



**SIERRA  
CLUB**

VIRGINIA CHAPTER

# Virginia Sierran

The Official Newsletter of the Sierra Club Virginia Chapter  
Spring 2024

## Data center issues: power and water by Ann Bennett and Bill Johnson

**A**t his Jobs Event in Fredericksburg earlier this month, Gov. Youngkin was a giddy cheerleader for the data center industry. There is no doubt that this industry is transforming Virginia and it's not just about industrial "hyperscale" buildings. It is true that more data flows through more Virginia counties to serve companies and their national and international clients. And that is quickly expanding, as he proudly cheered. Unfortunately, the governor didn't give us the entire story.

Here's what the Governor did **NOT** say:

- 🌲 **Amazon Web Services (AWS) is obligated to bring only 1,000 jobs to Virginia**, not "thousands" of jobs.
- 🌲 AWS and eligible companies are highly subsidized, to well over \$1 billion, which will increase rapidly. **Residents pay for the tax breaks that this industry commands.**
- 🌲 **Data centers in Virginia could require 25,000 megawatts of power in the coming years.** That alone is already reversing the planned closure of polluting fossil fuel plants, while undermining state requirements to clean the grid. With the current build-out under way, we will need the equivalent of more than 28 new coal plants and will have to live with significantly worsened air pollution because of that.

## In the future, Virginia Data Centers could require a whopping 25,000 Megawatts of power.

- 🌲 **The governor required no environmental commitments from AWS**, such as requiring companies to procure clean energy to service their buildings or to meet aggressive energy efficiency standards. We will have to live with local, extremely polluting energy sources to support rapidly expanding world-wide technologies.
- 🌲 The increased power needs do not include greatly expanded artificial intelligence applications. So, **the amount of energy needed may require 10 times the current projections.**
- 🌲 **There is no state plan to protect drinking water resources** that will be needed to cool data center servers. So, local aquifers, rivers and streams will be depleted to cool the computer equipment, leaving the region short of drinking water from wells, lakes and rivers.
- 🌲 **Counties with large numbers of data centers show increased carbon emissions**, while all other sectors report decreased emissions. And the thousands of diesel generators used as backup energy sources

## We are seeking candidates for the Executive Committee!

by John Cruickshank

**Would you like to have more influence over Sierra Club policies and actions as we work to create a cleaner, healthier future? Here is your opportunity!**

We are now accepting nominations for the at-large delegates to the Virginia Chapter Executive Committee (ExCom).

Goal setting and policy decisions for the Sierra Club are made by volunteer leaders, working with the staff members we help to hire. The Virginia Chapter ExCom has eight elected at-large delegates and one delegate from each of our eleven groups. The at-large members are elected by the general membership and serve two-year terms.

The nominating committee is seeking candidates for four at-large delegate positions to serve in 2025 and 2026. Responsibilities include:

- 🌲 attending four virtual meetings a year;
- 🌲 participating in online voting when important issues arise; and
- 🌲 maintaining an understanding of the environmental issues in our state.

The Sierra Club is committed to diversity and equity, working to have its leadership look like the communities it serves.

August 31 is the deadline for submitting a nomination. If you would like to learn more about becoming a member of the Virginia Chapter ExCom, please contact me at [jcruickshank4@gmail.com](mailto:jcruickshank4@gmail.com) or 434-973-0373. I will be more than happy to answer your questions.

John Cruickshank, Chair, Nominations and Elections Committee



SEE DATA CENTER ISSUES ON PAGE 3 →

## From the chair



**H**ello! This is my first column as your new chapter chair. I'd like to take a few moments to introduce myself since I haven't had the pleasure of meeting most of you yet. And once we have been introduced, I hope you'll feel free to contact me if you have any questions about the Chapter or ideas you'd like to pass along. This is your chapter, and I think I speak for the entire Chapter Executive Committee and staff when I say that we want the Chapter to work for you, as well as the environment!

I've been a Sierra Club member for about 25 years and was able to become more active in the Chapter when I retired 3 years ago. Since that time, I've been on the executive committees of both the Chapter and the Great Falls Group. I am a past Chapter Conservation Chair, and until recently, as a "recovering lawyer," I also served as the Chapter Legal Chair.

I live in Northern Virginia with my husband, David, and our greyhound, Rocket. In our free time (i.e., when we aren't serving Rocket hand-and-foot, as he so richly deserves), we enjoy hiking, bike riding and annoying our (adult) children. We also foster dogs (usually greyhounds), and I have the privilege of serving on the boards of the #MEAction Network and the English Empowerment Center (formerly the Northern VA Literacy Council). I also work part-time as a crisis hotline

counselor for EveryMind, a nonprofit that handles mental health crisis calls for Montgomery County and the National Suicide Prevention Lifeline (988).

The recent death of our 31-year-old daughter Nora is front of mind for our family these days. Nora fell ill with ME/CFS about 11 years ago, when she was a senior in college. ME/CFS is a debilitating autoimmune disorder. Due to the severity of her illness, Nora was unable to finish college or work, despite her strong desire to engage in an active life. ME/CFS is not well understood by the medical community, but the consensus is that it can be triggered by almost any infection, including COVID and Lyme Disease.

The prevalence of autoimmune disorders has been increasing globally for at least the past decade, in large part due to changes in our environment. Evidence points to factors such as air pollution, climate change and the related increase in dangerous parasites and infections as major causes of these increases. While it's impossible to know precisely what caused Nora's illness, the fact that a vigorous and healthy young woman would suddenly be felled by a mysterious illness feels to us like one more example of the dire consequences of human-created environmental deterioration.

I mention this not because I want you to feel sorry for us (but feel free to do so if you want to; it truly is the worst thing that can happen to a parent), but to make the point that the work you all do, whether political, legal or otherwise, is even more critical than ever, for us, for our children and for life on this planet. During my time as chair, I hope to look for ways to encourage you to do even more. And since this is the time of the Chapter's annual donation drive, I also want to encourage you to dig deep into your pockets and donate, not just to Sierra Club Foundation, a 501(c)(3) organization where your donations are tax deductible, but also directly to the Virginia Chapter, a 501(c)(4) organization where your donations are not tax deductible but are crucial to the Chapter's ability to compete with well-funded polluters to influence our lawmakers to do the right thing for the environment and all of us who breathe air. And I encourage you to look at the wonderful hiking and other outdoor opportunities offered by the Club as an uplifting reminder of the beauty and wonder of this earth that we are working to protect.

I send you my warmest regards. Thank you for all your hard work, past and future. I hope to see you soon at one or more Sierra Club events!

**Judy Gayer**

### Virginia Sierran

Virginia Sierran is the official newsletter of the Sierra Club Virginia Chapter and is published quarterly.

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The editor welcomes editorial contributions, photographs and art work. Submissions should pertain to Virginia's environment and/or climate change. Email the editor with questions on submissions.

Please contact [member.care@sierraclub.org](mailto:member.care@sierraclub.org) for membership and mailing issues and [address.changes@sierraclub.org](mailto:address.changes@sierraclub.org) to change your mailing address.

# 2024 General Assembly Session disappoints, some climate wins survive

by Bob Shippee

The 2024 Virginia General Assembly session adjourned on March 9, the end of a disappointing 60 days of legislative action (or inaction). Despite optimism about our prospects after last November's elections, only one of our top five priority bills passed, and it faces a likely veto by Gov. Youngkin: HB1088, patroned by Del. Carr, would require the development of a climate change curriculum in Virginia schools, using peer-reviewed science.

Other priority bills were defeated mainly due to pushback from corporate lobbyists, which influenced some Democrats to side with Republican opponents: SB79 (Sen. Favola) and HB1456 (Del. Carr) would have required new or renovated municipal facilities to have solar-ready roofs and efficient designs, saving taxpayers money on energy costs; HB117 (Del. Sullivan) and SB346 (Sen. Subramanyam) would have resolved the 15-month shutdown of mid-size (250 kW-3 MW) solar installations due to Dominion unilaterally imposing unreasonable and expensive capital costs on these projects; HB116 (Sullivan) and SB192 (Subramanyam) would have required data centers to meet energy efficiency and renewable energy targets to qualify for state tax incentives; and SB409 (Sen. Boysko) (as well as an early version of HB950 carried by Del. Lopez) would have enabled localities to implement stronger building efficiency standards than the statewide code. These proposals represent common-sense measures to save ratepayers and taxpayer money while reducing carbon emissions, but Democratic leadership did not prioritize passage.

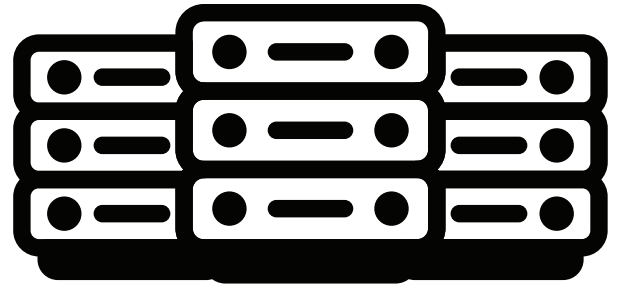
Democrats were able to defeat the now-annual attempts to repeal foundational environmental laws like the Clean Economy Act and Clean Car Standards. However, the allure of nuclear energy was too much to overcome, as bills patroned by Sen. Marsden (SB454) and Del. O'Quinn (HB1491) could allow Dominion and Appalachian Power to spend hundreds of millions of dollars of ratepayer money on speculative "small modular nuclear reactors," technology that is not operational anywhere in the U.S. and may never be economically feasible. Despite very high costs, unresolved waste disposal questions and high risk relative to renewable energy alternatives, these bills received bipartisan support.

To be sure, the 2024 session was not a total failure. We did pass SB729, the Clean Energy Innovation Bank, which allows Virginia to compete for billions of dollars in federal grants included in the Inflation Reduction Act (which federal agencies must spend by 2026, so time is of the essence), and restored Virginia's participation in the Regional Greenhouse Gas Initiative to the budget (awaiting action by Gov. Youngkin). And incremental improvements to Virginia's energy efficiency standards will result from passage of the SAVE Act (HB746 by Del. Webert and SB565 by Sen. Deeds). Minor expansion of Virginia's shared solar will also be achieved via SB253 (Sen. Surovell) and HB108 (Del. Sullivan), although Dominion's high minimum bill threshold continues to thwart any real traction in its territory.

Other good news is that some members of the General Assembly continue to show a keen and deep understanding of the importance of climate change and are aligned with the Sierra Club's goals. Several members of the General Assembly continued their tradition of introducing important climate and environmental legislation this year. Their leadership will be critical going forward!

**Two thoughts I will leave you with:**

SEE GENERAL ASSEMBLY, NEXT PAGE →



## Data center issues (continued from page 1)

will significantly increase the air, light and noise pollution for those living near data centers.

🌿 **Residents have not seen a reduction in local taxes due to data centers**, but often county boards of supervisors revel in the increased tax dollars received. We don't seem to benefit from those, however, although the industry benefits greatly from their tax savings.

## The data center industry could affect your health, your pocketbook, and your air.

**The governor also ignored this:** The data center industry defeated every bill introduced in the General Assembly this year that would have protected ratepayers from the cost of new infrastructure to power data centers; preserved water resources needed for cooling; protected parks from encroaching development; and instituted reporting requirements for energy demand, water usage and pollution.

The governor is right that the data center industry is having a "ripple effect." He just didn't tell you that the ripples will affect your health, your pocketbook, your water and your air.

**One last question:** Where will the additional power come from for the data centers? Add more nuclear reactors onto a site that is on an earthquake fault line? Even more nuclear waste will need to be stored on that site? The site prone to earthquakes will have to store more nuclear waste, forever.

In 2011, an earthquake's epicenter was 12 miles away from the North Anna site. That earthquake exceeded the design specs for those nuclear power plants. Could the plants withstand another such earthquake? Or one slightly larger?

**Ann Bennett is the data center chair and Bill Johnson is an ExCom member of the Virginia Chapter**

## Tribute to Lee Riggins Rich by Tyla Matteson

We were sad to lose Lee Rich on December 28, 2023, at the age of 94. Lee joined the Sierra Club in 1997, was a life member and a resident of York County, where she raised oysters in the Chesapeake Bay. She was an active, engaged member of the York



River Group, serving on the group's ExCom, as group political chair, and on the Chapter's political committee. Three years ago, Lee organized a program on the Great Dismal Swamp National Wildlife Refuge, bringing attention to federal legislation which will enhance the refuge under the National Heritage Area Act. She put together another program that year on shellfish in the Chesapeake Bay and the importance of increasing the number of oysters in order to improve the health of the Bay. Lee received a chapter award in 2021 for her fine work.

Lee was immensely supportive to me and the York River Group as we planned programs and worked on local political endorsements. I miss her greatly—her kindness, perseverance and astute analysis. She was a can-do environmentalist and “a force,” as I have heard some friends say. That is the best of compliments to a dear friend.

### General Assembly (continued from page 3)

For the first time in years, the State Corporation Commission, which regulates the energy (and other) industry in the commonwealth, will have its full complement of three judges, and they are all Democratic-nominated commissioners. This could bode well for regulatory progress going forward.

Each of us has an opportunity to reach out to our legislators prior to the next session (summer is a particularly good time to do so!) and express how important addressing climate change, carbon emissions, electrification, environmental protection and whatever other issues you are passionate about, so they will better understand how important these topics are to constituents. This is the best avenue we have to getting our leaders to prioritize these issues of generational importance. Thank you for all you do as grassroots advocates!

**Bob Shippee, Chapter Legislative Committee Chair**



## It's time to turn, not burn

by Eileen Woll and Lynn Godfrey

**W**ithout reductions in the earth's atmospheric temperature, which has risen due to fossil fuel production and operations, the climate crisis will continue to be the greatest existential threat to Planet Earth. With the U.N. weather agency issuing a red alert in March, citing “record-smashing increases last year in greenhouse gasses, land and water temperatures and melting of glaciers and sea ice” and warning that “the world's efforts to reverse the trend have been inadequate,” it's time for immediate corrective action.

The climate crisis is exemplified today by extreme weather events—flooding, uncontrollable fires, droughts and heat waves—all seen on a scale as never before. Greenhouse gas (GHG) emissions are the primary man-made cause of the earth's rising temperature, and they continue to pose a threat to maintaining an atmospheric temperature conducive to sustaining life.

Every ton of GHG cut makes a huge difference, but the window of opportunity for reducing climate pollution is rapidly closing. “There is a rapidly closing window of opportunity to secure a livable and sustainable future for all,” wrote an Intergovernmental Panel on Climate Change scientist in the March 2023 climate change report. This dire warning only underscores the immediate and urgent need to transition from fossil fuels to renewables at the same rate as the climate crisis threat is growing.

The U.S. is set to produce eight times more oil and gas than any other country in the world, over 60% of total production. According to the Clean Air Task Force, our oil and gas industry releases about 9 million tons of methane gas and other toxic chemicals into the atmosphere annually. This level of fossil fuel production and emissions puts us far off the course of avoiding the threats and realities of the climate crisis.

Besides devastating climate impacts, burning fossil fuels also impacts community health. Fence- and front-line communities—environmental justice communities—disproportionately bear the burden of these impacts. For example:

- 🌳 more than 1 million African Americans live within a half-mile of natural gas facilities
- 🌳 over 1 million African Americans face a cancer risk above EPA's level of concern due to unclean air
- 🌳 more than 6.7 million African Americans live in the 91 U.S. counties with oil refineries
- 🌳 African Americans are 75% more likely than white people to live in “fence-line” communities (areas near commercial facilities that produce noise, odor, traffic or emissions that directly affect the population).

SEE TURN NOT BURN ON PAGE 7 ➡

# Stay fired up against fossil fuels

by Cheri Conca

**T**ransit providers and school districts across the country are making headlines with their efforts to transition their bus fleets to fuel sources that are better for our health and climate than dirty diesel. Given that transportation is the number one source of climate-threatening gas emissions, this is good news. To help accelerate the transition, funding is available for clean buses and infrastructure. The not-so-good news is that some of that money also funds not-so-clean buses that run on fossil fuels like propane and compressed natural gas, or hydrogen, which is largely produced through a process that uses worrisome methane. The U.S. Environmental Protection Agency itself acknowledges that methane is 25 times stronger than carbon dioxide as a greenhouse gas! That’s why Sierra Club advocates for battery electric buses only.

Even when transit providers or school districts commit to an electric bus purchase or pilot program, clean transportation advocates must remain vigilant, because the fossil fuel industry continuously pushes elected officials and transportation decision makers to view propane, compressed natural gas, or CNG, and hydrogen as “clean.” Sure, hydrogen could one day become cleaner, when the process of creating “green” hydrogen through electrolysis is fueled by renewably sourced electricity. But for the time being, green hydrogen is scarce and expensive.

The EPA’s promotion of “alternative” fuels contributes to the misperception that compressed natural gas, propane and hydrogen are healthy for our planet. The EPA’s Clean School Bus Program hands out money for battery electric, propane and CNG buses, and some Virginia school districts have taken advantage of that funding to purchase fossil fuel propane buses rather than electric models. If that seems surprising, look at the Propane Education & Research Council’s nationwide campaign to push propane buses to understand why decision makers succumb to the propaganda. PERC’s persuasive letters to the editor were published in newspapers throughout the country, luring readers with promises of lower costs and cleaner air but omitting facts such as higher maintenance costs, lower fuel economy and higher pollution levels than battery electric buses. Full disclosure: PERC is operated and funded by the propane industry. The fact that the EPA even has an “alternative” fuel designation and subsidizes vehicles that run on those fossil fuels is evidence of the strong push by the fossil fuel industry. Decades ago, federal legislators who were backed by the industry fought to get these fuels classified as alternatives, thereby keeping the gas and profits flowing. The fossil fuel industry lobbies hard. We have to lobby hard, too.

Raising our voices for zero-emissions battery electric buses can be very effective. Recently, members of the Potomac River Group and partner organizations spoke up for battery electric buses in Arlington County, where the board of supervisors was considering a hydrogen bus pilot program. Board members listened, weighed the evidence and decided to order eight electric buses this year—a win for climate, the environment and public health. The board also unanimously rejected a proposal to buy several hydrogen buses, saving taxpayers millions of dollars.

Shortly after the Arlington County decision, the Charlottesville City Council voiced unanimous support for moving forward on zero-emission fuels to power Charlottesville Area Transit buses rather than continuing to operate the current diesel fleet or transitioning the fleet to run on CNG. Sierra Club volunteers supported the effort, which was led by our partner, Community Climate Collaborative. Charlottesville Area Transit also



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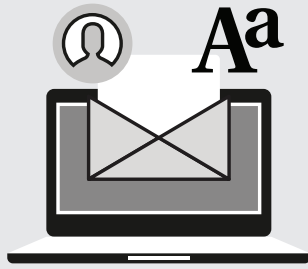
### Option II

In person with health screening for illness symptoms the 14 days prior to class. \$295 earlybird. Earn the internationally renowned two-year SOLO WFA certification.

Brought to you by Matthew Rosefsky, Geo Medic, street medic, SOLO Instructor-Trainer, Sierra Club Outings leader and volunteer strategist for Sierra Club National “Outdoors for All” campaign. See <https://solowfa.com> for more information and online registration.

DATE(S)	LOCATION
Apr 6-7	Charlottesville, VA
Apr 20-21	Blacksburg, VA
May 4-5	Richmond, VA
June 1-2	Washington, DC area
June 8-9	Charlottesville, VA
Aug 31-Sep 2	Mountain Top Retreat near Blacksburg, VA

SEE FOSSIL FUELS ON PAGE 10 ➡



## Virginia Chapter email lists

**Virginia Climate Movement:** Join this list of people active in the Virginia climate movement to receive and send emails on climate-related news, events, webinars and actions going on across the state. Bi-weekly call on Thursdays at 10am. 📧

**Contact Ann Creasy at [Ann.Creasy@sierraclub.org](mailto:Ann.Creasy@sierraclub.org)**

**Sierra Club Virginia Chapter Equity, Inclusion and Environmental Justice:** Join this list to work towards achieving environmental justice in Virginia. Our purpose is to identify environmental justice communities across the state, to develop EJ leadership, to provide room at the table for these organizations in statewide policy discussions and to share resources. This space is also for asking questions, voicing concerns and sharing ideas as we move forward in our work to create a more equitable environment and chapter. 📧

**Contact Gustavo Angeles at [gustavo.angeles@sierraclub.org](mailto:gustavo.angeles@sierraclub.org)**

**Hampton Roads:** Join this list to get updates about actions, events and ways to get involved in Hampton Roads. 📧

**Contact Ann Creasy at [Ann.Creasy@sierraclub.org](mailto:Ann.Creasy@sierraclub.org)** or visit <https://vasierra.club/hr>

**Richmond:** Join this list to get updates about actions, events and ways to get involved in the Richmond metropolitan area. 📧

**Contact Tim Cywinski at [tim.cywinski@sierraclub.org](mailto:tim.cywinski@sierraclub.org)** or visit <https://vasierra.club/rva>

**Northern Virginia:** Join this list to get updates about actions, events and ways to get involved in Northern Virginia. 📧

**Contact Cheri Conca at [cheri.conca@sierraclub.org](mailto:cheri.conca@sierraclub.org)** or visit <https://vasierra.club/nova>

## The beauty of intractable problems in the built environment by McKenna Dunbar

Imagine walking through a city where every building, every home and every piece of infrastructure tells a story not just of architecture but of health, equity and our relationship with the environment. This vision isn't a distant dream but a narrative unfolding in our time, driven by the complex challenge of rethinking how our physical world shapes public health and our dependence on fossil fuels. It's a journey that unveils the hidden beauty in what many consider intractable problems.

Recently, I had an enlightening conversation with Susan Stillman and a colleague deeply involved in building decarbonization. Susan emphasized the importance of recognizing the dedication and energy that countless individuals have poured into addressing these so-called "intractable" problems. She highlighted how at the Sierra Club, dedicated volunteers tirelessly work to mitigate and support critical initiatives, tackling these formidable challenges head-on. Their commitment underscores the fact that these efforts, far from being in vain, are crucial to driving meaningful change.

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**By concentrating on the spaces where we live and work, we pave the way toward a future where clean air and sustainable energy are not luxuries but accessible necessities for all, irrespective of geographic location.**

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The discussions surrounding gas decommissioning, bolstering appliance pollution standards and enhancing building codes might seem esoteric or overly technical. However, they are fundamental to fostering a healthier, more equitable future. The buildings we inhabit, the materials they're constructed from and the energy that powers them aren't merely static elements of our environment; they're pivotal to our collective quest for a sustainable and just world. This mission to rectify the inefficiencies and injustices embedded in our built environment is rooted in a deep ethical commitment to alleviating suffering and promoting fairness.

This mission is particularly vital for communities that have historically been marginalized—BIPOC and rural populations, among others—who disproportionately face the consequences of environmental neglect and energy disparities. Addressing these challenges demands bold thinking and decisive action. It's not enough to simply adjust existing policies or introduce new technologies; we must fundamentally reimagine our approach to public health and energy consumption.

By concentrating on the spaces where we live and work, we pave the way toward a future where clean air and sustainable energy are not luxuries but accessible necessities for all, irrespective of geographic location. This path is as much about ethics as it is about clean energy finance, engineering, and management. When we give precedence to initiatives that may appear small or niche, such as improving building insulation or implementing stricter pollution controls, we're making a powerful statement about justice and equity. We're affirming that everyone deserves a healthy living

## Turn not burn (continued from page 4)

In Virginia, there are a significant number of dangerous gas projects, including:

- 🌲 the Mountain Valley Pipeline
- 🌲 the Virginia Reliability Project and the Commonwealth Energy Connector pipelines
- 🌲 the Southside Reliability Enhancement Project
- 🌲 the Virginia Electrification Project
- 🌲 the proposed Williams Transco Southeast Enhancement Reliability Pipeline
- 🌲 Dominion's proposed Chesterfield Peaker Plant in Chesterfield County.

The threats imposed by these projects exacerbate the impacts of climate change. As reported by Oil Change International and Bold Alliance in *The Mountain Valley Pipeline: Greenhouse Gas Emissions Briefing*, **the MVP alone will emit 89 million metric tons of carbon emissions per year**, the annual equivalent to emissions from 24 coal plants. Adding insult to injury, not only does the fossil fuel infrastructure increase our exposure to climate change, it also contributes to the destruction of the natural structures that offer some risk mitigation against its impact, such as wetland destruction and sedimentation and erosion impacts on water. It is time to turn to renewable energy sources and not burn fossil fuels for our energy needs.

In 2021, the University of Virginia's Weldon Cooper Center for Public Policy published a report called *Decarbonizing Virginia's Economy: Pathways to 2050*, which demonstrates that decarbonizing Virginia's economy is both feasible and affordable and offers multiple benefits beyond lowering GHG emissions. It states, "In all scenarios analyzed, Virginia's expenditures on energy, as a share of Virginia's economy, will be lower than in the recent past." Moreover, the economic benefits in improved health, reduced global warming and greater domestic energy production outweigh the costs. Importantly, the report finds that accelerating decarbonization is vital as a "quicker start means lower long-run costs; delay is costly."

According to this report, offshore wind has the potential to deliver upwards of 30% of Virginia's 100% clean energy goals, allowing Virginia to confront the climate crisis head-on with a renewable energy source that provides massive economic development opportunities and creates thousands of local, long-term, family-supporting jobs for many Virginians, including high school and college grads, returning citizens and veterans transitioning to the civilian workforce.

The Coastal Virginia Offshore Wind project will produce 2.6 gigawatts of electricity—enough clean energy to power up to 660,000 homes and avoid as much as 5 million tons of carbon emissions annually. In 2024, the federal government will lease an additional area for Virginia offshore wind development, which is easily capable of producing at least another 2.6 gigawatts of clean energy and doubling the emissions avoided. Wind power from Avangrid's Kitty Hawk project off North Carolina's coast will come onshore and enter the PJM electric grid via Virginia with 3.5 gigawatts of wind power.

These three projects—all estimated to be online by 2030—will deliver almost 9 gigawatts of clean power to Virginia, power over 2.3 million homes and avoid approximately 17 millions tons of carbon emissions. That's the equivalent of having over 4 million gas powered cars removed from roads or 45.4 gas plants shut down.

Full build-out of the offshore wind industry in Virginia is estimated to create over 5,200 jobs. Even without those near-future offshore wind jobs, clean energy continues to generate more jobs than gas, coal and

SEE TURN NOT BURN ON PAGE 8 →

## Group Directory

Groups are organized to conduct the work of Sierra Club in local areas, cities and towns. The information listed below is for the chair of each group. Information regarding groups' geographical area can be found on our website under Find a Group Near You.

### Chesapeake Bay

John Luker  
757-337-4092  
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### Falls of the James

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### Great Falls

Susan Bonney  
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### New River Valley

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### Piedmont

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### Potomac River Group

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### Rappahannock

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### Roanoke

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540-343-5080  
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### Shenandoah

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### Sierra Club Potomac Region Outings (SCPRO)

Gary Kosciusko  
703-946-8111  
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### York River

Tyla Matteson  
804-275-6476  
tmatteson1@mindspring.com

## Turn not burn (continued from page 8)

oil combined. In 2022, there were 97,156 jobs in clean energy in Virginia, up 3.6% from the previous year. Nationally, there were 3.2 million Americans working in clean energy, up 5% from a year earlier. Meanwhile, fossil fuel jobs accounted for most of the energy jobs lost, with a decrease of 29,270 jobs, down 3.1%.

Eileen Woll, Offshore Energy Program Director,  
eileen.woll@sierraclub.org  
Lynn Godfrey, Just Transition Program  
Manager, lynn.godfrey@sierraclub.org



Participants on a recent SCPRO outing on the Mount Vernon Trail in Alexandria (photo by Gary Kosciusko).

## Break free from the keyboards/screens and get outdoors with us!

by Gary Kosciusko

Numerous studies during the height of the pandemic have shown a correlation between increased screen time and increased levels of stress, anxiety and depression associated with social isolation. Time on the phone or computer is a poor substitute for in-person interaction. So, the question is, are you in charge, or is your phone or computer in charge? If the answer is that you are not the one in charge, then declare your independence from the machine and break free from the keyboard/screen on a regular basis. Try scheduling regular time outside in nature. Your whole body will thank you for it. And what better way to do that than to go on a Sierra Club Outing? Outings are a fun and healthy way to explore and enjoy the great outdoors. For more information, visit: [www.sierraclub.org/virginia/outings](http://www.sierraclub.org/virginia/outings)

by Gary Kosciusko, Chair, Sierra Club Potomac Region Outings (SCPRO)

# Louisa County Data Center

by Kirk Bowers

The Louisa County Board of Supervisors is reviewing a proposal from Amazon Data Services (ADS) to build a seven-building data center campus that would span more than 1.7 million square feet (39 acres) at full build-out. The site would include six two-story buildings offering 256,284 square feet (23,810 sqm) and 12 pods each, alongside a single two-story building offering 185,864 square feet and eight pods. The project would permanently impact nearly an acre of wetlands and 3,059 linear feet of stream channel.

If approved, ADS's average daily raw water demand would be 620,000 gallons supplied by Northeast Creek Reservoir. ADS anticipates a demand for three gigawatts of electricity, enough to power over 2.2 million homes, equivalent to over 8 million tons of carbon dioxide emissions per year.

In the draft performance agreement under review by ADS and the board, there are no plans to perform a water supply study for Northeast Creek Reservoir, or to generate 3 GW of electricity from renewable power fuel sources. These are two of several issues that impact the surrounding community and environment.

We are collecting signatures on petitions and action alerts to ask the board of supervisors to verify that there is an adequate water supply for 50 years by commissioning a water supply study and require Amazon to use renewable energy as a power supply source for the data center.

## Fundraising efforts

This article is written to acknowledge two fundraising efforts, one recent and our **Big Yard Sale** in May.

Volunteers and staff members took time to enhance our annual fundraising effort called the **March Appeal** by handwriting the addresses on over one thousand envelopes. The reason we hand-address and stamp the Chapter fundraising letters is because the Club believes it is important as an organization that operates solely on donations and only does three solicitations per year to have more personal communications. This method has been shown to increase returns, and according to Chapter Director Connor Kish, this is proving true here in Virginia as donations begin to come in.

### Thanks go to these envelope addressers:

- 🌲 Barb Adams
- 🌲 Joe Brancoli
- 🌲 Bill Muth
- 🌲 Aileen Rivera
- 🌲 Lee Williams
- 🌲 Gustavo Angeles
- 🌲 Daryl Downing
- 🌲 Shavon Peacock
- 🌲 Bruce Tarr
- 🌲 Glen Besa
- 🌲 Tyla Matteson
- 🌲 Christian's Riederer
- 🌲 Ben Weiner

The Falls of the James Group is planning for its 25th almost-annual event, the **Big Yard Sale**, a two-day sale of gently used student items (e.g., furniture, clothing, household items, etc.) collected by volunteers during move-out week. Proceeds from the sale go to the Falls of the James Sierra Club chapter and support initiatives undertaken by University of Richmond's student sustainability organizations. The sale typically mobilizes about 60 volunteers. It will be held in the university football stadium in mid-May.

East Concourse: mini fridges, microwaves, chairs, televisions, lamps, bookcases, shelves, small tables.

West Concourse: books, linens, clothes, shoes, office supplies, art supplies, decor, cleaning supplies, electronics, kitchenware, and more.

We are inviting an observer from the Binghamton, New York Sierra Club group to visit, after they contacted us last year, expressing interest.





Virginia Chapter Energy Chair Scott Ziemer and Conservation Chair Kirk Bowers with Janet Walker, Ruth Stornetta and Beth Kuhn at the RMN Annual Meeting.

## Piedmont Group updates

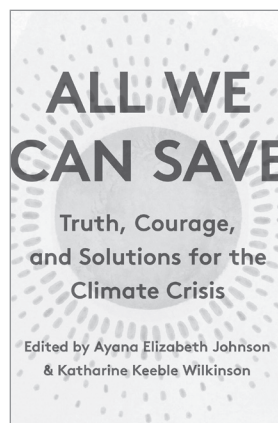
by Donna Shaunesey

We've had some great programs with local groups: ReLeaf Cville, Rivanna Master Naturalists and a dragonflies expert, and our Earth Flag was awarded to unsung local environmental heroes Rivanna Master Naturalists at their annual meeting. What a fabulous group! Their 200+ group members have put in thousands of volunteer hours each year with efforts like citizen science, invasive plant removal and nature education for adults and children. On **June 9**, we'll have a presentation by Dean King, author of the book "Guardians of the Valley: John Muir and the Friendship that Saved Yosemite," and on **July 25**, Lawrence MacDonald will discuss his book "Am I Too Old to Save the Planet? A Boomer's Guide to Climate Action." In the meantime, we'll be tabling at several community fairs and events.

The Piedmont Group is actively working on a number of other local projects, including commenting on Albemarle County's proposed cell tower siting regulations; working to ensure that the license renewal for the North Anna Nuclear Reactors involves a thorough safety review; commenting on Albemarle County's proposed solar project siting regulations, as well as the proposed Comprehensive Plan and Albemarle County's upcoming decisions about allowing bicycles and dogs at the Ragged Mountain Natural Area.

## All We Can Save

Mark your calendars for a Community Read of the book "All We Can Save", with essays about the climate crisis and how we can help. The books will be free throughout the area starting in late March, distributed by local libraries. The project will culminate in a panel discussion on some of the topics in the book. This is a cooperative effort with Albemarle County's Office of Equity and Inclusion, Charlottesville NOW, Charlottesville's Office of Climate Protection, and the Piedmont Group.



The panel will take place on **April 21st from 1:00-3:00pm** at: **Central Library, 201 E. Market Street, Charlottesville, VA 22902**

## Partnerships enrich our work to reduce single-use plastics

by Audrey Dannenberg

The General Assembly passed the plastic bag tax law in 2020, thus enabling Virginia cities and counties to pass their own bills. Ten Virginia cities and counties now have the 5-cent plastic bag tax. The Piedmont Group was instrumental in persuading Charlottesville City and Albemarle County to implement this tax, which became effective January 2023. We purchased and distributed 800 reusable canvas bags to low-income areas, grocery stores and food banks.

Since then, two local businesses in the McIntire Plaza—Scrappy Elephant, a craft store that resells donated items, and Refill Renew C'ville, where you can refill containers with home and personal products to reduce plastic container use—collect reusable bags for the Piedmont Group. We distribute the bags to the International Rescue Committee and several food banks. Donated reusable wine bottle bags are taken to Twice as Nice, a thrift store on Preston Avenue that sells donated clothing, furniture, gifts and household items, where they use them to pack glassware. Scrappy Elephant takes unusable bags to textile recycling.



Anecdotal evidence suggests that there are fewer plastic bags in grocery carts and more reusable bags. Since we still find plastic bags hanging from tree limbs and in our waterways, the Piedmont Group will continue working with this network of cooperating businesses for the foreseeable future. We are making a difference! Albemarle County recently reported that they've collected about \$10,000, which will be used to promote litter control.

**Fossil fuels (cont'd from page 6)**



decided to only consider hydrogen buses in the future if the hydrogen is produced by electrolysis rather than fossil fuels. Although the movement to switch to zero-emission electric buses is strong, there is still a need for Sierrans and other climate activists to educate and advocate for battery electric buses, especially with so much misleading information about “alternative” fuels that continue to contribute to climate-threatening tailpipe pollution.

**The beauty of intractable (continued from page 6)**

environment and that every community has the right to flourish.

In tackling these intricate challenges, we uncover opportunities for innovation and transformation. We discover that our built environment can serve as a force for positive change, enhancing not just physical well-being but also fostering social justice and equity. This realization is the essence of confronting what appears to be intractable: it compels us to combine creativity, compassion and courage, bringing forth the best in ourselves.

Together, we’re crafting a narrative of hope, resilience and the indomitable human spirit. As we strive to transform our physical spaces to embody our highest ideals of health, equity and sustainability, we’re not just changing the physical world, we’re also validating the best of our collective identity and potential.

This is the promise and the challenge before us—to not only envision but to create a world that reflects our deepest values and aspirations. Thank you to all the volunteers at Sierra Club Virginia Chapter for your work and willingness to lean into the intractable.

**Wind, solar and birds in the Mid-Atlantic by Natalie Loeffler**

**T**he Audubon Society Mid-Atlantic (ASMA) held an informational webinar regarding the potential risks and rewards that new wind and solar efforts have on bird populations on the East Coast. The recent plans to build a collection of solar farms down the East Coast have raised concerns regarding the safety of migrating bird populations as well as many marine mammals and human activities, like fishing and shipping vessels.

Although it is hard to predict the future of an industry that is constantly expanding, the use of solar energy is projected to increase 6.6 times by 2050 and offshore wind 2.2 times. The use of other renewables and fossil fuels are projected to flatline or decrease by the same time. It is possible that solar has not yielded its full potential because most of the solar projects in the U.S. are not placed in areas with the highest solar potential, such as the southwest or areas of Florida. A similar pattern has been observed with wind projects. Partnering with the Avian Solar Work Group, ASMA aims to protect our natural resources by educating lawmakers and collaborating with other environmental groups and communities.

ASMA is tackling these concerns by using a series they call “The Three P’s: Policies, Planning Processes, and Projects.” By creating policies that incentivize building solar on areas of low conservation value (such as parking lots), we can use the heat created by these areas to give back to the environment without taking anything away. We should also be planning these energy programs to benefit as many people as possible. Audubon Washington, for example, compiled data from a variety of stakeholders on areas that they thought to be the most ecologically important. By overlapping this data, they were able to determine a solar site that could benefit the majority of stakeholders. Finally, we need to research avian, native plant and other ecosystem tradeoffs and their relationship with solar infrastructure.

**The use of solar energy is projected to increase 6.6 times and offshore wind 2.2 times by 2050**

The offshore wind projects also do not correlate with areas with high wind capacity, like Northern California or Alaska. Fortunately, the 191 wind turbines and 4 substations currently off the Maryland coast are producing 750 megawatts, enough to power half a million homes, and 1475 MW off the Pennsylvania coast. Unfortunately, they could pose potential threats to migrating bird populations, marine life and human activity.

Wind farms should be organized in a similar way to how Audubon Washington organized their solar farm. Mapping the migration path of multiple species of birds, marine mammals and human activity has allowed scientists to overlap these zones to see the area of combined impact, or hot spots. Likewise, designing the blades in an alternating black and white pattern would allow birds and bats to see the fast spinning blades more easily. Attaching acoustic deterrence, like sonar, can help echolocating animals, like bats and whales, to avoid the windmills too. Thankfully, current wind farm projects have reported that less than 12% of birds fly within the designated “danger zone.” In fact, the experimental turbines off

SEE WIND, SOLAR, AND BIRDS ON BACK PAGE ➡

# Update on two tick-transmitted diseases in humans

by Richard S. Groover

In the topic of zoonotic diseases, two prominent ones in Virginia are Lyme Disease and Alpha-gal. Climate change is increasing their occurrence in Virginia. We provide in this report an update as to the current prevalence of these two diseases.



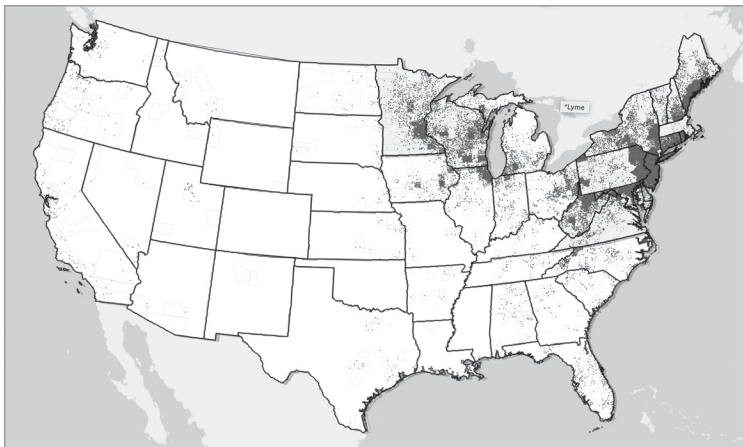
## Lyme Disease

Lyme Disease is a tick-borne disease caused by the *Borrelia* bacteria in infected ticks. Within the United States, specifically Virginia, the *Borrelia burgdorferi* spp., is the dominant species of bacteria found in Lyme Disease cases. The condition arises in humans when ticks, specifically

blacklegged ticks, in their nymph stage take a bloodmeal on humans. The CDC describes the early clinical manifestations of Lyme Disease in humans as including erythema migrans, a bullseye-shaped rash, chills, fatigue and headaches.

Lyme Disease is primarily transmitted by the blacklegged tick, or deer tick, *Ixodes scapularis* (above) in North America, but other kinds of ticks can spread it as well, including the castor bean tick, *Ixodes ricinus*, which is one of the ticks responsible for transmitting Lyme Disease in Europe.

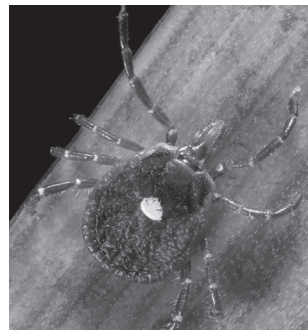
A report from the CDC states that Lyme Disease is the most common vector-borne disease with approximately 476,000 people per year being diagnosed and treated. With climate change, the areas where Lyme Disease is common are also expanding to include the mid-Atlantic region. The CDC has published a map of Lyme Disease distribution in the United States (below).



**Geographic Distribution of Lyme Disease cases in the United States, 2021.**

After a few weeks of initial antibiotic treatments for Lyme Disease, some patients may still have symptoms of muscle and joint pain, fatigue and cognitive difficulties. This indicates the patients are suffering from post-Lyme Disease treatment syndrome. There is difficulty in identifying post-Lyme Disease

treatment syndrome because there are currently no markers or laboratory tests to confirm the disease. Typically, the disease diagnoses come from clinical exclusion criteria.



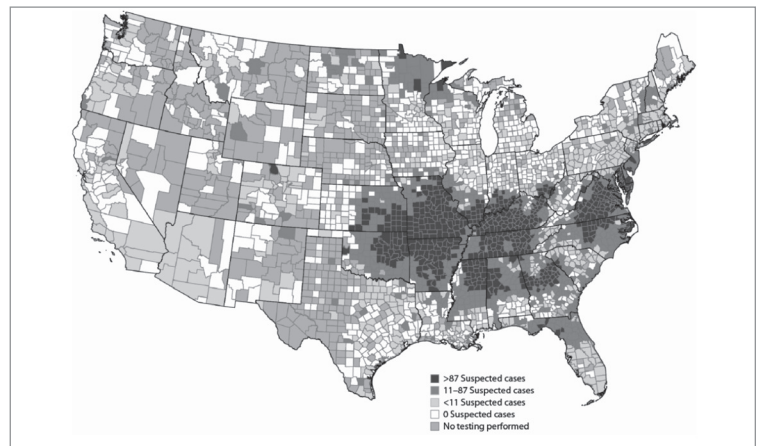
## Alpha-gal

Alpha-gal is a sugar molecule found in most mammals but not in humans. Alpha-gal syndrome (AGS) is a serious allergic condition resulting from a bite from specific ticks. The onset of its symptoms occurs in some humans after eating red meat or being exposed to animal products, like milk. The symptoms include hives over an extensive

portion of the affected person's body, and other responses can occur.

AGS is primarily transmitted by the lone star tick, *Amblyomma americanum* (above), but other kinds of ticks have not been ruled out by some epidemiologists.

A report from the U.S. Center for Disease Control stated that between 2010 and 2022, more than 110,000 suspected cases of AGS were identified. However, many cases of AGS were not notifiable to CDC, so it is not known how many actual cases of AGS existed in the United States in that time period. The CDC has published a map of Alpha-gal distribution in the United States (see below).



**Geographic Distribution of Alpha-gal cases in the United States, 2022.**

The prolongation of Alpha-gal allergic reaction varies per infected person. It has been noted that in most cases it subsides within one year, and the patient can return to consumption of red meat and animal products after the symptoms subside.

Both mentioned zoonotic diseases transmitted by ticks of various species will continue to impact humans. The use of essential oils that repel both tick species as well as wearing certain sprays on clothing while out in the woods help avoid these tick species. The best strategy for avoidance of these diseases is to thoroughly inspect oneself and remove ticks after being outdoors. We recommend bathing with homemade soaps that are very high pH, as these will result in ticks disengaging from the human skin.

**Dr. Richard Groover is a professor at George Mason University and a member of the Falls of the James Group**

**The Virginia Chapter of the Sierra Club is over 20,000 members strong.** We are your friends and neighbors working to build healthy, livable communities and to conserve and protect our climate and environment. The Virginia Chapter is part of the national Sierra Club, the nation's largest and most influential grassroots environmental organization.

Information about our staff, executive committee and environmental action chairs can be found on the Virginia Chapter website under "About."

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### Wind, Solar, and Birds (cont'd from page 6)



the coast of Virginia have yet to report any bird collisions at all.

By focusing on advocating for solar-friendly policies, engaging all stakeholders and maintaining different mitigation strategies, ASMA believes that the efficiency of solar and wind do not have to have the negative environmental impacts often associated with these efforts. With global energy consumption predicted to increase by 15% by 2050, finding ways to dull the impact on birds can save two-thirds of species. What affects birds will affect us all.