VA-REA
THE VIRGINIA RENEWABLE ENERGY ALLIANCE

2019 Annual Report

VA-REA TRANSITIONING
IN LEADERSHIP AND RENEWABLE ENERGY
# Virginia Renewable Energy Alliance
2019 Annual Report

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Photo provided by EDP Renewables
A NOTE FROM THE EXECUTIVE DIRECTOR

The momentum to bring renewable energy to Virginia only strengthened in 2019. Solar farm permit applications multiply daily. Residential solar installations continue to expand. Commercial-scale solar is thriving. Virginia’s first permitted on-shore wind farm now has an off-taker, and work Virginia’s first off-shore wind facility has begun. A major agricultural methane project is under way – turning a renewable source of climate-intense methane to good use. And the success of inaugural Virginia Clean Energy Summit, which VA-REA initiated and led, provided an exciting demonstration of the enthusiasm in this field.

VA-REA’s LEAD conferences continued to be well-received. Highlights for me included our panel on bio-fuels at the March conference. I saw robust discussion and mutual learning as the wind and solar folks learned more about both decades-old activity and exciting innovations in this diverse area. And our June event at Old Dominion University highlighting the diverse activity at Virginia’s colleges and universities stimulated productive interaction among different schools and industry leaders.

After a lot of work with no guarantee of success, September’s Clean Energy Summit was, by all reports, a resounding success. We had a packed room as Governor Northam announced the details of Executive Order 43, and the excitement of that moment continued to energize the convention center all day long. For those of us deep in the planning of that event, it felt like we tapped into something vital. Planning is well under way for an expanded agenda of two days in 2020.

Policy advances in 2019 included HB 2547/SB 1789, which established timelines for raising net metering caps, allowing PPAs, raising residential load caps, and other changes improving access to solar energy in co-op territory. Executive Order 43 set broad goals for Virginia obtaining 30 percent of its electricity from renewable sources by 2030 and 100 percent from carbon-free sources by 2050. And it was quite a day in October when the administration presented its plan for obtaining 45 percent of state operation’s electricity from solar and wind by 2022 – after just setting the goal of 30 percent as part of EO43.

As I depart my position as Executive Director of the Alliance, I look with satisfaction and pride to the development of VA-REA over the last two years. Our membership and financial numbers continue to show positive year-over-year growth. This December the Board of Directors voted to expand the size of the Board in order to allow more of Virginia’s renewable energy leaders to participate more directly in the operations of the Alliance. I’m confident the incoming ED will be able to make the most of the extraordinary resource we’ve created.

My best,
Andrew Grigsby
ABOUT VA-REA

MISSION, VISION, & GOALS

The Virginia Renewable Energy Alliance leverages the diverse interests and market knowledge of our members to find solutions that:

- Identify and close the gaps to renewable energy development through collaboration on target initiatives;
- Research and support best industry practices;
- Serve as an authority and resource through public education; and
- Generate policy analysis.

STAFF

Andrew Grigsby
EXECUTIVE DIRECTOR

Nicole Duimstra
MEMBERSHIP COORDINATOR

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WELCOME FROM OUR NEW EXECUTIVE DIRECTOR

With so many doors opening in 2020 for Virginia’s Renewable Energy Economy, I am thrilled to be stepping into this role as the new Executive Director for the Virginia Renewable Energy Alliance! While I have been getting acclimated to my role in the Alliance, I’ve found myself reflecting on all of VA-REA and its members’ accomplishments over the years and, especially, in 2019. From the Annual Members meeting to gathering over 400 individuals at the Inaugural Virginia Clean Energy Summit, the opportunity to build upon the foundations is humbling and exciting. VA-REA and its members are in a very unique position when it comes to Virginia’s clean energy goals and commitments — leveraging the diverse and growing representation from all sectors. I’m grateful to be serving the Alliance and navigating the future of renewable energy in Virginia with VA-REA and its members.

The Alliance is composed of varied professionals who are working to take on projects that have a greater impact and promote economic stability; access to healthcare; improved education; and safer communities and environments. We have collectively overcome obstacles as renewable energy advocates in the Commonwealth over the years. This serves as a direct reflection of the resiliency of our peers, colleagues, partners, and industry as a whole. Now more than ever before, Virginians will be looking to VA-REA and its membership base for guidance as they begin to discover the benefits to our communities, institutions, and environment stemming directly from the benefits of advancements to Virginia’s clean economy initiatives.

Wafa May
VA-REA continued to grow in numerous capacities through 2019

- Overall membership increased 15%, from 49 to 56 members
- VA-REA continued its tradition of hosting two successful Leadership in Energy Advancement and Development (LEAD) series conferences on targeted issues facing the industry
- We began collaborating with James Madison University’s Office for the Advancement of Sustainable Energy to provide new services to members and to augment VA-REA’s organizational capability.
- VA-REA initiated a partnership with 4 other peer organizations to plan and host the first Virginia Clean Energy Conference in 2019.

![VA-REA Industry Representation](image)

Growth in VA-REA members
VA-REA’s 2019 Leadership in Energy Advancement and Development (LEAD) public education campaign provided exciting dialogue and discussion between diverse industry leaders. As always, we gathered noted experts to share their thoughts, engage in detailed conversation, and take audience questions. Our signature benefit continues to be an opportunity for constructive dialogue among the diverse members and stakeholders that our events host. More than 150 attendees participated in these two conferences to learn more about the issues while connecting with renewable energy colleagues.

Ultimately, the LEAD events demonstrated many areas where there is even more opportunity to be developed in renewable energy. And the Alliance continues to serve as a convener and catalyst for turning those opportunities into reality.

LEAD 1 Bioenergy Development Panel (Left to Right):
- Ryan Childress, Dominion Energy
- Guy Chapman, Collegiate Clean Energy
- Kameron Adams, Old Dominion University PhD candidate

LEAD #1 – Many Paths to Renewables in the Commonwealth

On March 28th, VA-REA presented its first LEAD-Series forum of 2019 in Richmond at the Lewis Ginter Botanical Gardens.

The morning panel discussed and analyzed Virginia state policy passed in the 2019 General Assembly session. Utilities, renewable energy developers, activists, and lawyers participated on the panel to share Virginia’s new energy policies.

Keynote speaker, former SCC Senior Assistant Attorney General Meade Browder, discussed Virginia renewable energy policy from the perspective of the Attorney General’s division of consumer counsel.

The day’s second panel addressed bioenergy development for the first time at a LEAD series conference. Utilities, researchers, and dioenergy developers discussed the new and upcoming biomass energy projects under development in the commonwealth.
LEAD #2 - Virginia Higher Education Powering the Renewable Energy Workforce

On June 28th, 2019 VA-REA hosted the second LEAD series forum of 2019 which included many firsts. This was the first LEAD conference hosted in the Eastern part of the state at Old Dominion University. It was also the first conference which brought together students, educators, and employers in a workshop-setting to discuss empowering the renewable energy workforce.

This interactive event was designed to foster awareness and collaboration among Virginia’s higher education institutions with renewable energy programming and to increase those schools’ engagement with industry. Our goal was to help Virginia companies and Virginia schools benefit from the many educational resources and growing renewable energy activity in the Commonwealth.

The morning panel featured a survey of 11 institutions of higher education in the commonwealth. The panelists provided overviews of their schools’ resources and programs that support graduate and undergraduate degrees, technical training and professional certification, and internships in wind, solar, renewable bio-fuels, and more.

The lunchtime keynote speaker, Jordan Philip from the BW Research Partnership, framed the afternoon discussion connecting renewable energy research and employment opportunities.

Actively hiring Virginia firms led small group workshops to understand Virginia’s hiring and technology needs, expand business collaboration with Virginia’s educators, and articulate the path forward for a growing industry.

A survey of 11 institutions of higher education in Virginia discussed programs that support renewable energy development in Virginia.
On December 10th, 2019 VA-REA hosted the Annual Members Meeting at McGuireWoods in downtown Richmond, VA.

VA-REA’s premier networking event included 70 guests, members and non-members alike, ranging from renewable energy developer CEOs to students looking to connect with potential employers. Stakeholders in renewable energy traveled from all over Virginia to come together and discuss business, policy, and partnerships.

VA-REA awarded Ivy Main the Virginia Renewable Energy Leadership Award at the Annual Members Meeting and voted in 4 new board members.

Thank you to our 2019 event sponsors!
Ivy Main is a lawyer, writer, energy consultant and an all-round powerhouse advocate for renewable energy in Virginia. She is a tireless proponent through her support for taking down the barriers to renewable energy by crafting legislation and by educating the public and legislators through her writing. She is highly respected for her knowledge and creative approaches in promoting renewable energy.

For over 10 years, Ivy has been a key solar advocate and volunteer leader with the Sierra Club at both the state and national level. Ivy serves as the Renewable Energy Chair for the Virginia Chapter and as a member of the Sierra Club’s award-winning Beyond Coal Campaign leadership team.

She is also a member of the Chapter’s Legislative Committee, where she spearheads the fight to advance solar energy in the General Assembly, including 2019’s flagship solar legislation, the Solar Freedom bill.

Ivy brought together over 50 diverse organizations (faith groups, municipal organizations, environmental groups, etc.) to support Solar Freedom, as the bill narrowly failed to pass out of the House Commerce & Labor Committee. As a highly respected expert in the field, Ivy is the go-to person for clean energy policy analysis and debate.

Her articles on Virginia energy topics appear on her Power for the People blog and the Virginia Mercury’s Op-Ed and are tremendous in the world of renewable energy education. The Solar United Neighbors proclaim the Power for the People blog as "essential reading for any Virginian interested in energy policy".

"When Ivy writes, everyone in the industry takes notice"
- Member nomination
The inaugural Virginia Clean Energy Summit was a roaring success with over 400 attendees that participated in the sold-out event. Attendees had the opportunity to listen to 76 speakers, including Virginia's Governor Northam, who kicked off the event by signing EO 43.

The idea for the Virginia Clean Energy Summit began in 2017 as the VA-REA Board considered a large conference focused solely on renewables. In 2018, staff initiated discussions with several other organizations to engage collaborators for the event. Ultimately, four other non-profits joined to host the summit:

- Maryland, DC, Virginia chapter of the Solar Energy Industries Association (MDV-SEIA)
- Resilient Virginia
- Virginia Advanced Energy Economy
- Virginia Energy Efficiency Council (VAEEC)

Governor Northam’s announcement Executive Order 43 got the day off to an exciting start. We then moved to a robust plenary discussion covering the transformation of the electric grid. The morning’s breakout session were organized around “end-users” of clean energy solutions. Attendees enjoyed a variety of presentations curated for local/state government, for business, for the residential market, and for the financial sector. Our lunchtime keynote, clean energy entrepreneur Claire Broido Johnson, shared her analysis of Virginia’s clean energy future. The afternoon had ten breakout session to choose from, covering topics from electric rate design and building energy codes to off-shore wind and EVs. The day ended with a panel of Virginia legislators taking questions on their ideas about clean energy policy.

Key support came from platinum sponsors sPower and the Mid-Atlantic PACE Alliance, gold sponsors Birch Studio and Thompson McMullen, nine silver sponsors, and twenty-six bronze sponsors. We’re planning something even bigger and better for 2020.

**Thank you to VA-REA member sponsors!**

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**BRONZE**

POLICY DEVELOPMENT

There was plenty of legislative, regulatory, administrative, and judicial activity in 2019 that will shape the renewable energy industry for years to come.

The "Co-op" Solar Bill

The 2019 General Assembly’s HB 2547/SB 1789 increases access to solar energy in co-op territories in a variety of ways, including:

1. Raising net metering caps to 5% in 2019 and up to 7% by 2024
2. Allowing third-party Power Purchase Agreements for tax exempt entities in 2019 and for certain other classes by 2024
3. Allowing residential solar arrays installed at up to 125% of load
4. Establishing a fixed plan for standby and demand charges to take effect in 2024

17th Energy Career Cluster

Requires the Department of Education, in consultation with representatives from pertinent industries such as renewable energy, natural gas, nuclear energy, coal, and oil, to establish an energy career cluster. The bill requires the Department of Education to base the knowledge and skill sets contained in such energy career cluster on the energy industry competency and credential models developed by the Center for Energy Workforce Development in partnership with the U.S. Department of Labor.

1. Raising net metering caps to 5% in 2019 and up to 7% by 2024
2. Allowing third-party Power Purchase Agreements for tax exempt entities in 2019 and for certain other classes by 2024
3. Allowing residential solar arrays installed at up to 125% of load
4. Establishing a fixed plan for standby and demand charges to take effect in 2024
Executive Order 43

“Virginia is well positioned to be a center of economic activity for this clean energy transition, and having this economic activity will help us capture the economic and health benefits from the clean economy for all Virginians.”
– Governor Ralph Northam

Governor Northam delivered the first public announcement regarding Executive Order 43 at the Clean Energy Summit. A standing-room only crowd of over 400 heard about the administration’s goals:

1. Obtaining 30% of Virginia’s electricity from renewable sources by 2030
2. Obtaining 100% of Virginia’s electricity from carbon-free energy sources by 2050
3. Obtain 30% of state government’s electricity from solar and wind energy sources by 2022

The plan to meet that state procure goal handily was revealed in October with announcements of 420 MW from five projects, including an on-shore wind project and four utility-scale solar installations. This would cover 45 percent of state government’s demand. The 20-year power purchase agreements with Dominion Energy obtain wind energy at 3.5¢/kWh for the first five years, rising to 5.3¢/kWh in the sixth year with increases continuing over time, and solar energy starting at 3.4¢/kWh, with a 2% escalator starting after the third year.

Governor Ralph Northam announces Executive Order 43 at the inaugural Virginia Clean Energy Summit, co-hosted by VA-REA
Utility-scale solar activity is thriving in the Commonwealth. At the end of Q3 of 2019 DMME staff are tracking 151 solar farms totaling 11.16GW with a facility study status of “Not Required”, “In Progress”, or “Complete”. The total in the PJM queue is 19.52GW, a 5.42GW increase since 2018. Note that not all of these specific projects will be built. Projected in-service dates on applications range from 2016 to 2023.

Projects of note include Northern Virginia Electric Cooperative in February signing a contract for the output of 300 MW solar farm. And in March and April, developer sPower received final permits to build a 500MW solar farm in Spotsylvania as well as a 340 MW solar farm in Charles City County.

Net-metered installations also continue to flourish. DMME staff counted 9,949 individual installations totaling 90.5MW at the end of Q3 2019.
WIND DEVELOPMENT

While the solar narrative is of continued and accelerating growth, wind’s story is of key turning points to begin construction. Off-shore, the 12 MW CVOW (2 turbines) pilot broke ground in July. And in September, Dominion Energy announced its intention to build out 2600 MW (~220 turbines) in the Virginia wind energy zone by 2026.

Then, in October, the 75MW Rocky Forge Wind on-shore wind farm in Botetourt County, which had cleared the final stages of local permitting in 2017, overcame its final hurdle: securing an offtaker. The Commonwealth of Virginia is contracting for the energy produced as part of their 420MW package that will meet 45 percent of the state government’s electricity demand.

BIOMASS DEVELOPMENT

At the first LEAD Conference, VA-REA hosted the first-ever panel focused solely on bioenergy, a renewable resource that is beginning to grow in capacity in the Commonwealth. Dominion Energy announced the Smithfield Foods partnership, which captures the methane that occurs naturally at hog farms when manure decomposes. Below are key details of the project:

1. Launch of a $250-million, 50/50 joint venture between Dominion Energy & Smithfield Foods
2. Largest renewable natural gas partnership in US history
3. Smithfield will use 90 percent of hog farms in NC, UT, & VA over the next 10 years to produce renewable natural gas
4. In Sussex County, Virginia, nineteen hog farms will supply the digester producing renewable natural gas.
**MEMBER HIGHLIGHTS**

**APEX CLEAN ENERGY**

In October, Apex Clean Energy secured an offtaker for the proposed 75 MW Rocky Forge on-shore wind farm in Botetourt County. The project cleared the final stages of local permitting in 2017, but was on-hold without an offtaker. As a part meeting goals outlined in Virginia’s Executive Order 43, the Commonwealth of Virginia was contracted for the energy produced as part of their 420 MW package that will meet 45 percent of the state government’s electricity demand.

The Rocky Forge wind farm will be Virginia’s first on-shore wind farm.

**Dominion Energy**

In July, Dominion Energy broke ground on Virginia’s first off-shore wind project with two pilot wind turbines, totalling 12 MW.

In September, Dominion Energy announced its intention to build out 2600 MW (~220 turbines) in the Virginia wind energy zone by 2026.

**sPOWERS**

In April, the Spotsylvania Board of Supervisors approved three special use permits for sPower’s proposed 500 megawatt (MW) solar project. Spotsylvania Solar Energy Center will be built in phases over the next two years and will ultimately generate over $20 million in new tax revenue for Spotsylvania County. The project is creating approximately 800 construction jobs and 35 full-time jobs.

Another large solar farm by sPower is the Keydet Solar project in Charles City County, coming in at 320 MW.

**VHB**

VHB orchestrated the launch of Virginia’s Pollinator-Smart program, which provides incentives and tools for the solar industry to adopt a native plant strategy to meet soil and water control regulations, community needs, and the needs of our biosphere.

In 2019, DEQ and DCR began developing the program alongside VHB and a network of teammates that included Fresh Energy, Ernst Conservation Seeds, Meadville Land Services, Dramby Environmental Consulting, Pollinator Partnership, and Prairie Restorations, Inc. Three stakeholder meetings were held throughout the year to gain input on the program and its associated materials. Two scorecards, a comprehensive manual, business plan, and monitoring plan were developed in 2019. The program will be officially launched in early 2020.