells can be manufactured quickly and inexpensively, providing an alternative to conventional silicon-based technologies.

First Solar set the efficiency record for a laboratory CdTe solar cell of 22.1%. First Solar also reported its average commercial module efficiency to be approximately 18% at the end of 2020.[4]

Their presentation and subsequent discussion centered on the proven safety of CdTe panels, and on the manufacturing efficiency compared to conventional silicon solar panels, noting that of the ten largest solar manufacturers, First Solar is the only company not also manufacturing in China.

First Solar's cadmium-telluride CdTe solar technology is uniquely American and was invented in the US.

They indicated a need to dispel misinformation about the safety of their thin-film CdTe panels, as local decision-makers are using misinformation to disallow these panels in certain counties. They indicated there are already 370 MW of First Solar CdTe panels in Virginia. First Solar would like to "level the playing field" for their technology and avoid state or local policies that discriminate against CdTe due to misinformation.

Grid Enhancing Technologies

AJ Hall, with AES, a global energy company, delivered a presentation to the members on grid-enhancing technologies, or GETs.

The presentation indicated that PJM forecasts a 4%-5% annual load growth over the next 15 years, driven mainly by data centers in Virginia, which peaked at 2.7 GW in 2022 and is expected to rise to 6 GW by 2030. In addition, electric vehicles and electrification of heating and other residential and commercial loads are expected to increase significantly after 2030.

Mr. Hall discussed the growing pains in the PJM Interconnection queue. He showed that the wait time to interconnect new renewable generation to help meet the growing demand has increased to nearly five years, with average network upgrades rising from $29/kW in 2019 to $240/kW today. These issues result in only 5%-15% of new renewable generation making it through the PJM queue to actual operation versus 30% in 2012.

Mr. Hall also explained that insufficient transmission capacity is a reason for increased time and costs for new renewables. An additional 60% in transmission capacity will be required by 2030. This, however, will be difficult as new transmission takes 10 years on average to

[4] https://www.energy.gov/eere/solar/cadmium-telluride

move from conception to operation and costs upwards of $10,000 per MW/mile. Replacing and upgrading existing transmission takes two to three years and $4,000 per MW/mile.

The discussion then transitioned into how GETs, such as dynamic line rating, storage as transmission, topology optimization, and other technologies, can unlock transmission capacity, offset more expensive traditional wires investments, mitigate the impact of outages, and improve the capacity of newly added lines.

Mr. Hall offered several recommendations for the Authority's consideration:

- Encourage demonstrations of new, flexible grid-enhancing technologies.
  - The IIJA has increased federal funding opportunities (e.g., the DOE Grid Resilience and Innovation Partnerships (GRIP) Program).
- Require utilities to consider GETs in the transmission and IRP planning processes and to provide justification if they are not used, as the use of GETs will:
  - Help deliver the capacity needed for data center growth at speed and faster than traditional transmission extensions and upgrades can be made.
  - Allow faster interconnection of renewable generation with right-sized network upgrades.
  - Ensure affordability for customers throughout the energy transition by making more efficient use of our grid capacity.
- Advise the SCC to support regulatory incentives so GETs can compete equally with traditional upgrades.

An Energy Storage Developer's Perspective on Working in Virginia

Chris Meyer, Project Developer for East Point Energy, gave the perspective of energy storage in Virginia.

Mr. Meyer also gave an overview of East Point Energy, now a subsidiary of Equinor, an international energy company headquartered in Norway. They currently have 8 MW of operational storage in Virginia, with two more projects for Dominion Energy pending.

He noted that the limited number of storage projects in Virginia are limited to locations in the state's central, south-central and southwest regions, but very little in northern Virginia, where the significant load growth is centered. Virginia's systems are also smaller than in some other states, being in the range of 2-12 MW systems versus systems of 100 MW and larger in states like Texas and California.

He discussed several Virginia initiatives that are supportive of storage development including the VCEA targets for storage; distribution interconnection reform started by the

SCC; and state legislation including the Permit by Rule which, in his view, simplifies state permitting for projects below 150 MW, and state legislation creating the revenue share option for localities.

Mr. Meyer indicated they have had local permitting successes in some areas but failures in others. He noted positive feedback for siting projects in industrial areas but less positive feedback in residential areas, even with significant setbacks from homes.

He noted that the PJM Interconnection queue backlogs are significantly delaying projects, as is competition for batteries and long lead times for equipment necessary for utilities to interconnect projects, such as transformers.

He indicated several things that can help move project development along, including state-level permitting guidance to allow more projects by-right with good regulation to reduce the amount of discretionary permitting in counties, supporting SCC interconnection reform to remove friction for future projects to come online in terms of time to study, upgrade costs, etc., and education for localities around Siting Agreements as there seems to be a lot of confusion around these.

Mr. Meyer was asked whether any counties used Revenue Share ordinance agreements enabled through Virginia code § 58.1-2636. He indicated that none of East Point's projects were, and he didn't know if any of the counties offered the Revenue Share option.

Aaron Berryhill with Virginia Energy said that several localities have passed a revenue share ordinance specifically for energy storage, including Accomack County and Rockingham County. Several counties have passed revenue share ordinances for solar combined with storage, even if they only have solar projects to date.

Regarding states where East Point currently has projects, Mr. Meyer was asked how Virginia compares in bringing storage projects online. He said East Point is looking at several projects in New England, where construction permitting is nearly impossible, and Texas, where there is no discretionary permitting. He thought Virginia was in the middle because of the state-level policies in place and the relative ease of local permitting compared to other states.

A State Comparison of Siting of Large-Scale Solar Energy Projects

A Virginia Department of Energy representative gave an overview of how several states address utility-scale solar facility siting.

He indicated that each state handles the siting of solar facilities differently, with some approval processes being at the local level, some at the state level, and some at both levels. Virginia has a distinctive 'dual' permitting process where state and local governments must approve all large-scale solar facilities. Local governments, however, have significant

authority over siting in Virginia, and they each have very different rules, processes, and restrictions.

By comparison, in the neighboring state of Maryland, the state handles siting approval for all projects above 2 MW through the CPCN process, with input from the locality. In North Carolina, on the other hand, siting control largely rests with the locality with little state oversight.

The representative discussed recent legislation in states nationwide related to solar siting. and He specifically addressed Virginia House Bill 206, which calls for DEQ to amend their Permit by Rule to require mitigation of "significant adverse impacts" from solar facilities disturbing ten or more acres of prime agricultural soils or more than 50 acres of contiguous forest land. Other states, including Illinois, Indiana, Maryland, and North Carolina, have also seen solar siting legislation passed in recent years.

B. UPDATE ON SOLAR AND ENERGY STORAGE DEPLOYMENTS IN VIRGINIA

The Authority continues to track solar energy and energy storage deployments in Virginia.

Solar Deployment

According to the Solar Energy Industries Association (SEIA), Virginia's total installed solar capacity is 4,313 MW through Q1 2023, ranking the Commonwealth 10th in the nation – down from 9th in 2022. This represents 5.65% of Virginia's electricity load which is enough solar to power 497,911 homes. SEIA projects a growth of an additional 6,387 MW over the next five years.[5]

As of this writing, there are 208 companies in Virginia, including 29 manufacturers, 91 installers/developers, and 88 listed as "other."[6] These companies employ roughly 4,753 individuals.

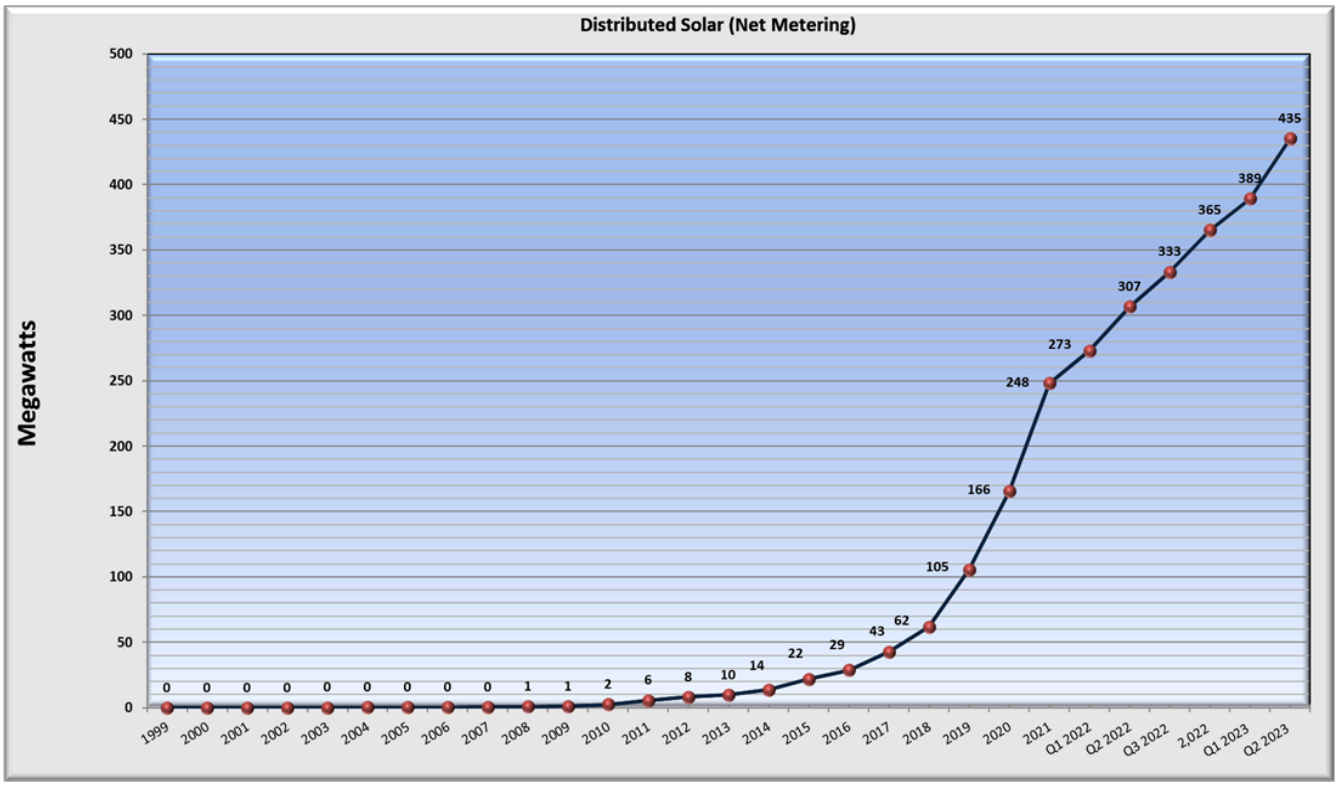
The value of the Commonwealth's solar market is currently estimated to be $4.9 billion, with $787 million invested in 2022 alone.

While utility-scale solar represents the majority of total installed capacity, distributed solar creates the most actual long-term jobs.

Distributed solar interconnected behind-the-meter via net energy metering is enabled under Va. Code Section 56-594 and regulated under 20VAC5-315-10—the State Corporation Commission's Regulations Governing Net Energy Metering.

[5] Virginia State Solar Spotlight: https://www.seia.org/sites/default/files/2023-07/Virginia.pdf
[6] SEIA, National Solar Database: https://www.seia.org/research-resources/national-solar-database

Over the past year, distributed (net metered) solar installations increased from 33,344 installations totaling 298.8 MW in Q2 of 2022 to 47,004 installations totaling 435 MW in Q2 2023. The chart below illustrates the steady growth in net metering facilities in recent years in Virginia.



Energy Storage

At present 2,594 MW of commercial-scale energy storage is either complete, under construction, or in the engineering and procurement stage listed in the PJM New Services Queue. This capacity does not include storage systems connecting at distribution-level voltages that are not required to go through the PJM approval process. To date, it has been challenging to assess the total capacity of commercial-scale energy storage systems and impossible to assess behind-the-meter distributed energy storage systems at homes and businesses. Authority staff continues to look for methods to acquire this data.

C. Recommendations

Virginians want reliable, safe, affordable, and clean energy. Still, localities' barriers to solar and storage development and interconnection barriers at both the transmission and distribution levels make that transition challenging. If enacted, these recommendations will help Virginians access preferred clean energy and create the economic and health benefits associated with transitioning to a clean energy economy in the Commonwealth without

compromising safe, reliable and affordable energy delivery in the Commonwealth.

- **The Authority recommends the following for promoting the development of solar and energy storage at the local government level:**
  - That the Governor requests an official advisory opinion per Virginia code §2.2-505 to determine the legality of restrictions and moratoria on solar and energy storage development. AG Opinion No. 12-102, issued January 11, 2013, found that only reasonable zoning measures could be placed on oil and gas exploration and that "a local governing body cannot ban altogether" the practice. The Attorney General should do the following as it relates to solar and energy storage development:
    - Assess the legality of a local ordinance that results in a *de facto* moratorium on solar and energy storage development.
    - Assess the legality of acreage caps and density restrictions that prohibit solar development beyond a certain threshold.
    - Assess the legality of a locality repealing or refusing to institute an ordinance to allow consideration of solar or energy storage developments.
  - That the Governor instructs the Virginia Department of Energy Director to develop and promulgate ordinance recommendations for localities to govern the siting and development of solar and energy storage facilities.
  - That the Governor and the General Assembly support and fund the addition of an Energy Storage Program Manager within the Virginia Department of Energy who will be responsible for coordinating policy and facilitating the development of energy storage assets across Virginia.
  - That Virginia Energy creates educational resources for localities on permitting, regulations, and safety best practices for solar and storage development. This can be accomplished partly if Virginia's grant application to the US Department of Energy's "R-STEP" program is successful.[7] The Authority, Administration, and General Assembly should support this effort.
- **The Authority recommends the following for promoting the development of solar and energy storage at the transmission level:**
  - Policymakers should consider solutions to current PJM Interconnection queue issues

[7] https://www.energy.gov/eere/renewable-energy-siting-through-technical-engagement-and-planning

that are delaying projects trying to connect to the grid at the transmission level.

- The legislature should direct Virginia utilities to use existing grid capacity creatively, considering, for example:
  - Replacing near-retirement fossil assets with solar and energy storage.
  - Using Grid Enhancing Technologies (GETs – including storage as transmission, dynamic line rating, power flow control and topology optimization) in the transmission and IRP planning processes and justify if a GETs solution is not used.

- **The Authority recommends the following for promoting the development of solar and energy storage at the distribution level. Policymakers should**:
  - Advance policies to streamline the distribution interconnect process and address unnecessarily burdensome rules that make distribution-level projects cost-prohibitive.

The Authority believes that adopting these recommendations is critical to enabling a just, clean energy transition for Virginians and increasing the desirability of Virginia as a preferred location for economic development.

D. Conclusion

The Virginia Solar Energy Development and Energy Storage Authority will continue to make a concerted effort in 2024 to schedule pertinent meetings and to invite industry and policy experts to help inform their activities and actions in the future. The Authority stands ready to engage with the Administration and General Assembly leaders and welcomes opportunities to participate in policy discussions impacting solar and storage development.

The Authority will also continue to track solar energy and energy storage deployment and will focus on identifying methods to improve utility-scale and distributed energy resources. As part of this effort, the Authority will seek to solicit input from localities enacting policies to govern the siting and operation of solar and energy storage assets within their jurisdiction.

APPENDIX A

Enabling Legislation

Enabling Legislation (Amended 2017)

§ 45.2-1902. (Effective October 1, 2021; Expires July 1, 2025) Virginia Solar Energy Development and Energy Storage Authority established; purpose.

The Virginia Solar Energy Development Authority is continued as the Virginia Solar Energy Development and Energy Storage Authority. The Authority constitutes a political subdivision of the Commonwealth. The Authority is established for the purposes of (i) facilitating, coordinating, and supporting the development, either by the Authority or by other qualified entities, of the solar energy and energy storage industries and solar energy and energy storage projects by developing programs that increase the availability of financing for solar energy projects and energy storage projects; (ii) facilitating the increase of solar energy generation systems and energy storage projects on public and private sector facilities in the Commonwealth; (iii) promoting the growth of the Commonwealth's solar and energy storage industries; (iv) providing a hub for collaboration between entities, both public and private, to partner on solar energy projects and energy storage projects; and (v) positioning the Commonwealth as a leader in research, development, commercialization, manufacturing, and deployment of energy storage technology. The Authority may also consult with research institutions, businesses, nonprofit organizations, and stakeholders as the Authority deems appropriate. The Authority has only those powers enumerated in this article.

§ 45.2-1903. (Effective October 1, 2021; Expires July 1, 2025) Membership; terms; vacancies; expenses.

A. The Authority shall have a total membership of 15 non-legislative citizen members appointed as follows: eight members to be appointed by the Governor; four members to be appointed by the Speaker of the House of Delegates; and three members to be appointed by the Senate Committee on Rules. All members of the Authority shall be citizens of the Commonwealth. Members may include representatives of solar businesses, solar customers, renewable energy financiers, state and local government solar customers, institutions of higher education who have expertise in energy technology, and solar research academics.

B. Except as otherwise provided in this article, all appointments shall be for terms of four years each. No member shall be eligible to serve more than two successive four-year terms. After expiration of an initial term of three years or less, two additional four-year terms may be served by such member if appointed thereto. Appointments to fill vacancies, other than by expiration of a term, shall be made for the unexpired terms. Any appointment to fill a vacancy shall be made in the same manner as the original appointment. The remainder of any term to which a

member is appointed to fill a vacancy shall not constitute a term in determining the member's eligibility for reappointment.

C. The Authority shall appoint from its membership a chairman and a vice-chairman, each of whom shall serve in such capacity at the pleasure of the Authority. The chairman, or in his absence the vice-chairman, shall preside at each meeting of the Authority. The meetings of the Authority shall be held on the call of the chairman or whenever a majority of the members so request. A majority of members of the Authority serving at any one time shall constitute a quorum for the transaction of business.

D. Members shall serve without compensation. However, all members may be reimbursed for all reasonable and necessary expenses incurred in the performance of their duties as provided in §§ 2.2-2813 and 2.2-2825. Such expenses shall be paid from funds appropriated to the Authority by the General Assembly.

E. Members of the Authority shall be subject to the standards of conduct set forth in the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq.) and may be removed from office for misfeasance, malfeasance, nonfeasance, neglect of duty, or misconduct in the manner set forth therein.

F. Except as otherwise provided in this article, members of the Authority shall be subject to the provisions of the Virginia Freedom of Information Act (§ 2.2-3700 et seq.).

§ 45.2-1904. (Effective October 1, 2021; Expires July 1, 2025) Partnerships.

A. The Authority may establish public-private partnerships with entities pursuant to the Public-Private Education Facilities and Infrastructure Act of 2002 (§ 56-575.1 et seq.) to increase the number of solar energy generation systems on or located adjacent to public and private facilities in the Commonwealth. Any partnership established pursuant to this section shall stipulate that the Authority and the developers shall share the costs of the installation and operation of solar energy facilities and equipment.

B. The Authority may provide a central hub for appropriate entities, both public and private, to enter into partnerships that result in solar energy generation projects being developed in the Commonwealth. The Authority may act as a good faith broker in such matters to facilitate appropriate partnerships, including public-private partnerships.

§ 45.2-1905. (Effective October 1, 2021; Expires July 1, 2025) Federal loan guarantees.

A. The Authority, on behalf of the Commonwealth, may apply to the US Department of Energy for federal loan guarantees authorized or made available pursuant to Title XVII of the federal Energy Policy Act of 2005, PL 109-58; the federal American Recovery and Reinvestment Act of

2009, PL 111-5; or other similar federal legislation to facilitate the development of solar energy projects.

B. Upon obtaining a federal loan guarantee for a solar energy project pursuant to subsection A, the Authority, subject to any restrictions imposed by federal law, may allocate or assign all or any portion thereof to a qualified third party on terms and conditions the Authority finds appropriate. Any action of the Authority relating to the allocation and assignment of such loan guarantee shall be exempt from the provisions of the Administrative Process Act (§ 2.2-4000 et seq.) pursuant to subdivision B 4 of § 2.2-4002. Any decision of the Authority pursuant to this section shall be final and not subject to review or appeal.

§ 45.2-1906. (Effective October 1, 2021; Expires July 1, 2025) Powers and duties of the Authority.

In addition to other powers and duties established under this article, the Authority has the power and duty to:

1. Adopt, use, and alter at will an official seal;

2. Make bylaws for the management and regulation of its affairs;

3. Maintain an office at any place within the Commonwealth it designates;

4. Accept, hold, and administer moneys, grants, securities, or other property transferred, given, or bequeathed to the Authority, absolutely or in trust, from any source, public or private, for the purposes for which the Authority is established;

5. Make and execute contracts and all other instruments and agreements necessary or convenient for the exercise of its powers and functions;

6. Employ, in its discretion, consultants, attorneys, architects, engineers, accountants, financial experts, investment bankers, superintendents, managers, and any other employees and agents necessary and fix their compensation to be payable from funds made available to the Authority;

7. Invest its funds as permitted by applicable law;

8. Receive and accept from any federal or private agency, foundation, corporation, association, or person grants, donations of money, or real or personal property for the benefit of the Authority, and receive and accept from the Commonwealth or any other state, from any municipality, county, or other political subdivision thereof, or from any other source, aid or contributions of either money, property, or other things of value, to be held, used, and applied for the purposes for which such grants and contributions may be made;

9. Enter into agreements with any department, agency, or instrumentality of the United States or of the Commonwealth and with lenders and enter into loans with contracting parties for the purpose of planning, regulating, and providing for the financing or assisting in the financing of any project;

10. Do any lawful act necessary or appropriate to carry out the powers granted or reasonably implied in this article;

11. Identify and take steps to mitigate existing state and regulatory or administrative barriers to the development of the solar energy and energy storage industries, including facilitating any permitting processes;

12. Enter into interstate partnerships to develop the solar energy industry, solar energy projects, and energy storage projects;

13. Collaborate with entities, including institutions of higher education, to increase the training and development of the workforce needed by the solar and energy storage industries in the Commonwealth, including industry-recognized credentials and certifications;

14. Conduct any other activities as may seem appropriate to increase solar energy generation in the Commonwealth and the associated jobs and economic development and competitiveness benefits, including assisting investor-owned utilities in the planned deployment of at least 400 megawatts of solar energy projects in the Commonwealth by 2020 through entering into agreements in its discretion in any manner provided by law for the purpose of planning and providing for the financing or assisting in the financing of the construction or purchase of such solar energy projects authorized pursuant to § 56-585.1;

15. Promote collaborative efforts among the Commonwealth's public and private institutions of higher education in research, development, and commercialization efforts related to energy storage;

16. Monitor relevant developments in energy storage technology and deployment nationally and globally and disseminate relevant information and research results; and

17. Identify and work with the Commonwealth's industries and nonprofit partners in advancing efforts related to the development and commercialization of energy storage.

§ 45.2-1907. (Effective October 1, 2021; Expires July 1, 2025) Director; staff; counsel to the Authority.

A. The Director shall serve as Director of the Authority and shall administer the affairs and business of the Authority in accordance with the provisions of this article and subject to the policies, control, and direction of the Authority. The Director may obtain non-state-funded

support to carry out any duties assigned to the Director. Funding for such support may be provided by any source, public or private, for the purposes for which the Authority is established. The Director shall maintain and is custodian of all books, documents, and papers of or filed with the Authority. The Director may cause copies to be made of all minutes and other records and documents of the Authority and may give certificates under seal of the Authority to the effect that such copies are true copies, and any person dealing with the Authority may rely on such certificates. The Director also shall perform other duties prescribed by the Authority in carrying out the purposes of this article.

B. The Department shall serve as staff to the Authority.

C. The Office of the Attorney General shall provide counsel to the Authority.

§ 45.2-1908. (Effective October 1, 2021; Expires July 1, 2025) Annual report.

On or before October 15 of each year, the Authority shall submit an annual summary of its activities and recommendations to the Governor and the Chairmen of the House Committee on Appropriations, the Senate Committee on Finance and Appropriations, the House Committee on Labor and Commerce, and the Senate Committee on Commerce and Labor.

§ 45.2-1909. (Effective October 1, 2021; Expires July 1, 2025) Confidentiality of information.

A. The Authority shall hold in confidence the personal and financial information supplied to it or maintained by it concerning the siting and development of solar energy projects and energy storage projects.

B. Nothing in this section shall prohibit the Authority, in its discretion, from releasing any information that has been transformed into a statistical or aggregate form that does not allow the identification of the person who supplied particular information.

C. Information supplied by or maintained on any person or entity applying for or receiving an allocation of any federal loan guarantee, as well as specific information relating to the amount of, or the identity of the recipient of, such distribution, shall be subject to disclosure in accordance with the Virginia Freedom of Information Act (§ 2.2-3700 et seq.).

§ 45.2-1910. (Effective October 1, 2021; Expires July 1, 2025) Declaration of public purpose; exemption from taxation.

A. The exercise of the powers granted by this article shall be in all respects for the benefit of the citizens of the Commonwealth and for the promotion of their welfare, convenience, and prosperity.

B. The Authority shall be deemed to be performing an essential governmental function in the exercise of the powers conferred upon it by this chapter, and the property of the Authority and its income and operations shall be exempt from taxation or assessments upon any property acquired or used by the Authority under the provisions of this article.

§ 45.2-1911. (Effective October 1, 2021; Expires July 1, 2025) Sunset.

The provisions of this article shall expire on July 1, 2025.

APPENDIX B

Virginia Solar Energy Development and Energy Storage Authority Members

Virginia Solar Energy Development and Energy Storage Authority Members

Member/Organization	Appointed By	Term Expires	Attended 4/28/23 Meeting?	Attended 6/23/23 Meeting?	Attended 7/26/23 Meeting	Attended 9/13/23 Meeting?
Paul Duncan MPR Associates, Inc.	Governor	6/30/25	Yes	Yes	Yes	Yes
Skyler Zunk Energy Right	Governor	6/30/26	Yes	Yes	Yes	Yes
Jo Anne Webb General Partner, Scott Timberland Co., LP	Governor	6/30/26	Yes	No	No	Yes
Rumy J. Mohta CEO, ATLAS Branding and Commercial Financing	Governor	6/30/25	Yes	Yes	No	Yes
Colleen A. Lueken, PhD Market Development Director AES	Governor	6/30/24	Yes	Yes	Yes	Yes
Michael Walsh Partner, Shearman & Sterling LLP	Governor	6/30/25	Yes	Yes	Yes	Yes
Robert Birdsey Managing Director, Green Front Energy	Governor	6/30/27	N/A	N/A	N/A	N/A
Vacant	Governor	6/30/23				
Harrison (Harry) Godfrey Executive Director Virginia Advanced Energy Economy	Speaker of the House	6/30/25	No	Yes	No	No
Gregory D. Habeeb Partner, Gentry Locke	Speaker of the House	6/30/27	Yes	Yes	Yes	Yes
Vacant	Speaker of the House	6/30/25				
Vacant	Speaker of the House	6/30/23				
Katharine Bond VP, Public Policy & Alternative Energy Strategy, Dominion Energy	Senate Committee on Rules	6/30/27	Yes	Yes	No	Yes
Michael Herbert Co-Founder/Managing Partner Delorean Power	Senate Committee on Rules	6/30/24	Yes	Yes	No	No
Vacant	Senate Committee on Rules	6/30/27				