

# The Appalachian VOICE

FREE

December 2019  
January 2020

## On the Path to Clean Energy



Towns and states work toward 100% renewable energy

Pushing back against energy restrictions

Stories from Appalachia's solar tour

## Appalachian Music

Shapenote singing, handbuilt instruments and hip hop

## Threats to Oaks

An alliance emerges to protect our mighty oak trees



## Multi-State Healthcare Merger Draws Months-Long Protest

In the early spring of 2019, Dani Cook, a disabled Tennessee grandmother and veteran, sat down in front of Kingsport's Holston Valley Medical Center and refused to leave.

Cook wasn't just catching some sunshine in her lawn chair — she was a protester. Holston Valley Medical Center joined a new nonprofit healthcare corporation called Ballad Health, which encompasses hospitals in 29 counties across Virginia and Tennessee. Ballad was the result of a February 2018 merger between two previous health systems in an effort to reduce the combined \$1.3 billion in debt the companies had incurred over time. To cut costs, the new Ballad Health downgraded Holston Valley's trauma center and shuttered its neonatal intensive care unit. This means some

Kingsport-area trauma patients will have to travel to Johnson City, Tenn., for treatment. These two pieces of health infrastructure saved Cook's granddaughter's life and the lives of many other community members who are concerned about cuts to healthcare services.

The notion to combine two separate health systems into one was refined over three years of small meetings between Virginia and Tennessee local officials, state senators, representatives, departments of health, attorneys general, and business and education leaders. The process that created it, a Certificate of Public Advantage agreement, put price and competitive controls in place, which allowed Ballad to avoid the antitrust laws and federal scrutiny that come with a straight merger.

The Federal Trade Commission generally blocks healthcare mergers on the grounds that they diminish the quality of service for patients while also allowing the prices of services and the wages of workers to be set by the new corporation. This was the largest COPA merger, and the first to ever cross state lines. The FTC declared its opposition to the merger in 2018 after hearing overwhelmingly negative testimony from the community.

Ballad Health is now the only hospital system for the 1.2 million people in far Southwest Virginia and Northeast Tennessee. According to Johnson City radio station WCYB, The system employs 14,000 people, and is one of the largest hospital systems in the country. Outside of Holston Valley Medical

Center, more lawn chairs joined Cook's over time, and as of early December, the protest had been present for more than 200 days, for 24 hours a day, with shifts of up to 10 protesters at a time. Community response to the merger has included a petition with 23,000 signatures, a public forum and several outreach trips to Washington, D.C.

Though the asks were initially specific — don't downgrade the trauma center, and save the neonatal intensive care unit — over time, they encompassed a larger demand for Ballad Health to halt its plans completely. Ballad has filed a vandalism complaint against Cook for the protest, which was under investigation by the city of Kingsport as of press time in early December. — *By Caitlin Myers*

## Kentucky River Receives 15,000 Blue Catfish from West Virginia

The West Virginia Division of Natural Resources donated 15,000 blue catfish to restock the Kentucky River in October. Paul Wilkes, acting director of fisheries for the Kentucky Department of Fish and Wildlife Resources, expressed his gratitude for the donation. "We're grateful to West Virginia for helping us fortify blue catfish populations in areas where numbers are low and catfishing

is popular," he said in a press statement. Earlier this year, a gift of 38,000 surplus cutthroat trout from Arkansas were stocked in Kentucky's Cumberland River.

"These are just further examples of where state and federal governments work together to provide more opportunities for anglers everywhere," Wilkes said. — *By Rachael Kelley*

## Groups Restore NC Linville River for Trout

A number of state and private environmental groups have been restoring a portion of the Linville River flowing through the Gill State Forest in Western North Carolina to improve habitat for trout and other aquatic species.

The state Forest Service and Division of Water Resources teamed up with the nonprofit land conservation organization Resource Institute, Inc., and the company

North State Environmental to repair erosion damage and shallow waters, according to the North Carolina Forest Service.

State Forest Hydrologist Bill Swartley told Public News Service that maintaining rivers in North Carolina helps manage storm-water runoff from more extreme weather events. — *By Jack Singletary*

## Bill Would Redesignate New River Gorge as National Park

A new bill introduced this fall intends to shift the designation of the New River Gorge National River to a national park and preserve. Sen. Shelley Moore (R-WV) and Rep. Carol Miller (R-WV) introduced the New River Gorge National Park and Preserve Designation Act in the U.S. Senate and U.S. House of Representatives, respectively.

A 2018 study found that redesignating an area as a national park increases visitors by 21 percent on average, so the plan would likely benefit West Virginia's \$9 billion outdoor recreation industry. The legislation also intends to preserve most of the area's hunting and fishing lands, but hunting would be prohibited on 5,000 to 6,000 acres of the park's 72,000 total acres. This has raised concerns from some local businesses and hunters.

In October, U.S. Senators Capito and Joe Manchin (D-WV), along with

Rep. Miller, led a public discussion about the bill in Lansing, W.Va., that was attended by community and business leaders. When asked if they supported the bill, a majority of the crowd raised their hands, according to the Associated Press.

For some local organizations, like Friends of the New River Gorge, all that matters is that the land remains protected.

"Friends of the New River Gorge National River's purpose and mission is to support the National Park Service in its effort to preserve and protect the New River Gorge, Bluestone National Scenic River and the Gauley River National Recreation Area, regardless of the formal designation(s)," Anna Ziegler, the organization's president, wrote in an email. — *By Rachael Kelley*

## NC Manufacturer Receives Environmental Award

In October, the North Carolina Department of Environmental Quality awarded Eaton, an electrical manufacturing company with a facility in Arden, N.C., with a 2019 Environmental Steward Plaque in recognition of the site's environmental stewardship accomplishments.

The site has sent zero waste to the

landfill since December 2017, according to a DEQ press release.

"We achieve our [Zero Waste-to-Landfill] goals by reuse, recycling, composting and incineration for energy generation," reads a statement in Eaton's 2018 Sustainability Report. — *By Jack Singletary*



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## Pipeline Update

# North Carolinians Speak Out Against Fracked Gas Projects

By Ridge Graham

On Nov. 19, the DEQ heard from landowners and concerned residents during a public hearing in Rockingham County, N.C., about a water quality permit for the proposed MVP Southgate extension. The project would lengthen the unfinished 303-mile fracked-gas Mountain Valley Pipeline by another 73 miles from Pittsylvania County, Va., into North Carolina's Rockingham and Alamance counties, and would require a new compressor station to be built at the Virginia starting point.

The DEQ required this public hearing after putting MVP Southgate on hold and requesting additional information in September. The North Carolina agency was among the thousands of individuals and organizations who submitted comments critical of the Federal Energy Regulatory Commission's draft environmental impact statement for the project.

In late November, FERC delayed the projected release of their final MVP Southgate environmental impact statement from December 2019 to Feb. 14, 2020.

More than 50 people came to the Nov. 19 meeting and 17 gave prepared statements against the pipeline. The vast majority opposed the fracked-gas project.

"My family has been farming this land for over eight generations and it's shameful that polluting corporations can take control of it to line their pockets," said Perry Slade, a farmer in Alamance County, N.C., whose farm is in the pipeline's proposed route. "The fracked-gas Mountain Valley Pipeline is dirty, dangerous and a threat to my life and livelihood that isn't even needed."

Ramona Bankston, a landowner

in Rockingham County, N.C., who would be impacted by the project, also spoke.

"I just want my land to be safe, I want everyone in Rockingham County, Alamance County and everywhere else to be safe and not to have to bear the bulk of the devastation that we're seeing behind this project," said Bankston.

The N.C. DEQ is accepting written public comment at PublicComments@ncdenr.gov on the water quality permit until Dec. 20. Commenters should list "MVP Southgate" in the email's subject line.

### Robeson County

On Nov. 16, dozens of North Carolinians held a "March for Justice" in Robeson County to protest a proposed liquefied natural gas facility. Duke Energy subsidiary Piedmont Natural Gas plans to build the structure within one mile of an elementary school that is 95 percent students of color, primarily Native American.

Piedmont states that the facility is needed to meet customer demands during times of high usage. The facility would be a source of hazardous air pollutants like benzene.

In April 2019, Piedmont withdrew the liquid natural gas facility's air quality permit application to the DEQ, citing a regulatory exception for gas-powered heaters. The company does not need



More than 40 people joined the "March for Justice" on Nov. 16 in Robeson County, N.C., in protest of a proposed Piedmont Natural Gas liquefied natural gas facility. Photo by Ridge Graham

a water quality permit for the facility, despite its location on land that regularly floods and that is situated between two tributaries of the Lumbee River, a nationally designated "Wild and Scenic River" that is integral to the Lumbee Tribe of North Carolina. It is also the drinking water source for thousands of people.

Piedmont has a poor environmental track record with such projects. Under state orders, the company dug up contaminated soil from 2008 to 2018 at its liquefied natural gas facility in Huntersville, N.C. The groundwater is still contaminated at that location.

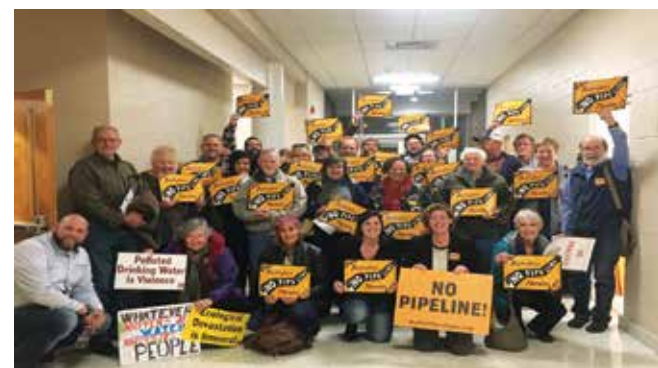
Robeson County is also the projected terminus for the 600-mile Atlantic

Coast Pipeline. The Piedmont liquefied natural gas facility would be independent from this pipeline.

Piedmont also wants to build two side-by-side 5-mile long pipelines connecting the facility to existing infrastructure. The pipelines would cross wetlands and waterbodies and impact several families along the route. Piedmont has applied to the N.C. Department of Environmental Quality for a water quality permit.

After the march, citizens held a "Celebration of Our Sacred Lands and Waters" at Oxendine Elementary School. More than 20 organizations including Appalachian Voices, the environmental organization that publishes this newspaper, co-sponsored the event, and more than 100 people came from across the state to hear local organizers and landowners who live along the route of the proposed pipelines speak about the impacts to the nearby community.

Roughly two dozen North Carolina residents attended a N.C. Department of Environmental Quality public hearing in Rockingham County to oppose a water permit for the MVP Southgate pipeline. Photo courtesy of Caroline Hansley



## Kentucky Agency and Conservationists Fight Proposed Gas Pipeline

By Kevin Ridder

A months-long legal battle between utility Louisville Gas & Electric and Bernheim Arboretum and Research Forest, a nonprofit nature preserve, ramped up in the fall. The fight centers around the monopoly utility's plans to build a 12-mile long gas pipeline that would cross three-quarters of a mile of the forest through an existing easement for power lines.

In September, the utility sued the state in an attempt to overturn a conservation easement using eminent domain. The Kentucky Energy and Environment Cabinet requested in November to have the case thrown out, arguing that LG&E did not attempt to buy the easement first. The utility previously sued Bullitt County landowners, Bernheim and the Kentucky Heritage Land Conservation Fund Board, the state entity that holds

the easement. LG&E's eminent domain lawsuits were ongoing as of press time in early December.

Environmentalists are particularly concerned about LG&E's unprecedented efforts to terminate conservation easements.

"This is new and this is potentially a very bad precedent," Don Dott, president of the Kentucky Land Trusts Coalition, told WFPL News Louisville in October.

Bernheim purchased the 500-acre area containing the pipeline crossing in 2018 to serve as a wildlife corridor and to protect endangered species such as the Indiana Bat.

LG&E states that the pipeline is needed to supply growing demand in the area, which it argues has surpassed current natural gas capacity. The utility is still missing several state and federal permits for the pipeline.

## Mountain Valley Pipeline Ordered to Halt Work

By Kevin Ridder

Pipeline resisters won significant battles in the fight against the fracked-gas Mountain Valley Pipeline in October.

Further delays on the project have caused developers to once more increase the projected cost and push back their expected completion date. Originally expected to be finished in 2018 and cost \$3.7 billion, Mountain Valley Pipeline, LLC, has delayed its timeline to the end of 2020 and revised cost estimates to \$5.5 billion.

On Oct. 15, the Federal Energy Regulatory Commission ordered a halt to construction along the entirety of the pipeline's 303-mile route. FERC's order was in response to the project losing key Endangered Species Act permits, and it allows the company to do only the work necessary to stabilize the right-of-way in previously disturbed areas.

While environmental groups applauded this action, they also criticized FERC for not going far enough. The agency is allowing Mountain Valley Pipeline developers to define

for themselves what they consider "stabilization," meaning the pipeline company could continue to undertake construction activities by claiming they are necessary for stabilization.

Citizen water monitors with the grassroots network Mountain Valley Watch reported seeing increased rates of sedimentation near MVP worksites after heavy rains in early December, raising questions about the effectiveness of the stabilization measures.

FERC's stop-work order followed a federal appeals court decision to suspend two U.S. Fish and Wildlife Service permits that had allowed Mountain Valley Pipeline developers to harm the habitat of threatened and endangered species. The court decision stems from a legal challenge filed by Sierra Club attorneys on behalf of seven conservation organizations, including Appalachian Voices, the environmental organization that publishes this newspaper.

In October, Mountain Valley Pipeline developers signed a proposed agreement to pay the Commonwealth of



Above, heavy rains on Dec. 1 overwhelmed Mountain Valley Pipeline erosion control measures near Elliston, Va. Photo courtesy of Mountain Valley Watch. At right, a pile of sediment control materials on the side of a steep hill near the same site on Nov. 27. It is close to a tree-sit where pipeline protesters have blocked construction for more than 450 days. Photo courtesy of Appalachians Against Pipelines



Virginia \$2.15 million for environmental violations that caused significant erosion and water pollution in 2018. Under the draft settlement, developers would be required to submit to court-ordered and supervised compliance with best management practices as well as the implementation of independent, third-party monitoring. The agreement would resolve a December 2018 lawsuit brought by the state against the pipeline company.

## Significant Day in Court for Buckingham Advocates

By Kevin Ridder

A legal challenge against Dominion Energy's proposed Buckingham compressor station is moving forward.

On Oct. 29, an attorney for Virginia's State Air Pollution Control Board admitted that Union Hill is a majority African-American community — bringing into question whether the commonwealth sufficiently evaluated environmental justice concerns when it approved permits for a massive fracked-gas compressor station there for the Atlantic Coast Pipeline. The acknowledgement came during a line of questioning in front of the U.S. Fourth Circuit Court of Appeals over air quality permits issued in January.

University of Virginia anthropologist Lakshmi Fjord led a study released in 2018 which found that within a 1.1-mile radius of this proposed compressor station, more than 83 percent of households are people of color, 33 percent are descendants of freedmen, and the numbers of elderly and the very young

are disproportionately higher than other age groups. It is the policy of the Commonwealth of Virginia to ensure that the development of new energy resources does not disproportionately impact disadvantaged or minority communities.

Virginia has previously relied on data provided by the state Department of Environmental Quality that did not recognize Union Hill's status as an environmental justice community — which residents stated was based on flawed methodology. The board approved the compressor station in January after reviewing the DEQ's information.

Attorneys representing community group Friends of Buckingham and environmental groups also argued that Virginia never considered using electric motors instead of gas turbines to power the compressor station, which would decrease air pollution.

While the fate of the Atlantic Coast Pipeline and the communities in its path remains uncertain, the day in court was

significant for impacted residents. A spokesperson for the Southern Environmental Law Center, a nonprofit law firm representing Friends of Buckingham, stated that a decision on the compressor station air permit is expected in 2020.

"I thought it was great, great, great," John Laury, an African-American resident who lives about a mile from the site, told the Richmond Times-Dispatch. "They cut through a lot of the rhetoric we have been listening to for approximately five years."

### Atlantic Coast Pipeline

Construction is still stopped along all of Atlantic Coast's route, including in the Monongahela National Forest, the Appalachian Trail crossing in the George Washington National Forest, and the Blue Ridge Parkway crossing. In December 2018, the Fourth Circuit Court of Appeals ruled that regulators did not have authority to give Atlantic Coast developers rights-of-way.

In June, the U.S. Solicitor General and Atlantic Coast developers asked

the U.S. Supreme Court to hear the case, and the Supreme Court agreed in October. The court scheduled oral arguments for Feb. 24, 2020.

In November, an independent investigation instigated by the Republican-led North Carolina General Assembly found that Democratic Gov. Roy Cooper had misused his authority and influence during the Atlantic Coast Pipeline permitting process to request pipeline developers to create a \$57.8 million environmental mitigation and economic development fund. The investigation stated that Cooper did not personally benefit from the agreement.

The Raleigh News & Observer reported that N.C. Republicans suggested pipeline developer Duke Energy had to jump through unnecessary hurdles to obtain permits for the 600-mile fracked-gas pipeline. The governor's office, on the other hand, told the publication that the investigation was a "sham."

The investigation reportedly cost North Carolina taxpayers \$83,000.

## Threats to the Tree of Life

Magnificent, strong and once thriving in Appalachian forests, oaks now struggle to regenerate. As deadly diseases spread in other regions, a new alliance is emerging to protect this key species.

By Eliza Laubach

Tree of life: the iconic Celtic image likely depicts an oak tree, a food producer for animals and humans alike in protein-rich acorns. The tree of diversity: 450 to 600 species occur worldwide, depending on classification, as oaks easily hybridize. North America is an oak biodiversity hotspot with at least 220 species, the majority of which grow in Mexico. In Appalachia, about a dozen different oak species are found in various habitats.

These prominent trees have helped to shape culture, diet and ecosystems across the world, yet are facing significant threats to their ability to thrive. Today, oaks are struggling to regenerate, and diseases spreading in the West and Midwest could bring ecological devastation if they take root in Appalachia.

Humans have a long relationship with these mighty trees. The Cherokee language has separate words for white oak, pronounced "tsu-s-ga," and red oak, "a-da-ya." "Oak" is derived from similar-sounding words shared among many ancient Indo-European languages, and proto-Germanic "eiks"



A live oak on the West Coast shows signs of sudden oak death. Photo by Joseph O'Brien, USDA Forest Service, Bugwood.org

gave birth to the word used today.

White oak is a traditional basket-making material for the Eastern Band of Cherokee Indians, the wood being pliable enough to splint into weavable strips. A vital food source, indigenous people of North America ground acorns into flour, and the Cherokee extracted oil from them, "as sweet as that from the olive," F.H. Harris wrote in 1937. Acorns have replaced the blight-stricken and nearly extinct American Chestnut as primary forage for mammals and large birds in Appalachian forests.

Oaks also support hundreds of species of insects, who reside at the base of the food pyramid. Giving food, shelter and habitat to countless species, oaks play a key role in the ecosystem. Now, researchers and foresters are working to protect these critical trees and help them thrive in today's changing forests.

### Struggling to Regenerate

In 1935, the U.S. Forest Service enacted a policy of extinguishing wildfires in publicly owned lands within 24 hours. Around the same time, eastern forests were recovering from a legacy of clearcut logging practices. Oaks have adapted with fire and mild disturbance. Only shade-tolerant in their early years, fire-resistant oaks depend on burns to clear understory plants and to dry the soil as they grow. Moisture-loving tulip poplars and maples regenerate quickly after clearcutting, growing up into a canopy before slow-growing oak saplings have a chance.

Andy Tait, forestry director of Ecoforesters, a forest management nonprofit based in Asheville, N.C., has worked in about 100 different forests in Southern Appalachia.

"It's a safe bet that there are oaks in the overstory 60 to 100 years old, but in the understory there is a dearth of oak regeneration," says Tait.

As Appalachian forests mature without oaks entering the canopy, the composition of many oak forests is changing, says Tait, with more mois-



An oak in Texas is stricken with oak wilt, above. Photo by Paul A. Mistretta, USDA Forest Service, Bugwood.org. At right, an oak tree witnesses sunrise in the Blue Ridge Mountains. Photo by Meredith Shelton



ture-loving plants proliferating.

Adding pressure are alcohol connoisseurs' rapacious desire for oaken drink. White oak, historically popular for furniture making, is the chosen lumber of the booming whiskey and wine barrels industry.

A German forestry practice called "femelschlag" might help. Femelschlag, which translates to "group cuttings," mimics the natural process of a large tree falling down in a forest by making several harvests over three decades in an expanding radius, thus making edges of open light in the canopy.

"Oaks are goldilocks that like a little bit of sun, not a lot," says Tait.

At the Bent Creek Experimental Forest near Asheville, N.C., U.S. Forest Service researchers are one year into a femelschlag experiment. Research forester Tara Keyser is excited about this practice adding to the tools used in managing oak systems such as controlled burns and herbicide use. But, as Keyser says, it takes a few decades to see results in the forest. She will be retired by the time the femelschlag experiment is finished.

### Diseases Approach

With researchers and foresters just beginning to understand how oaks regenerate in Appalachia, those in other regions warn of a foreboding story of the oak's future: microorganism pathogens that, once taken hold, cannot be stopped. These microorganisms are responsible for sudden oak death and oak wilt.

Sudden oak death is caused by a water mold pathogen that spreads

through water, and has killed oaks across California and southern Oregon. The pathogen affects some plant families without killing them, granting covert access at nurseries. In California, where millions of oaks have died, the disease spreads through the canopy, but does not kill a tree unless it finds a wound in the trunk.

Oak wilt is a fungus that disables the tree's water-transporting function and causes leaves to wilt and fall. Spread through interconnecting roots, a native beetle, and human movement of infected wood, the disease extends across the Upper Midwest and central Texas, and has been sparsely recorded in Central and Southern Appalachia. It kills red oaks within a year, while white oaks die more slowly.

Ryan Huish, a biology professor who studies human-plant relationships at the University of Virginia's College at Wise, is concerned with what he considers could be the next chestnut blight.

There are Eastern locations where the sudden oak death pathogen has been found but likely contained in nurseries. No confirmed cases exist of an oak dying from the disease in the East, according to Huish. Ed Burlett, southwest regional

## Tree of Life

Continued from previous page

supervisor at the Virginia Department of Agriculture and Conservation, surveys nursery plants annually for sudden oak death, especially when nurseries order plant stock that could carry the disease. Nurseries that order rhododendrons, camellias or any of the many possible host plants from the West Coast risk spreading it in the East.

In Virginia, there has not been any sudden oak death detected since 2015 — but in 2019, nursery shipments with infected rhododendrons landed in Rural King and Wal-Mart stores in West Virginia and Tennessee. Annual surveys currently being conducted will confirm whether the disease is contained within the nurseries. Burlett occasionally conducts outreach education to those in the nursery trade, and encourages buyers to be vigilant in sourcing local plants as well.

While Huish hypothesizes that the general health and integrity of Appalachian forests have kept these pathogens at bay, he is uncertain about the future. Along with logging, the stress of a changing climate and erratic weather patterns combined with increased fragmentation and disturbance of forests make Appalachian trees more susceptible to blights and pests, as seen with the American chestnut and Eastern hemlock.

Witnessing a massive die-off of mountain ash trees due to the emerald ash borer, Huish felt "a call to prevent a similar fate for the oaks." But he knew tackling this work was much more than what a lone researcher in Southwest Virginia could undertake.

To prepare, Huish is forming the Oak Conservation Alliance with a network of researchers, non-governmental organizations, educators, foresters, hunters and concerned citizens to monitor Appalachian forests and learn from other regions.

One important ally is the Morton Arboretum in northern Illinois. A hub for tree research, scientists at the Arboretum's Center for Tree Science are building webs of resilience, such as founding transnational oak conservation networks and connecting research across the globe.

"It's important to understand what trees are doing now," says Chuck Cannon, director of the Center for Tree Science. He oversees research on oak wilt-infected trees in Illinois, and is helping to write proposals to connect

different regions into a sort of "sentinel network." Studying the submerged, underground root system, which is how trees communicate and also how these diseases can spread, requires more technology than what is available.

"These regional networks are key to diagnosing and preventing in the early stage," says Cannon. "Because if we wait too long there's not much we can do."

Huish envisions the alliance with three main branches: forest monitoring, pathogen research and human connection. Monitoring is vital in this current stage, as early detection leads to successful eradication, according to Burlett with the Virginia Department of Agriculture and Conservation. Drone and satellite imagery can determine which plants are stressed in a forest, as they emit certain stress chemicals indicating specific pathogens, giving a new view of the vast public and privately owned forests of the Southeast.

Huish is working with three partner organizations to develop methods for community members to take part in monitoring efforts. The alliance is creating a section on the citizen science app iNaturalist to upload data on infected oaks. Depending on funding, testing kits for sudden oak death may be available to confirm reports and differentiate from other stresses and pathogens that can look like the disease. Huish fears that it has taken hold but no one is noticing it.

The human connection contains vast potential in Huish's mind, as acknowledging oaks' contributions to a sense of culture and place is vital, he says. Education and citizen science among interdisciplinary groups, from indigenous peoples to schoolchildren, is the strength of the alliance, according to Huish. He is talking to local mountain musicians about writing songs lamenting the chestnut loss and its impact on culture. Creative, theatrical productions are on his mind as well.

"One of the goals is to show this web of connections," says Huish, to "help us justify why and how we need to protect the oaks." ♦

*The Oak Conservation Alliance is gathering funds and forming partners. Email Ryan Huish at rhh5b@uovawise.edu if you are interested in taking part in this oak research, monitoring and education. In 2020, Huish plans to host community forums across the region to train citizen scientists in monitoring oaks. Dates will be posted at [appvoices.org/calendar](http://appvoices.org/calendar).*

## Nutty Buddy Collective

Eating native food is Bill Whipple's mission in Asheville, N.C. He and fellow tree orchard enthusiasts started the Nutty Buddy Collective, focused on re-wilding popular cuisine. With subsidized, commercial agriculture being a major contributor to greenhouse gases, says Whipple, "we really need to rethink about where we get our food."

The collective gathers acorns, black walnuts and hickory nuts in mowed fields and urban areas and then processes them into flour, crackers and oil as part of the Acornucopia Project. Oaks are what made humans clever, Whipple contends, as he thinks that the complex process of leaching tannins and grinding acorns to access their nutrients helped ancient human-



Acorn oil from the Acornucopia Project.

oids transition away from eating sticks and leaves, thus developing their brains.

Whipple campaigns at farmers markets and the local food co-op to cultivate a taste for wild nuts in the local market, in an effort to eventually convince farmers at large to incorporate native nut trees in cow pastures, or replace corn and soy crops with walnut and oak orchards. Not only are trees an appropriate companion plant for pastures, according to Whipple, but clear pastures are perfect for gathering nuts.

"Every piece of corn that someone doesn't eat because of eating acorn is a step in the right direction," says Whipple. "If we humans value oaks then we'll take better care of them." ♦

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# Shape-Note Singing

A living tradition of musical and social harmony

By Rachael Kelley

As a tradition practiced since 1801, shape-note singing is one of the oldest forms of music in the United States. Rooted in the rural South, it thrived during the 19th century as a form of education and socializing. Today, it persists in Appalachia and across the world.

Shape-note singing, sometimes referred to as Sacred Harp, originated from an Italian 11th-century system that uses syllables like “fa,” “sol,” and “la” to teach musical scales. Instead of writing music with classic oval-shaped note heads, the system uses different shapes — a triangle for “fa,” an oval for “sol” and so on — to indicate each note’s pitch. This helps singers easily sight-read and learn new pieces of music.

In the fledgling United States, the gospel tradition prospered first in New England, but its popularity shifted to the South in the late 19th century. Shape-note singing schools and churches taught either the four-note “fa so la” scale or the seven-note “do re mi” scale.

At a shape-note singing, the room is divided into four groups that face inward to form a hollow square. Shape-note singing uses no instruments. Each section is assigned a different melodic line, and the leader stands in the middle. First, everyone learns their parts by singing the note names, like “fa,” “sol,” “la,” and “mi,” instead of words. After singing the notes, the four parts join and sing the words together. The harmonies layer and fill the room with a sound singers describe as unique and powerful.

According to Ben Fink, co-founder of the annual weekend-long East Ken-

tucky Double All-Day Singing, the Appalachian region is a key part of the musical tradition’s history.

“It basically got pushed further and further down the Appalachian chain until it took root and never left in the southernmost mountains,” he explains. “The Appalachian mountains, in the broad sense, have been a home and location for this music for a long time.”

Fink states that the current practice of shape-note singing is not an act of preservation. Rather, it is the practice of something alive, well, and meaningful to its community.

“We’re not standing outside of it and trying to preserve it. We’re inside of it, and we’re doing it,” he says. “It’s a living tradition.”

Though many shape-note singers receive the tradition from older generations, others discover it on their own. Classical music was the family practice for Randall Webber of Louisville, Ky., but after coming across a copy of the songbook “Southern Harmony” about 12 years ago, he started composing shape-note songs. Groups in the region have sung his pieces for the past decade, and a few of his songs are being considered for the upcoming edition of the songbook “The Sacred Harp.”

“Of course it’s fun having other people and players sing what you’ve written,” Webber says. “You get to meet people. It’s sort of like an extended family.”

For Fink, that family is constantly growing. After moving to Kentucky in 2015, he and a few others began organizing regular singings throughout Letcher County. In 2017, they hosted the first annual East Kentucky Double All-Day



Letcher County, Ky., is home to the annual East Kentucky Double All-Day Singing weekend. In 2019, participants sang from “The Sacred Harp” on Saturday and from “Sacred Selections” on Sunday. Singers also visited local restaurants, churches and community centers. Photo by Malcolm J. Wilson

Singing weekend. During the event, singings are held throughout the day on Saturday and Sunday. The weekend also includes cultural events, such as dinner and music at the Carcassonne Square Dance. Singers also attend the annual communion service at Defeated Creek Old Regular Baptist Church and participate in a lined-out singing. Still practiced in Kentucky, this centuries-old tradition features a group repeating lines first sung by the leader.

“The fundamental virtue of shape-note singing is hospitality,” Fink says. “We like to provide as much first-hand opportunity to get to know the people and places here as we can.”

In 2019, the weekend was attended by more than 50 singers representing 13 states and two other countries. The 2020 annual singing weekend is scheduled from Aug. 8 to 9.

Shape-note singing also offers a way for students to connect to Appalachian culture. In the Bluegrass, Old Time, and Country Music Studies program at Eastern Tennessee State University, participants in a new shape-note singing course learn about both music theory and regional culture through experience.

Lecturer Kalia Yeagle was eager to direct the course, and she remarks that it has been a highlight of the semester.

“This class is a cool way for my students to dig into a tradition that has some sort of relevance to this area,” Yeagle says. “In teaching ourselves to shape-note sing, we’re inherently learning about cultural heritage.”

Though shape-note singing is prevalent in East Tennessee, Yeagle explains

that there was not a concrete opportunity for most students to learn about it. However, increased student interest in the tradition inspired the music studies program to design a course for students to learn and sing shape notes together. Some days, they open the classroom and invite others to join their singings.

Shape-note singing also acts as a metaphor for unity, according to University of Kentucky Professor Emeritus Ronald Pen. He taught Appalachian Music for 30 years and founded the John Jacob Niles Center for American Music. He also helped establish the Appalachian Association of Sacred Harp Singers in Lexington, Ky.

“It’s a way of bringing four different, very independent melodic lines together,” Pen explains. “What we’re really talking about is musical harmony creating social harmony.”

He explains that though shape-note singing was designed to teach people how to sing, it also served as a way for communities to socialize. Today, technology can interfere with how humans connect, but shape-note gatherings still allow people to join together and actively participate in music-making.

“When you come together to sing shape notes, you’re sharing something with people in a real, active way,” he says. “Music that springs from the soil, that’s tied closest to the earth at hand, has the most power to move us. And Sacred Harp is that music.” ♦

To learn more about the East Kentucky Double All-Day Singing weekend, contact Ben Fink at (612) 840-0141 or ben.fink@gmail.com.



Triangles, ovals, rectangles and diamonds are used in the four-note “fa so la” scale. The most popular shape-note songbooks, “The Sacred Harp” (1844) and “The Christian Harmony” (1867), used four- and seven-note scales respectively.

# Hip Hop in Appalachia

Several artists share their experiences



By Hannah McAlister

Hip hop may not be the first genre that comes to mind when people think of Appalachian music, but the region’s scene has been growing for decades, largely due to the groundwork laid by pioneering artists. These artists not only built a rap scene in the area, but addressed local topics that give the listener a personal connection to the music.

One of those artists was Eric “Monstalg” Jordan, who was introduced to the music through his breakdance crew in Morgantown, W.Va., in the early eighties. He grew up in West Virginia and moved around the state and nearby Maryland attending college, where he began rapping and creating music with young producers in the area such as DJ ProFaze.

“The way that he was finding samples and digging bits and chopping them up, that really intrigued me because I always felt like I had an ear for music,” says Jordan.

In the early nineties, he left West Virginia to work as a full-time musician and producer in major cities, collaborating with famous artists.

In 1999, during the rise of independent hip hop labels, Jordan returned to Morgantown, W.Va., to work on building the local rap scene. He joined his brother Lionel, who went by the name 6’6 240, in creating Soundvizion Record Label. The brothers formed their own group, 304 Reconz, a reference to their West Virginia area code.

“What we noticed was, these kids down here, they all gravitated to artists they had no connection with,” says Jordan. “Someone in New York, someone in Louisiana, someone in LA. We wanted to give these kids something that’s theirs.”

West Virginia’s hip hop pioneers like Jordan helped pave the way for future artists like Dinosaur Burps and Feenyx.

B. Rude of Charleston, W. Va, began recording music in the early 2000s and currently performs with Dinosaur Burps, a collaboration between DJ Sqweazle and producer Kroosh Dog. The name is an inside joke that pays homage to the group’s late friend and fellow artist Meuw1.

Also hailing from Charleston, W.Va., is Feenyx. Formerly known as Beatty, he has been writing and recording hip hop music since he was in fifth grade.

In 2014, his song “West Virginia Water” gained attention as a response to media coverage of that year’s Elk River chemical spill. Beatty brings up the “struggle to survive” at the time. The lyrics ask the listener “what’cha know about bottled water baths?” and comments “on the news, voted most miserable should’ve been most abused.”

Following the release of that song, he moved to Atlanta and rebranded himself as Feenyx, to symbolize his rebirth as an artist.

Each of these West Virginia artists have experienced the region’s hip hop scene differently.

“We knew the obstacles and we wanted to overcome it,” says Jordan of performing in the early 2000s. “We’re doing hip hop in West Virginia. It doesn’t even roll off the tongue right. We really made an effort to having a hip hop music scene in West Virginia. But in our time, it was understood that Morgantown, Charleston and Huntington had to work together.”

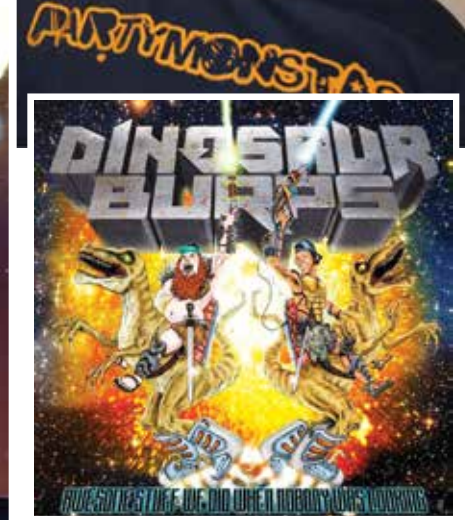
B. Rude of Dinosaur Burps states that there are many talented hip hop artists in the area and at least one rap show a month in every major city in West Virginia.

“Although Appalachia isn’t really known for hip hop, we’ve been playing all over the region for years and it’s almost always love,” he says.

Feenyx left West Virginia in 2014 in search of better opportunities. He sees his new home of Atlanta as the hub of hip hop music and is looking forward to dropping singles in 2020. In the years prior to his move, Feenyx went to audio engineering school. Now, as an intern at 11th Street Recording Studios, he works around major artists and Grammy-nominated engineers and producers.

“It’s not like it couldn’t happen in West Virginia, it’s just that I was unfamiliar with that,” says Feenyx. “Being so small and the demographics of Charleston and in West Virginia, hip hop and rap at the time wasn’t widely accepted.”

All of these artists aim for their lyrics to lift people up, whether that be through



Clockwise from above: DJ Monstalg, also known as Eric Jordan, with a music controller. Photo provided. Dinosaur Burps’ 2014 release, album art by Chris Woodall. The artist geonovah performs in Johnson City, Tenn. Photo provided.

topics of state pride or self development or by making the listener laugh.

The first two albums by 304 Reconz dealt with local happenings and songs paying homage to West Virginia. Jordan recalls having fans come up to them and saying that their music had boosted their self-esteem. “We saw the importance and impact of our music and it was a cool thing,” he says.

“We had something special back then and I think we took it for granted,” Jordan continues. “Whether you made it or not, it was still a group of y’all trying to do something positive and that was pretty cool. We weren’t just making mu-

sic. It was a little bigger than just music.”

Originally from Big Stone Gap, Va., but now residing in Johnson City, Tenn., geonovah’s lyrics revolve around self development, his experiences, his family, leaving his hometown and getting older. He says he likes to write about the future and how it could be better.

“I want to help the people that don’t really know how to help themselves or they don’t know how to believe in themselves,” says geonovah.

Since his move to Tennessee, geono-

Continued on page 13

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# Making Music

Meet several artisans creating hand-built instruments



By Hannah McAlister

In Appalachia, stringed instruments are closely tied to the traditional bluegrass music the region is known for. The word “luthier” refers to someone who builds or repairs stringed instruments, and comes from the French word

## Jayne Henderson

Jayne Henderson made her first guitar to help manage student loan debt after obtaining a degree in Environmental Law and Policy from Vermont Law School. Her father, acclaimed luthier Wayne Henderson, agreed to help her if she would come to his shop and do the work herself.

“I thought it’d be terrible but it was so much more fun than I ever expected,” says Henderson. “I got to hang out with my dad and understand why he loves being out in the shop so much. It was one of the best things that I’ve ever gotten to do.”

After selling her first instrument, Henderson made another while com-

pleting an AmeriCorps service term with an environmental organization in Asheville, N.C. Then, Henderson convinced her organization to give her time off to build a third guitar, under the condition that she donate the proceeds to their Riverkeeper program. This was the first with her name on the headstock and was made from local materials.

Henderson was hooked. In 2011, she opened EJ Henderson Guitars and Ukuleles and began pursuing instrument-building full time.

Henderson strives to make guitars in an environmentally conscious way. She prefers to use local, thoughtfully harvested woods with similar characteristics to more popular, exotic woods,

such as Brazilian rosewood and mahogany, which have been over-harvested. “In that way, I can at least get people thinking that we need to conserve our resources,” says Henderson. “I don’t push it hard but that’s what I do. I make smaller-body instruments that use more scrap wood. My favorite woods to use are oak, ash, maple and walnut, and they sound just as good as mahogany or rosewood, if I manipulate the materials.”

These days, Henderson has a multi-year waiting list. When she’s building for a client, Henderson is all about building a relationship with them.

## Mac Traynham

Mac Traynham first became interested in handmade instruments in the mid-70s when he commissioned a banjo and guitar.



Mac Traynham plays banjo #118 outside his shop. Made of local and exotic woods and featuring handcut inlays, this instrument is available for purchase. Photo by Hanna Traynham

That guitar was renowned luthier Wayne Henderson’s number 31; Henderson has now made more than 700. To this day, Traynham cherishes the instrument.

Traynham began visiting the shops of luthiers such as Henderson, the late fiddle-maker Albert Hash and the late banjo-maker Kyle Creed. In 1978, with the help of a Vermont luthier, he made his first banjo with a neck of birdseye maple that he obtained from an old door.

After that, Traynham had his first order, which he made at the luthier’s shop in Vermont. He moved to Grayson County, Va., and in 1984 opened an official shop, which has been located in Willis, Va., since 2000.

At first, he worked as a cabinet-maker, with banjo-making as a side business. Banjos went on the backburner due to family life, but became more of a priority after his children finished high school in the mid-2000s.

Traynham says he typically works on two or three banjos at once, using a combination of wood machines and hand tools. Most of the neck shaping, inlay work, and final sanding and



Jayne Henderson plays one of her handbuilt guitars. Photo by Kate Thompson/Betty Clicker Photography

shaping he completes by hand.

Traynham says he finds each part of the building process equally interesting. “I get excited about it when I see a board that’s got some pretty figure in it,” says Traynham, stating that he still thinks birdseye maple is the prettiest wood.

“Maple, cherry, walnut, dogwood and sycamore have aspects about them that are different from each other but they’re all good for one reason or the other,” says Traynham, explaining that it can take some experimentation to find what sounds best.

For the fingerboard material, Traynham tends to use more exotic woods like rosewood or ebony, although he’s



This headstock of a cello banjo displays custom inlay art by Mac Traynham.

conscious of the negative environmental impact of using rare rainforest wood. He seeks out repurposed rosewood that was cut down decades ago. Wary of contributing to the destruction of the rainforest, occasionally he uses a recycled paper product that works like wood, known in the luthier community as Richlite.

In 2010, Traynham’s apprentice, Robert Browder, wrote a book titled “BanjoCraft.”

“Since then, a lot of people have said that they’ve read that book and it helped them get where they want to start trying it themselves,” says Traynham. “So I have a hand in inspiring some of the young people.” ♦

“I love to get to know [the client], their background and a little bit about them so I can get a taste of their personality,” says Henderson, “Then, I go through and I check wood. I decide what is going to go best for them, their personality, whatever their playing style is.”

Henderson adds herself into her pieces by doing creative inlay design by hand.

“It’s really important for me to see people open the case to see the thing that I made for them, and see that reflected in their eyes and to hear them play it, and see the joy that it brings,” says Henderson. ♦

# Luthiery school opens manufacturing facility to provide economic opportunity

People from around the world come to the Appalachian School of Luthiery in Hindman, Ky., to learn the craft of instrument-building. The school is part of the Appalachian Artisan Center, a nonprofit organization that helps develop the region’s art economy.

The school’s head luthier, Doug Naselroad, recently co-founded Troublesome Creek Stringed Instrument Company. The nonprofit company plans to become commercially sustainable by manufacturing high-end custom

guitars, mandolins and mountain dulcimers while helping local people earn a livelihood through luthiery skills.

In February 2019, the federal Appalachian Regional Commission announced a \$12 million investment for addiction recovery and workforce development in Kentucky’s Appalachian counties, including more than \$867,000 for Troublesome Creek.

Appalachian School of Luthiery staff serve as the company’s workforce development arm and the Eastern

Kentucky Concentrated Employment Program is providing financial assistance for training, which requires school tuition. The six-month program combines digital fabrication with old-world hand skills.

Troublesome Creek is also partnering with Hickory Hills Recovery Center and Knott County Drug Court to engage with people who are recovering from addiction and are interested in luthiery.

In an area that contains some of the poorest counties in the United States,

Naselroad’s goal is to produce high-paying and highly skilled jobs, with seven of those paid instrument-building positions currently filled. He also plans to support local businesses by utilizing Appalachian hardwoods such as black locust and red spruce.

“These Appalachian trees produce some of the best tone wood in the world,” said Naselroad in an interview with The Daily Yonder. “They really make beautiful, resonant instruments.”

— By Hannah McAlister ♦

## John Hollandsworth

John Hollandsworth began playing the autoharp at the age of 6 with family in Southwest Virginia. As he grew older, he found it difficult to find someone to work on his instrument, so he decided to teach himself. When other players learned of his skills, they began to bring their instruments to him for repairs and modifications.

Hollandsworth’s lifelong interest in woodworking, as well as his dissatisfaction with factory-made autoharps, led him to build his first autoharp for himself in 1989.

“I kept seeing problems — the same type of problems, bad glue joints or other construction problems — that caused failures,” says Hollandsworth. “It was one of those things where I knew, from looking at it, things not to do.”

Shortly after, Hollandsworth was invited to play at the Mountain Laurel Autoharp Gathering, founded by master luthier George Orthey of Pennsylvania.

“I showed him the instrument that I made for myself and he thought it was pretty good,” recalls Hollandsworth. “He said, ‘You should really start making instruments.’”

Initially, Hollandsworth declined. But when his children were older, he decided to give luthiery a shot and Orthey took him on as an apprentice.

Hollandsworth recalls Orthey did not give him any patterns or information before he designed his first instrument. “I thought that was a really good idea because I don’t think anybody that builds things wants to copy something that somebody else is already doing,” he says.

In the early ‘90s, Hollandsworth



John Hollandsworth with one of his handcrafted autoharps. Photo by Holly Towne

opened his own shop, Blue Ridge Autoharps, in Christiansburg, Va. Each autoharp he builds reflects the buyer’s preference of woods, set-up and chord arrangement. His autoharps can now be found throughout the United States and in 10 different countries.

Making instruments was not his main profession, but now that he is retired, he dedicates more time to his shop and his waiting list of orders, completing one or two autoharps a month.

Even though he is a master luthier, Hollandsworth says he is still learning from others in the autoharp community. “I think most people that build musical instruments really try to build an instrument that they enjoy the tone of,” says Hollandsworth. “You are always looking for the magic combination of wood and crafts to fine-tune the sound that you’re looking for. That’s the life-long goal. Nobody ever really achieves that perfectly, but the more instruments that you make the more that you learn about it.” ♦

## Hip Hop

Continued from page 11

vah’s style has evolved, partially due to the influence of Isaiah Rashad, an artist from Chattanooga.

“I was too busy trying to rap about things I thought people wanted to hear and then I just kind of discovered him and discovered my own way to say what I want to say” geonovah says.

According to geonovah, neither rap nor his style of “conscious hip hop” — a niche, less flashy style of rap — are the dominant styles of music in the area.

Dinosaur Burps, on the other hand, likes to keep things light.

“We’ve lived in the greater Charleston area for almost all of our entire lives, so we’ve had a healthy mix of urban and rural culture,” says the group’s B. Rude. Speaking of songwriting, he says, “It could go from things we’ve seen in the hoods to things we’ve seen in the woods. Partying, sci-fi, food and fantasy are all themes we stick to for the most part. We always try to put our own brand of humor on things, we like to joke and make people laugh, we want people to have a good time.” ♦

## Current Projects

- **Dinosaur Burps** is currently working on an album.

- In August, **Feenyx** released his latest album, “Flock With Me,” available on major music streaming platforms.

- **geonovah** released his latest EP, “Suburban Tapes Volume 1” in November on SoundCloud.

- **304 Reconz** has been on hiatus since 2012, but Eric Jordan still mentors upcoming musicians. He is the administrator for The Norman Jordan African American Arts and Heritage Academy, an arts camp that his father started, and maintains relationships with many former campers. In Morgantown, Jordan also hosts local open mic nights and producer networking events to give current artists a platform.

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# Seeking a Path to 100% Clean Energy

Localities across Appalachia and the nation have pledged to fully convert to green power — but restrictive policies and monopoly utilities are holding them back.

By Kevin Ridder

In December 2016, the town of Boone, N.C., became the first municipality in the United States to call for a nationwide transition to 100 percent clean energy. The town council voted unanimously on a resolution announcing their support for completely phasing out fossil fuels by 2050, citing a need to avoid human-caused climate catastrophe.

Since then, Boone has pledged to achieve climate neutrality for the town government by 2030 and to use only renewable energy by 2040, and has set a target for all of Boone to run on clean energy by 2050. The council also directed that all new town construction be carbon neutral.

Today, approximately 28 percent of the nation's population lives in a municipality, county or state that has committed to achieve 100 percent clean energy use by 2050 or earlier, according to the Sierra Club. Local governments like Boone are running into a variety of barriers to implementing clean energy policies that require finding creative solutions. But for many of these communities, it starts with outlining goals.

Boone's resolution and many others do not include a concrete plan to reach those climate goals, but the town's department heads meet regularly to discuss ways to become more sustainable, such as the recent switch to energy-efficient LED street lights.

"Unless you have a goal which has been adopted which you can reference, you don't have the underpinnings for any of the policy decisions to implement that goal,"



Morgantown, W.Va., installed 12 solar panels on the Farmers Market Pavilion, right, in 2013. Photo courtesy of City of Morgantown. Above, an LED streetlight in Boone, N.C. Photo by Kevin Ridder

says Boone Councilmember Sam Furguele.

But Boone still has a ways to go, according to newly elected Councilmember Nancy LaPlaca, who stated that the town currently runs on about 1 percent clean energy — the same amount as when the council passed the 100 percent clean energy resolution.

"Unless we change some things, we're going to get about as far as we got in the last few years," says LaPlaca.

She states that Boone should prioritize cutting the 80 percent of its greenhouse gas emissions that come from energy and transportation. LaPlaca adds that local utilities have very restrictive residential solar policies and source much of their energy from fossil fuels.

Town Manager John Ward states that he has talked with New River Light and Power, the town's electricity provider, about installing a solar farm outside of Boone that would provide between 200 kilowatts to 1 megawatt of power to the town. Ward is also looking to incorporate net metering in any upcoming contract with the utility. Net metering allows those with solar panels to receive bill credits for excess power they generate back to the grid, which makes solar more cost effective.

For LaPlaca, these types of projects are just the beginning.

"If we are going to reduce greenhouse gases by 50 percent by 2030 — what the [Intergovernmental Panel on Climate



## Clean Energy Pledges

- Green** = Statewide clean energy goal
- Red** = Town/city clean energy goal
- Yellow** = County clean energy goal
- Blue** = Signatory to Mayors' Climate Agreement
- Purple** = Signatory to Mayors' Climate Agreement AND has a town/city clean energy goal

Map by Marcie Hancock

Change] says we need to do — we need to reduce greenhouse gases by 6 to 7 percent from current levels every year, not just one year," she says.

## Policy Problems

Many localities are running into challenges similar to Boone's. Municipal governments often have long-term contracts with their utility providers that may limit their ability to access clean energy. In January 2019, the Central Appalachian Network — a coalition of environmental nonprofits, universities and consumer advocates including Appalachian Voices, the publisher of this newspaper — released a report outlining barriers to clean energy development in the region and ways to overcome them.

The barriers highlighted by the "Central Appalachia Clean Energy Policy Toolkit" include restrictive state and utility policies, politicians' ties to fossil fuel industries, monopoly utilities' resistance to change, lack of public awareness, and

more. The report lists several policy priorities to foster large-scale and home solar as well as increased energy efficiency.

Local leaders can advance solar in their community by pushing to get their municipality designated under the federally funded SolSmart program. Through this, local governments work with SolSmart advisors to ensure their policies are pro-solar, with the intent of attracting potential businesses. Eight Southwest Virginia towns, counties and cities achieved SolSmart designation in summer 2019.

"Many manufacturing companies are looking for communities and counties who are forward thinking, and having this designation just solidifies our commitment to our future," Lou Wallace of the Russell County Board of Supervisors said in a July press statement.

## State Plans

On Sept. 17, Virginia Gov. Ralph Northam signed Executive Order 43, which requires several state agencies to develop a plan by July 2020 to source 30 percent of Virginia's power from

Continued on page 16



## An Appalachian Solar Tour

In October, more than 400 homeowners and businesses across the United States welcomed the public to visit their solar installations as part of the country's largest grassroots solar event, the National Solar Tour. The tour is organized by the American Solar Energy Society and Solar United Neighbors, two nonprofit groups working to help people go solar.

The National Solar Tour shows how people are benefiting from producing their own electricity with solar energy in cost-effective ways. The cost to install solar fell by more than 70 percent over the last decade in the United States, according to the Solar Energy Industries Association, an industry trade group.

Presented below are stories from some of the Appalachian stops on the 2019 tour.

### Laurel and Anthony Flaccavento

In Abingdon, Va., Laurel and Anthony Flaccavento were motivated to install a solar array on their organic farm because it aligned with their value of preserving the planet and made financial sense. The 9.7-kilowatt ground-mounted system was installed by the company Ecological Energy Systems in 2016.

"I am saving an enormous amount of money every year through generating our own electricity," says Laurel Flaccavento. She expects the system to recover its cost within 10 years of its installation.



Solar panels now grace the roof of the Kuhre Center for Rural Renewal, a former coal company building in The Plains, Ohio. Photo courtesy of Rural Action



At left, Keenan Phillips stands by the ground-mounted solar panel system that powers his off-grid home. Above, Laurel Flaccavento discusses her family's solar installation with visitors during the National Solar Tour. Photos provided.

The installation process for the Flaccaventos' solar system involved sealing the house for energy efficiency and receiving several cost estimates from installers. The family's other sustainable living habits include driving a fuel-efficient vehicle, using renewable geothermal heat for their house and growing clean food.

Laurel Flaccavento would like to install more solar, but Virginia regulations limit the amount of energy that grid-connected residential systems can produce to the amount used on the previous 12 months of the electric bill. Laurel Flaccavento adds that the cost of battery storage is not yet feasible.

"That rule or law needs to be changed," she says. "You should be able to generate as much solar as you want."

Laurel Flaccavento has several recommendations for people considering solar.

"I would say going with somebody local," says Flaccavento. "It's good for the local economy for one thing, but it's also, if anything does happen, you've got somebody right there. And, I would get estimates. At least two estimates." — *By Jack Singletary*

### Kuhre Center for Rural Renewal

Membership-based nonprofit Rural Action, a group that is working for sustainable economic development in the Appalachian Ohio region, had a 17.8-kilowatt rooftop solar array installed at the organization's headquarters in July 2019. The headquarters is known as the Kuhre Center for Rural Renewal and is located in a historic coal company building in The Plains, Ohio.

"Rural Action recognizes that solar is a key transition for our region, that as an organization we really want to walk the walk and not simply talk the talk about making that shift to clean energy," says Sarah Conley-Ballew, program director of sustainable energy solutions.

The organization worked with clean energy project developer New Resource Solutions to allow investors to own the grid-tied system. Then, Rural Action signed a power-purchase agreement, a financial arrangement that allows the organization to purchase the system's

output from the developer at a lower cost than their prior utility bills while paying off the system. This way, the project could benefit from the 30 percent federal tax credit since the owners of the installation pay taxes while the nonprofit is tax exempt.

The system was installed by Third Sun Solar, a company located in Athens, Ohio. — *By Jack Singletary*

### Keenan Phillips

Keenan Phillips of Burnsville, N.C., fabricated his ground-mounted off-grid system around 2014 after realizing that solar would be feasible and cost-effective for the house he built.

"Batteries can be a hassle, but I really like to tinker and mess with technology and learn stuff so that's what did it for me," says Phillips.

When Phillips calculated that the projected cost of his 981-watt solar system over 15 to 20 years was less than the prices offered by his local electric utility, he was happy to make the investment. It also helped that he had the know-how to connect nickel-iron batteries when his set of lead-acid batteries were destroyed in freezing weather.

Next, Phillips would like to replace the propane he uses for cooking with methane from food scraps by connecting an airless anaerobic digester with project designs by open-source platform Solar C<sup>3</sup>ities.

Phillips was able to reduce energy loss and the size and expense of components in his installation by using several direct current appliances such as a refrigerator that can be connected straight to the batteries with a breaker in-between.

"I would say, only for people who are looking at doing batteries, to at least thoroughly investigate the nickel-iron a.k.a. Edison battery," recommends Phillips, touting the battery's longevity. "I think it's a pretty amazing type of battery and technology."

Phillips also offers workshops on solar and DIY building. Visit his website at [ksphillipscontract.wixsite.com/website](http://ksphillipscontract.wixsite.com/website) for details. — *By Jack Singletary*

Continued on page 17



## 100% Clean Energy

Continued from center

renewable energy by 2030 and from 100 percent carbon-free sources such as wind, solar and nuclear by 2050.

But the order does not define “renewable energy,” which allows the state to include carbon-intensive biomass and trash incinerators as power sources. Nor does the order mention the Mountain Valley or Atlantic Coast pipelines (read more on page 6). If completed, these pipelines would carry heavily polluting fracked gas.

Later in September, North Carolina Gov. Roy Cooper announced the completion of a clean energy plan that sets a goal for a 70 percent reduction in greenhouse gas emissions below 2005 levels by 2030 and complete carbon neutrality by 2050.

This follows Cooper’s October 2018 Executive Order 80, which set a 40 percent greenhouse gas emissions reduction goal for state agencies by 2025 and established a council of state department heads to develop the plan. The Climate Change Interagency Council held several meetings across the state to collect local input and held a public comment period on the draft plan.

While the plan was met with applause from many environmental groups, protesters who felt it did not go far enough called on the governor to revoke permits for the Atlantic Coast Pipeline and to end large-scale deforestation that is supplying European biomass power plants. The plan acknowledges that both the Atlantic Coast pipeline and the more recently proposed MVP Southgate pipeline face “significant opposition from local communities and environmental groups.”

In September, Appalachian Voices’ Rory McIlmoil submitted a letter responding to the draft plan.

“We call on Governor Cooper and state government agencies to do more to ensure that rural areas in N.C. are set more squarely at the center of the final plan,” wrote McIlmoil. “If equity is a central focus of the plan, it can’t just be a plan for Duke Energy customers, for urban areas and for the affluent. But to achieve that goal, we need to address the significant barriers to expanding clean energy opportunities for rural and low-income communities.”

The state clean energy plan projects that under the current “business as usual” approach, natural gas would become North Carolina’s dominant electricity source as coal plants retire, preventing the state from meeting its 2030 goal.

The plan suggests enhancing North Carolina’s renewable energy portfolio standard, which requires utilities to produce a certain percentage of their electricity using renewables such as solar, wind and geothermal. Other solutions include accelerating coal plant retirements and increasing energy efficiency measures.

So far, 22 North Carolina communities including Asheville, Blowing Rock, Canton, Clyde and Macon County have passed resolutions calling for 100 percent clean energy, according to the nonprofit N.C. Climate Solutions Coalition.

Wake County, N.C., passed its resolution in October 2018. According to Wake County Commissioner Matt Calabria, people working in the public sector are enthusiastic to talk to other local governments about clean energy.

“Unlike innovations that are developed in the private sector, advances on the public sector side are readily and easily shared,” says Calabria. “Ultimate-

ly, elected officials throughout a region, a state, or even nationally are a community.”

“Other places like Apex, N.C., have passed similar resolutions since then, and part of that is inspired by what we’ve done in Wake County,” he adds.

North Carolina and Virginia aren’t the only states in the region with clean energy goals. In May 2019, Maryland Gov. Larry Hogan allowed the Clean Energy Jobs Act to go into law without his signature. The plan mandates that electric utilities in the state source at least 50 percent of their power from renewables by 2030, and for Maryland to come up with a plan to achieve 100 percent renewable energy by 2040.

### Slow Utilities

On June 1, 2017, President Donald Trump announced his intention to withdraw from the Paris Climate Accords, an international voluntary agreement to reduce greenhouse gas emissions to combat climate change. This led to a wave of localities pledging to stick to the terms of the agreement.

In August 2017, Morgantown, W.Va., Mayor Bill Kaweck signed on to the National Mayors Climate Action Agenda with the leaders of 427 other cities. Participants aim to meet the Paris agreement goals of reducing municipal greenhouse gas emissions by 26 to 28 percent by 2025.

James Kotcon chairs the Morgantown Green Team, the city’s volunteer environmental advisory board. In January 2019, the team completed a climate action plan outlining potential ways to reduce emissions. But working with the city’s utility Monongahela Power has been challenging.



A Virginia Energy and Sustainability Peer Network meeting in May. Photo courtesy of Carol Davis

“It’s been slow,” says Kotcon. “They’ll listen to us, but they don’t really respond; they say they’ll consider it, and not much has happened.”

Kotcon states that a major way Morgantown could reduce greenhouse gas emissions would be by replacing the city’s roughly 1,700 streetlights with LED bulbs. However, neither the utility nor the West Virginia Public Service Commission has an official rate structure for LED streetlights, making it difficult to accurately plan for project costs.

Monongahela Power has implemented a small pilot project of LED streetlights but has not prioritized a city-wide transition, according to Kotcon. He expects a rate charge for LED lights to be implemented within two to four years.

The Morgantown Green Team also suggested solar installations to reduce emissions. However, Kotcon states that the monopoly utility does not have effective net metering, and state law prohibits third-party power purchase agreements. These restrictions make

Continued on page 21

### Expand utility energy efficiency programs

Cities with municipal utilities can require the utility to offer energy efficiency initiatives, and local governments without municipal utilities can offer alternative programs such as rebates for weatherization measures. State policies like an Energy Efficiency Resource Standard can order utilities to save a certain amount of energy through efficiency.

### Expand Property Assessed Clean Energy (PACE) programs

PACE allows residential and commercial property owners to finance energy efficiency and renewable energy improvements.

Participants can repay qualified energy improvements over time through a voluntary property tax assessment collected by local governments, so the debt is associated with the property rather than an individual. Once state law enables PACE, local governments must implement their own programs. Georgia, Kentucky, North Carolina, Ohio and Virginia allow PACE, and these state programs are in various stages of development, according to nonprofit PACE advocacy group PACENation. To advance PACE programs in these states, the report suggests that rural counties engage with the U.S. Department of Agriculture. In states without PACE, the report suggests legislative advocacy.

## Solar Tour

Continued from center

### Lorenzo Rodriguez

In November 2017, Lorenzo Rodriguez of Big Stone Gap, Va., had an 8.84-kilowatt solar array with 31 panels installed on the roof of his house by solar company Sigora Solar. Rodriguez states that he installed the system to help protect the environment, be more energy independent and because it was financially feasible.

“For me, because it was more than just a dollar thing, I thought, if I could be breaking even but I am still saving the energy component, [by] being a little bit more green and not using as much [electricity from the grid], then why not?” said Rodriguez.

The installation was in part made possible by several financial incentives including the national 30 percent tax credit, which is scheduled to drop to 26 percent in 2020, 22 percent in 2021 and end in 2022.

Additionally, Sigora Solar offered an installation financing program that included no payments for 12 months, then a 25 percent down payment after Rodriguez received the 30 percent tax credit, followed by monthly payments for 20 years. While 20 years may sound like a long time, Lorenzo says he is still “breaking even.” His monthly electricity bills now come mostly in the form of the financing payments for the solar installation, which, during sunny months, are less than his previous utility bills.

Rodriguez also takes advantage of the net metering available with his electric utility, Old Dominion Power, to transfer credits for electricity from months when the system produces more than the house uses, to months, typically in the winter, when the solar installation does not meet all of the energy demands.

While net metering helps folks with solar, in 2019, Old Dominion Power filed a proposal with the Virginia State Corporation Commission to increase the basic service charge for residential customers by \$4.13 a month, and raise rates in a way that would increase average household monthly electric bills by \$28.93. Both could affect Rodriguez, but ratepayers without solar would see costs rise more. Environmental nonprofit group Appalachian Voices, the publisher of this newspaper, is intervening in the case, which will be heard by the



SCC in January 2020.

“I would do [a solar installation] now while you can maximize the tax rebate, because it was very useful. I can’t state that enough. So, why wait?” Lorenzo says, recommending that people “look for a company with financing options.” — *By Jack Singletary*

### People Incorporated

People Incorporated is deploying solar power to help lower electricity bills for economically disadvantaged individuals and families. As the largest community action agency in Virginia, the nonprofit organization helps with issues such as workforce training, child support and affordable housing. People Incorporated is also a part of the Solar Workgroup of Southwest Virginia, a coalition of solar energy advocates that includes Appalachian Voices, the publisher of this newspaper.

After a staff member suggested using renewable energy to lower their clients’ cost of living in 2011, the nonprofit launched a solar pilot project at the Clinch View Manor Apartments in Gate City, Va. A year later, People Incorporated received a \$1 million renewable energy grant through the American Recovery and Reinvestment Act, which they distributed to several projects.

About half of the grant went toward building geothermal installations for clients in Damascus, Va. Another quarter went to solar energy projects in Abingdon, Va., including building 32 solar hot water heating units at Abingdon Green Apartments in 2012. The apartment complex was featured in the solar energy tour to increase public exposure to solar installations in Washington County, Va.



Net metering allows Lorenzo Rodriguez, left, to send excess power from his home solar panels to the grid and to draw power from the grid when needed. Above, Mark Moormans of People Incorporated tells solar tour attendees about his organization’s work to bring the benefits of solar to low-income residents in Southwest Virginia. Photos by Austin Counts

A portion of the grant also funded solar panels at an affordable apartment complex, Dante Crossing Apartments, in Dante, Va. Mark Moormans, People Incorporated’s representative in the Solar Workgroup of Southwest Virginia, explains that the installation cuts the Dante residents’ utility expenses by 50 percent.

People Incorporated planned to install solar panels on affordable residences in Abingdon and Norton, but their progress was stopped by roadblocks from Old Dominion Power and Appalachian Power. These roadblocks are caused by

restrictions on meter aggregation, as neither utility would allow for the dispersal of solar electricity from one system to the multiple housing units at each site. People Inc. put both proj-

ects on hold and, along with the rest of the Solar Workgroup, is pursuing legislation to remove these barriers and make solar more accessible to low- and moderate-income communities.

Moormans encourages the community to voice their opinion about new solar energy laws to their state delegates during the Virginia legislative session in early 2020.

“Whatever people can do to vocalize their support around changing the policy landscape would make a huge difference,” he says.

If state representatives and legislators hear the public saying that they want renewable energy made more accessible, Moormans believes that the new legislation will have a better chance at passing. — *By Rachael Kelley*

Continued on page 19

## Central Appalachian Clean Energy Policy Toolkit

A January 2019 report by the Central Appalachian Network outlined barriers to clean energy development in the region and potential solutions to them. CAN is a coalition of environmental nonprofits, universities and consumer advocates including Appalachian Voices, the publisher of this newspaper. Below are several solutions offered in the report.

### Defend and amend effective net metering laws

Net metering allows those with solar panels to sell any excess power they generate back to the grid, which can make solar more cost effective. The report states that while more robust net metering rules are

needed in the region as a whole, Ohio and Virginia need special attention. The same is now true in Kentucky, where the state legislature passed more restrictive net metering rules in 2019, and regulators are now considering rules to implement the new law.

### Allow or clarify access to power purchase agreements

Power purchase agreements allow solar developers to buy solar arrays for customers and sell power to them at a lower rate than their prior electric bill while the customer makes payments on the panels. Kentucky, North Carolina and West Virginia all disallow these agreements, and Virginia utilities have severe restrictions for PPAs.



# Left Out

## Appalachian Power cuts Virginia schools and other public buildings out of solar savings

By Kevin Ridder

In August 2018, Virginia's Middlesex County Public Schools flipped the switch on a 1-megawatt solar array to power its middle and elementary schools. A second solar array to power the system's high school was completed this summer — making it the first school district in the country to be powered by 100 percent clean energy, according to solar installer Sun Tribe Solar. The installation is expected to save the school district roughly \$4.74 million over 25 years.

The school system's solar array was made possible through a power purchase agreement, where a third party investor working with an installer such as Sun Tribe Solar pays the upfront and maintenance costs for a solar array and then sells the power generated by the system to the customer at a lower rate than a utility would charge. This saves the school money on their utility bills and allows the solar developer to recoup the costs of the array over time.

Attorney Hannah Coman with the Southern Environmental Law Center, a nonprofit law firm, states that solar is an especially great opportunity for schools to lower their utility costs.

"During the summertime, when a school isn't using its lights and it's empty, it's actually generating electricity and putting it onto the grid and getting compensated for it — and that rolls

over onto the bills during the school year," says Coman.

For schools and municipalities in Appalachian Power's Virginia service area, however, a rule buried in the monopoly utility's contract with government entities like towns and schools is making it difficult to install solar panels. The rule is contained in the net metering service rider within the public entities' electricity tariff and contains two main obstacles to solar development, according to Coman.

First, the rule specifies that the public ratepayers in Appalachian Power territory must both "own and operate" the solar array. This takes power purchase agreements out of the equation and requires that all solar installation costs be paid upfront or with a loan, which typically requires a significant down payment and a higher interest rate. This blocks these schools and governments from taking part in agreements like the one between Middlesex County Public Schools and Sun Tribe Solar, which other utilities allow elsewhere in Virginia.

Second, the Appalachian Power rule limits an arrangement called net metering that allows those with solar panels connected to the grid to sell excess power they generate back to utilities to save on electric costs. Net metering users can also draw energy from the grid if they do not generate enough power. The total capacity of net metering allowed for all public facilities in the service area is 3 megawatts.

In contrast, the net metering cap for non-government entities such as residences and businesses in Appalachian Power's Virginia service area and in the rest of the state is roughly 40 megawatts. This is calculated by tak-



Ridgeview High School administrators hoped to begin construction on a solar array on the building's roof, left, in December 2018, but were stopped by utility policies. Above, the school uses a small solar array on their greenhouse to teach students. Photos by Appalachian Voices staff

ing 1 percent of the previous year's peak electricity usage.

"So it's making it even more difficult for government-owned buildings to net meter than it would be for you or me," says Coman. "Which, to me, is crazy, because we would want government-owned buildings and schools to save money on utilities."

In its Tennessee service area, Appalachian Power allows power purchase agreements, and the net metering cap for schools and other public entities is more generous and is calculated using 1 percent of the previous year's electricity demand. In West Virginia, state statute does not allow power purchase agreements for ratepayers of any utility. The utility's net metering cap for the state is set at 3 percent of the previous year's electricity demand.

### Hitting a Solar Roadblock

Public projects in Roanoke, Va., have also been affected by the utility's solar tariff.

"It inhibits the growth of solar in our community," says Nell Boyle, Roanoke's sustainability outreach coordinator. "We've looked in the past at a couple of bigger projects, and we still are and certainly would like the option to do some net metering. It's kind of a disappointment that when you go to have that discussion, there are certain buildings that can do that and certain ones that cannot."

The tariff is renegotiated every three years and is set to expire at some point

in 2020. A steering committee made up of representatives from the different municipalities in Appalachian Power's service area is expected to renegotiate the contract before it expires. Coman states that each town has the option not to sign the contract, but that "everybody does in practice because nobody wants to go out on their own and try to negotiate with Appalachian Power."

According to Coman, the contract is privately negotiated between the municipalities and the utility, and no records of the negotiations are on file with the State Corporation Commission, the Virginia institution charged with regulating the utilities.

Nell Boyle calls the tariff negotiations "very confusing."

"The process is harder than it needs to be, and a little more complicated than it needs to be," says Boyle. "It'd be nice if it was a more streamlined and transparent process."

### Delayed Solar

At the end of 2018, solar developer RockBridge Energy was ready to start construction on an array that would completely power Ridgeview High School in Dickenson County, Va. Negotiations for the project were facilitated by the Solar Workgroup of Southwest Virginia, a collaboration between colleges, state agencies and nonprofit and community action groups including Appalachian Voices, the publisher of this newspaper.

But since Appalachian Power does not allow power purchase agreements for public K-12 schools, Ridgeview has been unable to move forward on the project.

Continued on next page

## Solar Tour

Continued from previous page

### Spencer Presbyterian Church

Brenda Wilson is one of nine dedicated congregation members at Spencer Presbyterian Church in Spencer, W.Va. Each member is an environmentalist in their own way, so their decision to install solar panels on the church's roof in 2018 was an easy one.

Wilson takes minutes and keeps records for the church's decision-making group, and because of her experience and passion for solar energy, she also organized the church's installation.

Wilson applied for the Restoring Creation Loan, which aids churches in reducing their carbon footprint, through the Presbyterian Church U.S.A.'s Investment and Loan Program. Spencer Presbyterian Church received a \$44,000 loan with 2.5 percent interest and a \$10,000 grant to put toward their solar energy system. Including the down payment, the total investment came to \$60,000.

In summer 2018, Solar Holler installed an 89 panel, 28.48-kilowatt solar array on their roof. Though the system was designed to cover 95 percent of the electricity costs, the church's designation as a "commercial account" by

Monongahela Power Company requires them to pay a minimum fee each month.

"Those things were things we hadn't anticipated," Wilson explains. Though they did not expect the extra charge, members of the congregation and community continually voice their support for the church's decision to go solar.

"They're all like, 'Yeah, this was the right thing to do,'" she continues. "It's gonna help the environment, it's a model for the community. That's why we're doing this. It's all been really very good, and people have been very positive about it."

Beyond her work at the church, Wilson and her husband also strive to live sustainably. Sixteen field-mounted solar panels in their yard provide energy to their three-room cabin and newly purchased electric car.



The solar panels at Spencer Presbyterian Church. Photo courtesy of Brenda Wilson

## Left Out

Continued from previous page

"We knew initially when we went through the [request for proposal] process that the funding would be an issue because we're in a community where we have limited funds, and we have to be very thoughtful about the spending of those funds," says Denechia Edwards, director of career and technical education at Ridgeview High, which is in an economically distressed county.

"Without using third party financiers, I'm not sure how the project is going to move forward," she adds.

To make matters worse, a federal tax credit on 30 percent of the cost of solar systems declines to 26 percent at the end of 2019. This means that if construction does not begin or if a minimum investment threshold is not met by the end of the year, costs would be higher for RockBridge and contract rates for Ridgeview along with it.

According to Dan Hunnicutt with

RockBridge Energy, everything in Appalachian Power territory is subject to the solar tariff — a problem that the company

has not encountered with Dominion Energy, Virginia's other dominant utility. He states that Appalachian Power is concerned that if it offered more net metering and allowed power purchase agreements, customers who do not use solar would be subsidizing those who do. A spokesperson for the utility stated that they are unable to comment on the matter since the contract is under negotiation.

"Appalachian Power has expressed an interest in addressing this issue, but obviously their terms are going to be different than what we're looking for," says Hunnicutt. He states that they

Through the church's panels and her own dedication to renewable energy, Wilson and her congregation hope to keep solar in the minds of the community. — By Rachael Kelley

### Linda Orth

After several years of experiencing the benefits of solar energy in Hawaii, Linda Orth of Rutledge, Tenn., decided to have an 18 panel, 5.22-kilowatt solar array installed on her garage in September 2019 by Lightwave Solar. Orth had the system ready just in time for the 2019 National Solar Tour.

Orth's interest in installing solar again was inspired by her previous system in Hawaii, which paid itself off in five years, and the advice of a friend. The installation was also practical because of the Tennessee Valley Authority's Green Power Providers program that Orth's local power company partnered with to reimburse Orth at a rate of nine cents for every kilowatt-hour generated by the solar installation. This program is slated to end on Dec. 31. Read more on page 23.



Linda Orth's garage solar array was made possible in part due to TVA's Green Power Providers program, which the utility is discontinuing. Photo by Linda Orth

According to Orth, the installation also sparked the interest of her community, and participating in the tour helped her to meet some of her neighbors for the first time.

"We had the sign out, everybody was curious," says Orth. "They had seen the panels go up on the garage and, you know, nobody on the street had solar, so they were interested."

Going forward, Orth mentioned that she might add battery storage to her solar installation once batteries become more cost-effective.

"If you've got that amount of money just sitting in the bank, why not invest it into something that not only will pay off, but will also be good for our environment," Orth says to those interested in installing solar. "That would be my advice... Do something with it to help you and somebody else." — By Jack Singletary ♦

something that is going to be the future," says Edwards. "I think this will give us an opportunity to expose our students to green energy production so that the community as a whole will have a better understanding of how it works and the benefits it provides to the community."

Nell Boyle with the City of Roanoke states that the city plans to have a seat at the table for renegotiating the terms of the solar tariff, and that they hope to raise awareness of the issue in the months before.

"When you use your voice as a community advocate and talk to your representatives and the people that can really influence some of this legislation, I think that's really where the power is," says Boyle. "Write your senator, representative, delegate, whoever it is that you can get their ear." ♦

For updates about how Appalachian Voices and the Solar Workgroup of Southwest Virginia are working to expand solar access in Appalachian Power's Virginia territory and for ways to get involved, visit [swvasolar.org/take-action](http://swvasolar.org/take-action).



Appalachian Voices' Adam Wells, front, at a June Solar Workgroup of Southwest Virginia meeting. Photo: Solar Workgroup of SWVA

# A High Price for Low-Quality Water

By Kevin Ridder

Martin County, Ky., resident Gary Michael Hunt doesn't mince words when asked whether he trusts the public water system.

"Absolutely not," says Hunt. "You can't drink it. One day it looks like s—, the next day it's cloudy looking. You never know what you're getting when you turn the faucet on."

Even so, he states that the worst part is when nothing comes out at all. While neither he nor his family drink the water, it's their only choice for showers, washing clothes and more. And even that comes with problems; Hunt says that he and others occasionally get bad rashes after taking a shower.

Like others in the area, Hunt and his family rely on bottled water for drinking and cooking — and that doesn't come cheap.

"We drink about \$300 a month in bottled water," he says. "And that doesn't include paying the water bill."

That water bill can vary wildly from month to month. In September, the bill was inexplicably \$186.

Hunt is hardly alone in this situation. On average, Martin County has the eighth-highest water bills out of all water districts regulated by the Kentucky Public Service Commission, according to a September report released by the nonprofit law firm Appalachian Citizens' Law Center and community group Martin County Concerned Citizens.

Leaky pipes remain a major problem for the aging water system, according to the report. More than 63 percent of water was lost somewhere between the treatment plant and customers in 2018, and nearly 70 percent between January and September 2019.

The district's water also has a history of being polluted with unsafe levels of byproducts from chlorine disinfectants used in water treatment. A 2018 change in chlorination methods improved this, according to the report. Still, preliminary results from water tests conducted by Martin County Concerned Citizens at 100 randomly selected homes in summer 2019 found that 15 to 20 percent of residences had levels of disinfectant byproducts that exceed the maximum allowable limit. A similar percentage had coliform bacteria, which is not always harmful but indicates that other pathogens could be in the water.

In attempts to address the massive debt the system is in, the water board has increased rates by 42 percent since January 2018. This has been especially tough on residents as the county is one of the poorest in the state. According to the report, water is currently unaffordable for nearly 46 percent of Martin County residents. Although the Public Service Commission is aware of the county's financial situation, the commission's legal position is that it cannot take water affordability into account when deciding on rate changes.

On Nov. 20, the commission announced that outside company Alliance Water Resources, Inc., would take over management of the district starting Jan. 1, 2020. The commission did not declare an additional rate increase, which is good news for residents like Martin County Concerned Citizens

The Teamsters delivering donated bottled water to Martin County in April 2019. Photo by Ricki Draper



Residents expressed dissatisfaction with how state and federal funding was allocated in their community at a Sept. 12 Martin County Concerned Citizens meeting. Photo by Roger Smith/The Mountain Citizen

Chairperson Nina McCoy, who had been expecting a sharp increase.

The community group's report outlines several steps to help save the failing district without placing the burden on ratepayers. These recommendations include allocating federal grants and state budget funding for water line repairs; payment assistance programs for low- and fixed-income residents; implementing alternative rate structures; and requiring the Public Service Commission to consider affordability when considering rate cases.

McCoy and others have expressed concerns that the entire district could eventually be bought out by a private company, which can lead to higher water bills and other problems.

"We realize we always have to stay vigilant for the possibility of a move toward privatization since there seems to be a worldwide campaign toward that," wrote McCoy in an email. "However, at this time having the technical and managerial expertise of hiring a management company along with the oversight of a citizen board is the best possible choice for our community."

## A Common Problem

While Martin County's water problems are extreme, they are hardly an isolated case. Many rural water districts in Kentucky and across the nation suffer from drinking water loss, contamination and more.

In November, the Kentucky Public Service Commission ordered the Southern Water and Sewer District to reduce the monthly bills for their 5,400 customers in Scott and Knott counties from \$58.82 per month to \$54.71 and outlined ways to further reduce water

bills in the district.

Like Martin County, the district is plagued with aging infrastructure and what the Public Service Commission characterized as "years of willful mismanagement and neglect" on the part of the board and general manager, who were replaced earlier in 2019. A \$1.5 million grant from the federal Abandoned Mine Lands Pilot program is slated to help pay for new water meters in the district.

Water districts across Kentucky lose an average of 30 percent of treated water annually, according to the American Society of Civil Engineers, an industry trade group. Aging systems across the country lose an estimated 14 to 18 percent of treated water. For Kentucky, a projected \$8.2 billion would be required to repair these systems.

More than 1,600 communities across the country, including Martin County, have drinking water that is contaminated with unsafe levels of trihalomethanes, a byproduct of chlorine disinfectant used in water treatment, according to a 2017 report by the nonprofit Environmental Working Group. Many of these are rural farming communities.

Climate change has also started to severely impact rural water systems. A severe drought in Kentucky contributed to September 2019 likely becoming the driest September on record, Kentucky Climatologist Stuart Foster told WFPL News Louisville.

The drought led to a severe water shortage in Benham, Ky., in October. After water supplies dropped to one-fifth of normal levels, the rural community had to start pumping from the river — but the problems didn't stop there,

*Continued on next page*

## Water Troubles

*Continued from previous page*

WYMT News reported.

The 1970s-era water lines couldn't handle the restored pressure once the river water started flowing through them, causing multiple line breaks in mid-October, according to WYMT News. Benham Mayor Howard White told the news station that the city does not have the funding to fix the lines, and that another six-inch line break could cause the whole area to lose water.

Luckily, no additional line breaks had occurred as of late November, according to the Benham City Clerk's office. The city received help from nearby Barbourville, Ky., as well as from two statewide utility associations.

A major increase in federal funding for drinking water systems is needed, wrote lawyer Madison Condon in the American Bar Association's October issue of Human Rights. Condon states that less than \$2.8 billion in federal funds were allocated for water infrastructure projects in 2019 — less than 0.5 percent the amount the U.S. Environmental Protection Agency estimates is needed.

Just this fall, \$4 million in federal grants was announced for Martin Coun-

ty's water system, but much of the money is not intended to support water service for a federal prison, not to fix residential water lines. Read more in the October/November issue of The Appalachian Voice at [appvoices.org/VoiceAMLPIlot](http://appvoices.org/VoiceAMLPIlot).

"Not only are water quality violations more likely to occur with water systems that service minority or low-income populations, but oft-discussed solutions to America's rural drinking water crisis, such as privatization and regionalization, fail to address the unique barriers that poor communities and communities of color face," wrote Condon.

## Looking Forward

In a November 2018 order approving the second Martin County rate increase that year, the Kentucky Public Service Commission stated that the water district "currently operates in a constant state of emergency and its ratepayers are suffering the dire consequences of decades of poor choice made by its management and commissioners."

When the water board requested a 49 percent rate increase in January 2018, Martin County Concerned Citizens intervened in the case in front of the Public Service Commission.

"And when that happened, the previous water board all quit," says Nina McCoy of the community group.

## 100% Clean Energy

*Continued from page 16*

city solar too costly at the moment.

"Our utility has a lot of excess generation capacity with their power plants, so adding additional generation in the form of solar or other renewables is counter to their business plan," says Kotcon.

He states that the West Virginia legislature would need to implement solar-friendly policies in order for solar installations to become cost-effective for the city.

But the city has made progress on other energy efficiency measures. According to Kotcon, Morgantown has allocated \$50,000 in the last two years for investments in municipal buildings such as improved ventilation systems, efficient light bulbs and better insulation.

## Banding Together

In December 2017, Blacksburg, Va., passed a resolution calling for 100

percent clean energy by 2050.

"Right around that time, we were hearing from more and more citizens who were alarmed at this change in federal policy," says Blacksburg Sustainability Manager Carol Davis, referencing Trump's decision to depart from the international climate agreement.

Davis states that a number of locals and businesses signed onto a letter in support of maintaining the Paris agreement goals, and that the city was approached by the nonprofit Blue Ridge Environmental Defense League about strengthening their environmental goals. Blacksburg had already resolved in 2007 to reduce emissions 80 percent by 2050.

Davis acknowledges that there are questions surrounding the technological feasibility of reaching 100 percent clean energy by 2050.

"But, regardless if there's some margin of uncertainty about whether it's 100 percent achievable by 2050, there's no reason to not start working on it aggressively now," says Davis.

Generating their own renewable

"They're not used to having to answer to citizens. They're only used to having to do whatever they want to do."

The Public Service Commission eventually approved two increases that amounted to a 42 percent rate hike. In the investigations

since, the commission found that there hadn't been a completed audit by the Martin County Water District since 2011 — meaning those rate increases were approved without any evidence to show how much money was needed.

"The water district was \$1 million in debt at the time when this new board took over in January 2018," says McCoy. "They say that there's no documentation, which means to me that money was misappropriated. Audits are supposed to be required under the law, so why are people able to get by without following the law while at the same time just saying to increase the rates on the common people?"

power has been challenging. Davis states that Blacksburg doesn't have enough wind for turbines nor enough open landmass for a utility-size solar project. Additionally, state restrictions on third-party power purchase agreements limit access to residential solar.

"It's still worth us saying that we will make this commitment because we know to actually make this transition, it's not about individual households or even an individual locality taking this on," says Davis. "This is about shifting policy at the federal and state level."

"The options that are available [to towns] are small-scale options that really only chip away at the problem at the edges," she continues. "I think what we need is really state-level utilities to transition to clean energy."

Davis states that many government employees from around the region wanted to make sure communities were a part of the renewable energy conversation, which was dominated by utilities and environmental groups.

So in 2017, Blacksburg joined with



Martin County drinking water on Feb. 20, 2016. Photo courtesy of The Mountain Citizen

"It's a very tangled web here, it's not an easy story of bad water," says McCoy, referring to the influence of local elites. "It's corruption, it's not having to be accountable to the public."

The Martin County Water Board had not responded to requests for comment as of press time.

This winter, Martin County Concerned Citizens is working with the University of Kentucky on water testing and a health survey. Ricki Draper, the community engagement coordinator for Livelihoods Knowledge Exchange Network, works closely with Martin County Concerned Citizens and states that they expect to be able to circulate the results through a series of community meetings in early 2020 where the group also hopes to discuss possible solutions to the water crisis.

Meanwhile, water will still be on the minds of Martin County residents. "I think that we all need to be thinking about clean and affordable water into the future," says Draper. "People here are thinking about it on a daily basis." ♦

around 20 other Virginia localities to form the Virginia Energy and Sustainability Peer Network to advance local sustainability measures. Government employees are not able to engage in direct lobbying, which can make it difficult for them to make their voices heard while staying within legal boundaries.

"We're new to this game," says Davis. "We haven't been a part of that lobbying and advocacy place, and it's a real uncomfortable space for the whole government because it's just not the way they operate — but we also are out of time, and we really need ambitious leadership on this, so we sort of have to figure out how to be those leaders within the framework that's available to us."

In December, the group is slated to meet with a similar organization of communities based in Colorado to receive a grant-funded training on environmental policy work.

"We're going to build a framework for how we work on these policy issues

*Continued on page 23*

# Hiking the Highlands

## West Rim Loop Trail

Spectacular views at Cloudland Canyon State Park

By Kevin Ridder

Driving up to the main trailhead, our dog Murdock excitedly sticks his head out of the window in anticipation of the many new smells to come. Before my girlfriend Courtney and I set foot on the trail, however, we walked to the first overlook for a full view of Cloudland Canyon State Park's namesake.

Established in 1938, the park is located in the corner of Northwest Georgia, about a 30-minute drive from Chattanooga, Tenn. Steep cliffs transition into gently sloping hills, blanketed in October's green- and autumn-tinted tree canopy, and the Blue Ridge Mountains outline the horizon. While some green will remain in winter, most of the valley's trees will lose their leaves until spring returns. It's a very popular destination in fall and winter.

The 3,538-acre park boasts scenic waterfalls, natural caves, dense forests, numerous hiking and mountain biking trails and a variety of overnight accom-

modations including campgrounds, backcountry sites, cabins and more. The thousand-foot-deep gorge at the center of the park showcases millions of years of erosion powered by Bear and Daniel creeks.

Murdock tugs us away and we begin our trek along the West Rim Loop Trail. Glancing at a map, we see that the 4.8-mile hike descends into the thousand-foot deep canyon and back up to the other side, where it loops around the west canyon walls before retracing the last mile back to the trailhead. Signs near the overlook warn hikers not to throw rocks over the edge, as they might strike others below.

We shortly come upon the first of several metal-grated staircases, which may present a challenge for dogs. About a quarter-mile in, the trail splits off into the West Rim Trail and the Waterfalls Trail. The latter involves roughly 600



A view of Cloudland Canyon from the main trailhead on a clear winter day. Photo by Chris Appugliese. At left: Fellow hiker Murdock. Photo by Kevin Ridder

stairsteps down, but rewards hikers with the sights and sounds of Cherokee Falls and Hemlock Falls.

Veering left, we follow the yellow blazes down the smaller staircase. The trail becomes very steep, although plenty of roots serve as footholds. After crossing over Sitton's Gulch Creek on a wooden bridge, the path follows a series of switchbacks as we hike up the opposite side of the canyon.

I pause momentarily to peer inside a natural cave near the rim. A pleasant, woody smell lingers in the air after the morning's rain. The trail narrows at this point and there is a steep cliff to the right, so we tread carefully. We soon hike past the park's yurts, which travelers can rent for the night year-round. Reaching the rim, we enjoy the flat portion of the trail.

A sign tells hikers to stay on the trail to protect vegetation. Even though you might not see much green in the colder months, there are many wildflower species in the area that are visible come spring. Venturing off-trail can kill plants, increase erosion and compact the soil.

About a mile into the hike, we suddenly step out onto a large slab of rock where we can see the first overlook on the other side of the canyon. After a quick break for water, we dive back into the trees and follow the yellow blazes.

We soon reach the loop portion of the trail marked by a signpost and opt to go left, as it does not look as steep.

As the dense tree canopy transitions into young forest, the clouds clear to reveal a beautiful blue backdrop to the autumn leaves. Brief overlooks in between the trees reveal miles of wooded foothills.

Our gradual ascent along the grassy path crosses a park road about two miles in. We reach the northern edge of the canyon's rim and veer right to follow the trail. After several smaller overlooks, Courtney and I reach a stone staircase that leads down to a fenced area where we are met with a spectacular view of the canyon and Lookout Mountain to the north.

A sense of quiet wonder sets in as we stand and take in the landscape. Well worth the hike, this secluded rocky outcrop is an ideal place to view Northern Georgia's stretch of the Blue Ridge Mountains.

Reluctantly leaving the overlook, we continue. At roughly 3.5 miles, we complete the loop and begin retracing our steps with Murdock in the lead. We dip down into the gorge and back up again, returning to the trailhead at 4.8 miles.

Pausing one last time at the first overlook, I wonder what the park will look like when winter comes to the mountains. I hope to return soon to see it for myself. ♦

### West Rim Loop Trail

**LENGTH:** 4.8 miles round-trip  
**DIFFICULTY:** Moderate to strenuous  
**DIRECTIONS:** From U.S. I-59 South, take Exit 11 for GA-136 toward Trenton. Turn left onto White Oak Gap Rd. and right onto S. Main St. after 0.3 miles. After 0.1 mile, turn left onto Lafayette St. for 6 miles and turn left at the state park entrance. Follow

signs to the main trailhead.  
**FEE:** \$5 for a one-day parking pass  
**CONTACT:** Call (706) 657-4050 or visit [gastateparks.org/CloudlandCanyon](http://gastateparks.org/CloudlandCanyon)  
**OTHER NOTES:** Check ahead of time for any winter-related trail closures. Hikers with dogs must keep pups leashed and clean up after them. Wear sturdy shoes and allot at least three hours for the hike.

## TVA Stifles Small-Scale Solar in the Tennessee Valley

By Molly Moore

Installing home solar will become more difficult for millions of people in the Southeast after Jan. 1, 2020.

The Tennessee Valley Authority, the federally run utility that provides electricity across Tennessee and parts of surrounding states, will stop accepting applications for its Green Power Providers program at the beginning of the year. The program allows participants with qualifying solar installations to sell all of the power they generate back to the TVA grid at a rate of 9 cents per kilowatt-hour. People already enrolled in the program will be able to continue through the end of their contract.

TVA stated that a top reason for ending Green Power Providers is that the program is underutilized. Environmental advocates like the Southern Environmental Law Center, a nonprofit legal firm, counter that this is because the program needs to be improved, not due to lack of demand.

"To the extent the GPP program is failing, it's because of the program's design, which has artificially stifled investment in small-scale solar in the Valley," Christina Reichert, an associate attorney with SELC, said in a press statement.

In public comments submitted in response to TVA's proposal, SELC writes that "TVA's own

research found that consumers continue to be attracted to programs that compensate consumers for their generation of electricity." The law center states that, according to the utility's research, ratepayers would prefer a standard net metering arrangement where they use the electricity their panels generate and are compensated for excess power they send back to the grid. Green Power Providers has also regularly lowered its financial incentives for participants since 2014.

TVA cited an "unfair burden on non-participants" as an additional reason for shuttering the program. But the law center noted TVA's own data shows that small-scale solar installations like those on homes or schools help the utility avoid costs from purchasing energy elsewhere, in addition to the environmental and health benefits of cleaner power.

TVA's critics also argued that the publicly owned utility was skirting the public comment process and violating federal law because its board of directors decided to terminate the program and TVA began implementing the change without considering public comment or conducting an objective analysis.

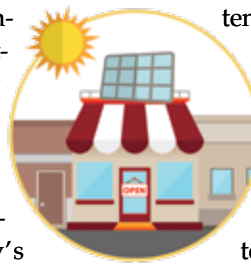
The pro-renewable energy organization Southern Alliance for Clean Energy called on TVA to ex-

tend the program throughout 2020 and conduct a comprehensive study on the value of solar to inform "a genuine, transparent process to develop a suitable alternative to the GPP program that fairly compensates customers for providing benefits to all TVA customers."

TVA has released an environmental assessment that proposes "alternative solutions" to the cancelled GPP program. The assessment states there may or may not be a replacement for the program, and the proposed replacements would pay energy producers a far lower rate per kilowatt-hour.

Under TVA's latest 20-year plan, released in 2019, the utility forecasts slow growth in solar and nearly no gains in energy efficiency. TVA claims it will install "up to" 14 gigawatts of solar by 2040, but that figure is an extreme outlier and is not within the range of likely scenarios detailed in its plan.

In a blog post, Stephen Smith and Maggie Shober of Southern Alliance for Clean Energy wrote, "We think it is extremely unethical for TVA to continue to mislead the public into thinking TVA is actually planning to add significant solar in the near term. TVA either needs to put an end to the misinformation, or put forth an actual plan to aggressively add solar." ♦



## 100% Clean Energy

Continued from page 21

together," says Davis, "so we're speaking with one voice. Not just, 'Fairfax County wants this, Richmond wants this.' Actually, we're going to be able to come to the table and say, '20 localities are banded together and this is the policy priority for them.'"

Banding together in this way can be a strong tool for smaller communities, according to Drew O'Bryan with the Sierra Club's Ready for 100 campaign, which works to help communities commit to a goal of 100 percent clean energy. He points to how Salt Lake City, Utah, partnered with several nearby smaller communities to make large renewable energy asks of their coal-heavy utility provider Rocky Mountain Power.

"The utility didn't want to change their structure," says O'Bryan. "But once the cities actually started threatening to pull out of that utility and municipalize or just do something at the state level, the utility came to the table and passed a bill in partnership with the cities to say that any city in Utah that has made a 100 percent renewable energy commitment by the end of the year will be supplied with that renewable power from the utility by 2030."

In Tennessee, multiple communities are pressing the Tennessee Valley Authority to offer more renewable energy. Memphis' municipal utility, TVA's largest customer, is even considering leaving the federally run monopoly utility in favor of creating its own power generation facilities. The mayors of Memphis, Nashville, Knoxville and Chattanooga, Tenn., are all members of the National Mayors Climate Action Agenda.

With more and more communities reaching for clean energy goals, Davis says that she is excited.

"It feels like something is shifting; it seemed pretty bleak for a couple of years there," says Davis.

"This, to me, speaks to the importance of continuing to do that plodding, incremental work so that you are well positioned when the opportunities for transformational change come along," she adds. "If you just throw up your hands when it seems hard and hopeless, then you're going to be out of the game." ♦

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—Harris Prevost  
 VP of Grandfather Mountain

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## Appalachia's Environmental Votetracker

**116TH CONGRESS:** Below are recent congressional bills and amendments on environmental issues and how central and southern Appalachian representatives voted. To see other recent votes, or for congressional representatives outside of the five-state area, visit [congress.gov](http://congress.gov). ● = pro-environment vote ✗ = anti-environment vote 0 = no vote

	Kentucky			Tennessee			North Carolina			Virginia		West Virginia				
	T. Massie (R) KY-04	H. Rogers (R) KY-05	A. Barr (R) KY-06	P. Roe (R) TN-01	T. Burchett (R) TN-02	Fleischman (R) TN-03	S. Desjarlais (R) TN-04	V. Foxx (R) NC-05	P. McHenry (R) NC-10	M. Meadows (R) NC-11	D. Rigglesman (R) VA-05	B. Cliffe (R) VA-06	M. Griffith (R) VA-09	D. McKinley (R) WV-01	A. Mooney (R) WV-02	C. Miller (R) WV-03
<b>HOUSE</b>																
<b>H.R. 3055, the FY2020 Interior, Environment and related agencies appropriations bill,</b> funded several agencies, prevented a government shutdown and rejected presidential budget cuts by increasing environmental funding. <b>AYES 227 NOES 194 NV 12 ... PASSED</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>H. Roll Call 383, amendment 139 to H.R. 3055,</b> would have prohibited the EPA from carrying out actions under the Endangerment Finding, a 2009 finding that humans are contributing to climate change. <b>AYES 178 NOES 254 NV 6 ... FAILED</b>	✗	✗	✗	✗	✗	✗	✗	✗	●	✗	✗	✗	✗	✗	✗	✗
<b>H. Roll Call 385, amendment 147 to H.R. 3055,</b> would have blocked the U.S. Environmental Protection Agency from enforcing rules on methane emissions for oil and gas operations. <b>AYES 190 NOES 241 NV 7 ... FAILED</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>SENATE</b>																
	M. McConnell (R)	R. Paul (R)	M. Blackburn (R)	L. Alexander (R)	R. Burr (R)	T. Tillis (R)	T. Kaine (D)	M. Warner (D)	J. Manchin (D)	S. M. Capito (R)						
<b>S.J. Resolution 53</b> would have expressed the Senate's disapproval of the Trump Administration's Affordable Clean Energy rule issued in June. <b>AYES 41 NOES 53 NV 6 ... FAILED</b>	✗	✗	✗	0	✗	✗	●	●	✗	✗						

## Appalachian Towns Show Support for Abandoned Mine Cleanup

Efforts to secure cleanup funds for abandoned mine sites are moving forward at the nation's capital and in Appalachian towns. The Abandoned Mine Land program aims to clean up the thousands of mine-related problems left behind by coal companies before 1977, when a law requiring mine reclamation was passed. Although there is at least \$10 billion in abandoned mine cleanup costs remaining, the coal company fee that supports the program will expire in September 2021 unless Congress acts.

In early December, the town of Dungannon, Va., and the City of Norton, Va., both passed resolutions calling on Congress to reauthorize the Abandoned Mine Land program.

The resolutions note that "the reclamation of such sites provide[s] local job opportunities at a time when economic growth is needed" and call on politicians to extend the program for 15 years. More towns and cities are expected to consider resolutions in December and into 2020.

On Nov. 14, the U.S. House Committee on Natural Resources' Subcommittee on Energy and Mineral Resources held a hearing on a bill introduced by Rep. Matt Cartwright (D-PA) that would extend the Abandoned Mine Land program.

Bobby Hughes, executive director of the Eastern Pennsylvania Coalition

for Abandoned Mine Reclamation, testified during the hearing and described "mine-scarred landscapes and polluted waterways."

"The majority of the streams that I've grown up around still run orange to this day due to the very large flows, expansive underground mine pools, and expensive treatment costs," Hughes testified. "It's not fair that my children have to live with this legacy of past mining that I have had to endure over my lifetime."

Supporters of Cartwright's bill, called the Surface Mining Control and Reclamation Act Amendments of 2019, include Appalachian Voices, the group that publishes this newspaper.

Appalachian Voices is also among the organizations working to secure passage of the RECLAIM Act, a separate bill that also relates to the Abandoned Mine Land fund. Currently, \$2.5 billion in the fund is not scheduled to be used for mine cleanup until after 2023. This bill would accelerate the spending of \$1 billion of that to prioritize cleanup of abandoned mine sites that advances community-supported economic development projects. — *By Molly Moore*

*Stay informed about local resolutions to support the Abandoned Mine Land program at [reclaimingappalachia.org/reauthorization](http://reclaimingappalachia.org/reauthorization).*

## Bills Support Miners' Pensions, Black Lung Benefits

As of early December, a number of bills aimed at supporting communities impacted by coal mining awaited congressional action.

Following Murray Energy's October bankruptcy announcement, it became more urgent for lawmakers to find a fix for the struggling United Mine Workers of America pension fund, as it appeared the fund would become insolvent in 2020. In November, Senate Majority Leader Mitch McConnell (R-Ky.) reversed course and announced his support of a bill to protect miners' pensions — S.2788, the Bipartisan American Miners Act of 2019.

The Senate bill, along with a companion bill in the House, would extend the transfer of interest from the federal Abandoned Mine Land fund to cover miners' pensions and would include

the tens of thousands of employees affected by 2018 and 2019 coal company bankruptcies. Once the interest on the AML fund is exhausted, the pensions would draw from the general treasury.

Unlike an earlier version, the pension bill supported by McConnell would not restore full funding to the Black Lung Disability Trust Fund, which provides healthcare and benefits to miners with black lung disease and their survivors. The tax on coal companies that supports the federal black lung benefits fund was cut in half at the end of 2018. But a bill in the House — H.R.3876, the Black Lung Benefits Disability Trust Fund Solvency Act — would restore that tax through 2029 to ensure that money is available to help miners with the deadly occupational disease. — *By Molly Moore*

## Bankruptcies Shake Coal Industry

On Oct. 29, Murray Energy became the eighth coal company to file for bankruptcy in 2019. Analysts attributed the move to competition from cheap natural gas and renewables as well as declining export markets.

CEO Robert Murray, known for fighting against environmental regulations, will step down after the company's bankruptcy.

Murray Energy was the last company paying into the United Mine Workers of America pension plan, and its filing has added urgency to a push to secure miners' pensions (see below). Unlike the July bankruptcy of Blackjewel and its related companies, Murray Energy's mines were expected to continue operating during bankruptcy proceedings, which were ongoing at press time.

Blackjewel's case is still unfolding. After a sustained protest by workers, the miners owed back wages were paid. But on Dec. 6, the Lexington Herald-Leader reported that Kopper Glo Mining, which purchased many of Blackjewel's Kentucky mines during the bankruptcy sale, had idled mines and laid off non-salaried miners until at least Dec. 26.

A proposed sale of some of Black-

jewel's Wyoming mines to Eagle Specialty Minerals still lacks federal approval. And questions remain about when and how reclamation will proceed at the companies' mines.

In early December, the U.S. Interior Department claimed Blackjewel owed \$886,000 in royalties and taxes on coal mined after filing for bankruptcy — on top of the approximately \$50 million it already owes the federal government.

Indemnity National Insurance Company, which insures the reclamation bonds for some of the companies' mines, requested that Blackjewel pay Indemnity more than \$66 million to cover the bonds for mines that were not sold during bankruptcy. Indemnity is responsible for either reclaiming the mines or paying the bond amounts to state agencies, which would then be responsible for reclaiming the sites. As of early December, bond forfeiture was underway on four Virginia mine permits owned by Blackjewel and its affiliate Revelation Energy.

In December, a judge ordered Blackjewel to account for more than \$77,000 in expenses incurred during the bankruptcy proceedings, including lavish meals and hotel stays. — *By Molly Moore*

## East TN Coal Ash Concerns Continue

In late summer and early fall, residents of Anderson County, Tenn., noticed a mysterious dust coating their cars and homes. In October, the Tennessee Valley Authority found traces of coal ash in eight of 13 samples.

TVA claimed the samples proved air pollution was not coming from their Bull Run Fossil Plant, but residents are skeptical. The plant is the only producer of coal ash in Eastern Tennessee, creating 1,500 tons of ash every day. TVA reported in a statement that, along with similar samples taken by the Tennessee Department of Environment and Conservation, the "results affirm that the material is consistent with surface soil."

Bull Run is scheduled to close in 2023, and TVA is proposing to open a coal ash landfill in Claxton, Tenn., for the plant. At a TDEC hearing in October, the idea received local pushback due to health and environmental concerns, including from Oak Ridge City Man-

ager Mark Watson, who wrote a letter to TDEC criticizing TVA's plans for the site.

TVA has already acquired the land, which is in close proximity to roads, neighborhoods and the Worthington Branch river. The utility has not decided whether to locate the landfill there, but The Oak Ridger reports that TVA is pursuing related permits.

The Anderson County Commission scheduled a public hearing for the proposed landfill on Feb. 18.

Roane County, Tenn., resident Margie Delozier and several local governments are suing TVA for failing to protect the public from hazards associated with the 2008 Kingston coal ash spill. The disaster allegedly contaminated Delozier's property and exposed the community to toxic chemicals. The lawsuit also holds the organization hired to clean up the spill, Jacobs Engineering, accountable for failing to protect affected residents. — *By Rachael Kelley*

## EPA Proposes Weakening Rules for Coal Ash and Related Pollutants

The U.S. Environmental Protection Agency on Nov. 4 proposed two roll-backs on pollution limits for coal-fired power plants. In an attempt to keep the coal industry afloat, the changes would alter regulations established by the Obama administration in 2015.

The existing rules set up procedures to manage coal-burning wastes, such as calling for unlined coal ash ponds to be closed by April 2019 and requiring utilities to test for groundwater contamination near the pits. However, the Trump administration had already pushed pond closure deadlines to October 2020, and the new proposal would delay some closings even longer.

In North Carolina and Virginia, the state governments are requiring utilities to remove coal ash from unlined ponds.

Obama's EPA also enacted a rule that tightened restrictions on wastewater from coal-fired power plants. The

current EPA proposes to loosen this coal effluent rule, potentially creating loopholes that would allow electric companies to release untreated or partially treated fluids into public waterways.

The EPA is holding a 60-day public comment period and a virtual public hearing for each proposal.

The agency is pushing several other changes that would affect coal-fired power plants. Regarding the federal Superfund cleanup program, the EPA is developing a determination that would release electric utilities from a requirement to confirm they have the funds to cover potential toxic waste clean-ups.

The EPA is also working to change the way it calculates the health impacts of regulations on air toxins, including mercury. Public health and environmental advocates are concerned this is part of an attempt to weaken mercury limits. — *By Rachael Kelley*

## West Virginia Fossil Fuel Severance Tax Impacts State Budget

In October, West Virginia Gov. Jim Justice announced he was considering a \$100 million mid-year state budget cut to recover a \$33 million deficit from the first third of fiscal year 2019.

West Virginia Deputy Revenue Secretary Mark Muchow attributed a drop in revenue to the low state severance tax collected due to a slower market for natural gas and coal than originally forecast. In March, the

governor signed a bill lowering the state's coal severance tax rate.

The West Virginia Center on Budget and Policy, a research organization, has proposed an increase in the natural gas severance tax to boost state revenue. Although extractive industries are typically opposed to the tax, the center argues that an increase is feasible and would benefit West Virginians. — *By Jack Singletary*

## New Federal Pipeline Safety Rules Attract Criticism

In September, the federal Pipeline and Hazardous Materials Safety Administration announced new pipeline safety rules. These rules increase requirements intended to ensure pipelines are kept in good condition and give the agency more authority to shut down or restrict pipeline operations.

Though praised by the industry, opponents of projects like the Mariner East liquid natural gas pipelines in Pennsylvania point out the rules' weak spots, including

the lack of a process for determining where a pipeline should be built or procedures for emergencies like leaks and explosions.

Critics also point out that Mariner East Pipeline developer Sunoco has not followed current safety practices. The company's failure to use an anti-corrosion technique outlined in their plan led to the leak of about 20 barrels of butane and propane from Mariner East I in 2017. — *By Rachael Kelley*

## Feds Propose Transporting Liquefied Natural Gas on Rails

The federal Pipeline and Hazardous Materials Safety Administration proposed a rule regarding liquefied natural gas transportation in October. This proposal responds to President Donald Trump's executive order in April 2019, which encouraged shipping liquefied natural gas in rail tank cars to increase

international sales. Though the agency stated that the derailment of a train carrying the gas could have "high consequence," the rule does not elicit any new safety regulations or testing. A public comment period on the proposed rule is scheduled to end Dec. 23. — *By Rachael Kelley*

## Rate Hike Provision Backed by Duke Energy Fails to Pass Legislature

In October, the North Carolina Senate and House of Representatives voted unanimously to pass a revised version of a ratemaking bill without a controversial provision supported by Duke Energy that would have allowed the monopoly utility to enact multi-year rate hikes. Instead, S.B.559, which the governor signed on Nov. 6, only addresses how to finance storm recovery costs.

Public opposition to previous versions of the bill had been strong since the bill's introduction in April, resulting in the bill stalling without a vote for several weeks in the state House. Energy Justice North Carolina, a coalition of environmental and consumer protection groups including Appalachian Voices, the publisher of this newspaper, was among those who opposed Duke's multi-year rate hike provision in the bill.

Opponents of the measure stated that it would have resulted in billions of dollars in excess profits for Duke and increased costs for ratepayers over the next 10 years. Earlier in 2019, Energy

Justice N.C. released two reports outlining how Duke targeted its campaign contributions in the last election cycle to key legislators in charge of reviewing S.B.559.

The legislature's vote came about a month after Duke Energy Carolinas requested a 10.3 percent rate hike on residential customers. On Oct. 17, Appalachian Voices and the nonprofit Center for Biological Diversity filed a legal challenge against the monopoly utility's request on the grounds that Duke did not include plans to advance renewable energy.

The two groups stated that the rate hike combined with the state's renewable energy policies would result in fewer options for residential solar power and increase the percentage of income that low-income households spend on energy costs.

Public hearings for the rate increase begin on Jan. 15. Visit [tinyurl.com/NCUChearings](http://tinyurl.com/NCUChearings) for a full schedule. — *By Kevin Ridder*

## States Request Decision on Power Plant Bailout Plan

In September, Kentucky utility regulators joined five other states in sending letters to federal authorities addressing the Trump administration's plan to bail out failing coal and nuclear power plants. In 2018, the U.S. Department of Energy announced its intention to support the plants, claiming that doing so would protect national security.

The Ohio legislature passed a similar state bill in July 2019 that subsidizes coal- and nuclear-powered plants and cuts renewable energy programs. However, an investigation released in October by the

Energy and Policy Institute, an organization dedicated to exposing misinformation on renewable energy, revealed that Ohio utility FirstEnergy Corp. provided draft testimony to local school and public officials to read in support of the bill.

The federal government has not acted on the draft plan since summer 2018. Coal lobbyists encouraged state regulators to send letters to federal officials requesting that regulators decide whether or not to subsidize the coal and nuclear facilities. — *By Rachael Kelley*

## Advancing Clean Power and Energy Democracy in State Legislatures

This issue of The Appalachian Voice explores several of the barriers that communities in our region are running into when they try and take advantage of the benefits of renewable energy. In the upcoming legislative sessions in Virginia and North Carolina, Appalachian Voices and our partners will be working to dismantle these barriers and make clean energy accessible to people across our region.

We're asking the Virginia General Assembly to create and fund a grant program to incentivize more renewable energy development on coal-impacted lands and other areas damaged by prior industrial or commercial use. We'll also

be supporting bills that advance environmental justice and accelerate solar in the commonwealth.

In 2020, the Virginia General Assembly has a clear mandate to reform electric utility regulation to advance the public interest above Dominion Energy's. As our Executive Director Tom Cormons wrote in a letter-to-the-editor published in The New York Times, the Democratic wave in Virginia's recent elections may have made headlines, but the real story is how many of these new representatives declined funding from the state's most powerful utility.

"Consider this: In a bid to salvage its influence over Virginia's energy

policy, Dominion Energy — the state's biggest corporate campaign donor by far — increased its political giving by more than 35 percent over any past election cycle this decade.

"Yet this largess failed to prevent the election of nearly 50 candidates — including all eight who flipped seats to Democrats — who pointedly refused its money," Tom's letter reads.

He concludes, "The next General Assembly, and the governor, have a clear mandate to put an end to the special favors that enrich monopoly utilities at great cost to Virginians." Read the full letter at [appvoices.org/nyt-ltr](http://appvoices.org/nyt-ltr).

In North Carolina, we're heartened

by a recent legislative victory on S.B.559, where we and our partners overcame Duke Energy's efforts to add multi-year rate hikes with less oversight into a rate-making bill. Opposition to that provision from the environmental community, social justice advocates and some of the state's most powerful businesses was strong and sustained, and the bill ultimately passed without it (see page 25).

But we know Duke will try again to use its political sway to continue putting its business-as-usual practices ahead of a sustainable future and our best interests. We and our fellow members of the Energy Justice North Carolina coalition will be vigilant.

## Moving Forward on TN Energy Democracy

Following the Tennessee Valley Energy Democracy tour earlier this year, Appalachian Voices and our partners have been compiling community ideas and implementing the next steps. This project aims to build a collective, grassroots vision for our energy future by hearing from communities impacted by the Tennessee Valley Authority.

During the tour, we worked with Science for the People, SOCM, Working Films and other community members to hold 12 events in areas both urban and rural with an estimated 300 to 350 people.

From what we heard, communities in the Tennessee Valley want our public power system to: protect our workers and provide high quality jobs; prioritize community and environmental health over wealth; generate electricity with



Brianna Knisley of Appalachian Voices speaks with Knoxville community members about their experiences with TVA at a summer tour event.

clean, renewable energy; make bills affordable and ensure everyone has power; provide equitable access to energy efficiency and solar; generate more of our power locally; and be controlled by the public.

Now, we and the other tour organizers are building a strong coalition to transform our energy system from the ground up. That means we need organizations involved — and more importantly, impacted community members and grassroots groups leading the way.

Our first step in translating community feedback into action is to draft policy suggestions on how to create the changes communities want to see. This document will be released in early 2020. In the meantime, we are asking interested folks to join strategy meetings. To view results from the tour or get involved, visit [appvoices.org/tn-valley-energy](http://appvoices.org/tn-valley-energy).



## Working to Save the Abandoned Mine Land Program

An estimated 5.5 million people in Appalachia live within 1 mile of an abandoned mine problem. These lands are supposed to be cleaned up through the federal Abandoned Mine Lands program, which covers sites left behind by coal companies before surface mining regulations were passed in 1977. But the 2021 expiration date for the fee on coal companies that funds the program is fast approaching.

We're working with partners across the country to ensure that Congress reauthorizes this program so that cleanup of these sites will continue, and are encouraging local governments in areas saddled

with safety hazards and pollution problems from these former mines to show their support for the program.

So far, Dungannon and Norton, Va., have passed resolutions asking Congress to continue funding the Abandoned Mine Land program, and more local governments will be considering resolutions throughout the winter and early spring.

Do you want your town or county to get involved? Call our Norton office at (276) 679-1691 or visit [reclaimingappalachia.org/reauthorization](http://reclaimingappalachia.org/reauthorization) to learn more and find out about events in your area.



## Welcome, Gaye LaCasce!

Gaye and her husband recently moved to Charlottesville, Va., to be closer to family. Having spent her career in the non-profit realm and in education, Gaye is glad to utilize her broad philanthropy experience to support the mission of Appalachian Voices. A longtime volunteer for many social and environmental organizations, Gaye spends her free time singing, traveling and competing with her internationally acclaimed barbershop quartet, "Aged to Perfection." Gaye also serves on the international board of directors for Harmony, Incorporated, and loves to sing with her husband and daughter in local groups.

**Appalachian Voices**  
**BUSINESS LEAGUE**

**New & Renewing Members**  
**October/November 2019**

**Patagonia** — Ventura, CA  
**Riverside Outfitters** — Richmond, VA  
**Wall Street Investments** — Asheville, N.C., in honor of Bee City USA's Phyllis Stiles

To join our Business League, visit [AppVoices.org](http://AppVoices.org) or call 877-APP-VOICE

## Ashly Bargman: A Beekeeper Working for the Good of the Whole

By Rachael Kelley

**Member Spotlight**

"What we love about the bees is that everything they do is for the good of the whole," says Ashly Bargman.

Bees are known for their intelligence and complex societies. But without their strong system of cooperation, none of what they do would be possible. Each bee has a part to play, and every role is vital to the success of the hive.

Ashly lives by this philosophy. Whether it is giving presentations about the importance of pollinators, distributing copies of The Appalachian Voice or envisioning new ideas on how to give back to her community, she tries to do her part as much as possible. In her eyes, we are all in this together.

"My children are your children, your children are my children," she says. "We are all living in the same house. Planet earth."

Ashly lives up the mountain in Renick, W.Va., with her husband, daughter and grandson. The family runs up to 50 honey bee hives on their property as a part of their business, Another Season Honey Farm.

Ashly and her husband started beekeeping in Florida, but they lost their bees to Roundup, an herbicide that has been linked to bee deaths. After living in West Virginia for five years, they still have problems with bee-killing chemicals, people stealing



The Bargman family. From left to right: Ashly, her grandson Myron, her daughter Aisa, and her husband Ellie.

their hives and the mysterious colony collapse disorder, which is affecting hives across the world. However, the challenges of beekeeping only inspire Ashly to keep fighting for a better future.

After she first lost bees, Ashly became an activist with Millions Against Monsanto, a campaign fighting against agrochemical companies like Monsanto. For the past 10 years, Ashly has presented at schools, libraries and other venues about bees and sustainability. She dresses as a queen bee, complete with stripes and a crown, and brings an assortment of costume choices for her audience.

Ashly says she dreams of building a small community educational center on her property. It would serve

as a space to educate people about pollinators, teach them to make bees-wax products like candles and even allow smaller beekeepers to extract their own honey. She is currently searching for a grant to make this vision a reality.

Apart from running the business, Ashly and her family also keep a small garden, live off the mountain as much as possible and distribute 800 copies of each Appalachian Voice to nearby locations. She believes that the newspaper helps spread important messages that are not always included in mainstream media. According to Ashly, as more people become aware of environmental issues, the "voice" calling for a better future will grow stronger.

"It's to educate our family and our community, so that we can work together," Ashly says about the paper. "That's why I do it. So that we can be this Voice!"

In her version of the future, the Appalachian region joins together to eliminate nonrenewable resources, preserving the "wild and wonderful" in places like West Virginia.

"We need our natural places," she says. "To be wonderful people, we're gonna need some wild. And we need to protect that."

Everything comes back to the bees. They dedicate their whole lives to the good of the whole, and Ashly believes that we should, too.

"I get emotional every time I say it, because, golly gee! If those little bees can do it, gee, why not us?"

## Making Progress Against Fracked-Gas Pipelines

The Federal Energy Regulatory Commission issued a stop work order for the entire Mountain Valley Pipeline on Oct. 15, thanks to a legal challenge filed by the Sierra Club on behalf of us and six other organizations. This could not have happened soon enough, as monitors continue to see excessive sediment flowing into waterways whenever it rains.

The Atlantic Coast Pipeline is also bogged down by legal trouble. With

numerous challenges pending, developers still cannot cross the Appalachian Trail or Blue Ridge Parkway. We are working with partners to urge Congress to prevent Atlantic Coast Pipeline developers from forcing through any legislation that would allow the pipeline to cross the AT.

In November, we joined North Carolinians at two different events to speak out against two fracked-gas projects, including the 73-mile

MVP Southgate extension. After hearing public concern, FERC also announced a delay to the MVP Southgate approval process. The agency's final Environmental Impact Statement was due in December, but now is scheduled for Feb. 14. This pushes a potential FERC certificate — a key approval for any inter-state pipeline — for MVP Southgate back to as late as May 2020. Read more on page 6.

Appalachian Voices is committed to protecting the land, air and water of the Central and Southern Appalachian region. Our mission is to empower people to defend our region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns.

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Kristian Jackson glides through the lower glades of North Carolina's Elk Knob State Park. Open for year-round recreation, Elk Knob is the second-highest point in Watauga County at 5,520 feet, and contains the headwaters of the North Fork of the New River. Photograph by Lynn Willis of High South Creative. You can view his photography at [lynnwillis.com](http://lynnwillis.com)

# Stand with us



Appalachian Voices' work is rooted in a passion for our communities, natural heritage, and future — the common wealth we share and must reclaim. Contributions from our members and supporters allow us to honor our commitment to this treasured region.



With your support, we are standing firm in our defense of Appalachia. Thank you for standing with us.

Join us at [AppVoices.org/donate](http://AppVoices.org/donate)



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