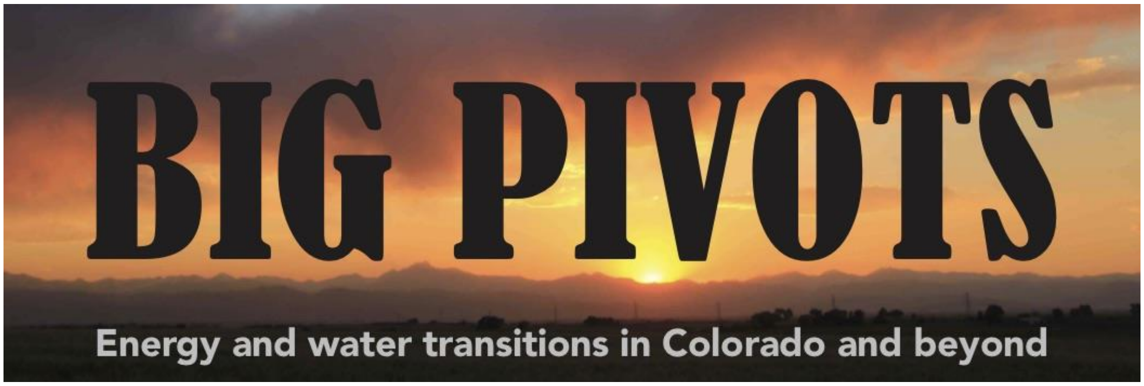

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Why $15 million for just transition won’t be enough

Nucla plant closed in 2019, but closings will soon accelerate

by Allen Best

A bill proposing to allocate $15 million toward just transition of Colorado’s coal-dependent communities and associated workers has been introduced in the Colorado General Assembly.

This should be understood as just the beginning of what will be needed, as Colorado begins laying down its giant fleet of coal-powered power plants in the next decade, says Dennis Dougherty, executive director of the Colorado AFL-CIO.

Dougherty co-chairs the just transition advisory committee created by legislators in 2019 when they set up the Office of Just Transition. The office is charged with identifying or estimating the timing and location of facility closures and job layoffs in coal-related industries and their impact on affected workers, businesses, and coal transition communities. It is also to help coal-dependent communities such as Craig, Hayden, Pueblo, and Brush create transition plans.

“This is a good step forward,” Dougherty told Big Pivots. “When we get closer to coal closures, we are going to see a magnitude of 10 to 15 times that amount annually.” He expects about $100 million a year will be needed as the coal plant closures accelerate in around 2025 and 2026.


Dennis Dougherty

Best of all, he said, would be if the federal government steps up to shoulder most of the financial burden of the transition from coal to other fuel sources, mostly renewables. The stimulus package provides one opportunity.

In Nucla and Naturita, where a coal plant and mine closed in 2019, local leaders hope state aid will allow them to continue efforts to fill the void created by the loss of coal jobs. See story on page 3, “No just in transition yet after coal plant closing.”

The bill, HB21-1290, has bi-partisan sponsorship, including Rep. Daneya Esgar, of Pueblo, and Sen. Steve Fenberg, of Boulder the Democratic majority leaders in the two chambers of the Colorado Legislature. Other sponsors are Rep. Perry Will, of New Castle, and Sen. Bob Rankin, of Carbondale. Both are Republicans whose districts include the state's coal plants and mines in the Yampa River Valley.

Of that proposed allocation, $8 million would go to a fund for assistance in development of rural economic diversification and transition roadmaps as was set forth in the final Just Transition Action Plan issued in December by the state's embryonic Office of Just Transition.

Dougherty emphasized that the goal will be to assist communities such as Craig in defining their futures, not impose plans from Denver.

"Our top priorities are equipping community leaders with the resources and staff they need to do impactful economic development work," he wrote in an op-ed with Beth Melton, a Routt County Commissioner, who is co-chair of the advisory committee.

Craig and Moffat County have had active transition planning for several years, although the urgency picked up after Tri-State announced in January 2019 its plans to get out of coal in Colorado by 2030. A transition committee has accelerated its work in the Nucla-Naturita area.

Pueblo recently has begun forming a just transition team, with representation from the city, the county, its two colleges, and the International Brotherhood of Electrical Workers, among others.

Another $7 million of state funds would be earmarked for a coal transition worker assistance program. The money could be used to expand existing apprentice programs, the training capacity of such programs, and the placement of coal transition workers into such programs.

The bill further stipulates that the money could be used to provide tuition reimbursement and provide for job search assistance and individualized financial transition. This would include job search assistance but also family assistance.

A maximum of 5% could be used for administrative purposes in the Office of Just Transition, to a maximum of $750,000. In a 2019 law, legislators created the office in 2019 and also an advisory committee with diverse representation.

The proposed law specifies that a "coal-transition worker" can include not just miners but also those working at power plants and in transportation, including railroads. Eligible workers would include those laid off after Jan. 1, 2017.

Colorado had several relatively small coal-plant closures prior to 2017 and one plant, the Cherokee power plant north of downtown Denver, whose fuel was switched from coal to natural gas.

Since then, Tri-State Generation & Transmission's small coal plant near Nucla, in southwestern Colorado, was closed in September 2019. Xcel plans to close Comanche 1 and 2, its plants near Pueblo, in 2022 and 2025. From 2025 to 2030, coal plants at Craig and Hayden will also be closed. Xcel plans to retain its Pawnee coal-fired power plant at Brush but switch the fuel to natural gas in 2028.

By decade's end, Colorado could just have one coal-fired power unit remaining, the Comanche 3, which was completed in 2010. But its status is uncertain, as it has been a lemon so far, with many costly repairs paid for by Xcel ratepayers. Minority owners of the plant are Intermountain Rural Electric Association and Holy Cross Energy.

No 'just' transition yet after coal plant closing at Nucla

Nucla has a broad main street. It was founded by socialists, who chose the name because they envisioned the town being the nuclear for the agricultural enterprises on the surrounding mesa. Below, a view of Naturita. *Photos/West Economic Development Corporation*

by Allen Best

At Nucla and Naturita, two small communities in Western Colorado, the transition from a coal economy has begun. As for a just transition?

No, not yet says Sarah Backman, a local attorney who, like many others in these towns an hour west of Telluride, wears a lot of hats.

Backman and others hope that the proposed Just Transition appropriation bill being heard in the Colorado Legislature for the first time on May 6 will deliver money for their communities, to continue the work already underway.

"I don't feel like we have a just transition, but hopefully if this bill passes, (the money) can be allocated quickly so that we can continue our efforts to transition our community," she says.

Nucla Station was a 100-megawatt plant that was closed by Tri-State Generation and Transmission in September 2019 in response to anti-haze enforcement by the federal government. The plant faced more stringent regulation of emissions of nitrous oxide, a component in haze, also called smog, and upgrades to the aging plant would have been expensive.

The first unit at Craig Station will also be closed by the end of 2025 as a result of the same settlement.

Nucla Station had 76 employees and the accompanying mine 35 at one time. At closing in November 2019, they had 35 and 23, according to Tri-State. Ten remain at work on reclamation of the sites.

As for the roughly $2 million in property taxes paid annually by Tri-State, that is mostly gone, too. The plant and mine represented about 43% of property tax valuation in the west end of Montrose County, where the communities are located.

In small communities, a few people tend to wear a lot of hats. It's often the same faces on the water districts, chamber, historical society – you name it.

Canyon country abounds west and north of Nucla and Naturita.

Backman is one of those in addition to being a young mother. She says that the prevailing vision in the communities is of developing an economy more strongly reliant on tourism. Tourism has its weaknesses, she says, but it's not boom or bust. And, if far off the beaten paths of Colorado, Nucla and Naturita have much to work with.

Telluride lies an hour to the east, and some in the community work there or have businesses catering to the Telluride economy. Moab lies 90 minutes to the west, and Grand Junction a little longer to the north.

There are slickrock canyons of the San Miguel River, the eye-pleasing forests of the Uncompahgre Plateau. In the west end of Montrose County, a place with 2,500 residents in the 2010 census, there is a place called Bedrock, located in the Paradox Valley, so-named for its queer geology. It is bisected by the Dolores River.

There's also a place called Uravan, from which the uranium used by Madame Curie in her experiments during the 1920s was mined.

The Manhattan Project of World War II spurred a boom in uranium mining. That boom petered out in the 1960s and 1970s, leaving widows who, as Peter Hessler documented in his 2010 piece in the New Yorker (and this writer learned in a 2006 visit), pined for the good old days and a return to uranium mining. It hasn't happened yet. See: "The Uranium Widows"

With this focus on tourism, not uranium, the effort is on drawing visitors for events such as the dark skies festival, scheduled for June. In this, the community will be in the company of Idaho's Sun Valley and Canada's Banff resort communities in celebrating dark skies.

Another multi-hatted community doer is Aimee Tooker, the president of the West End Economic Development Corporation since its founding in 2014.

"We have been working on economic development ever since then," she says. In

2017, the group got a $836,000 economic development grant to pay for programming funding., but that grant will be exhausted within the next year. She hopes that Colorado funding will continue to put wind into the sails of this effort.

The coal plant's closing was done two years earlier than expected. Tri-State was paying $2 million in property taxes to local jurisdictions. That's not a huge sum in many places, but these are small places. The population of Nucla is 644, and that of Naturita is 486.

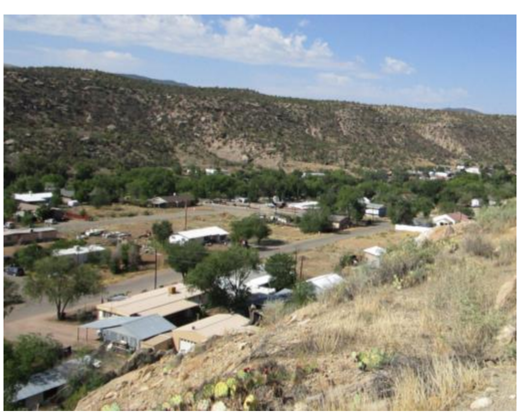
"This is 67% of the tax base of our emergency services district," says Tooker.

Tri-State is providing a $500,000 grant to the communities over the course of five years to West End Pay It Forward Trust. It's welcome but not enough, say those in the Nucla-Naturita community trying to build a bridge to a new, more diversified economy.

How will state funding help these two communities? "By keeping our boots on the ground," replies Tooker. She cites a plan to beautify the main street in Nucla.

Paul Major has worked with the Nucla-Naturita community. Until recently, he operated the Telluride Foundation, a philanthropy. He remains on Colorado's Just Transition advisory committee.

He credits Tooker, Backman, and others for their drive and ambition. Instead of whining about the closing of the plant, he says, they're working hard to make their community a great place to live. "It's a cliché, but they are really leaning into it," he says.



Better ozone ranking but still nothing to brag about

A new report from the American Lung Association finds that metropolitan Denver in 2020 had improved ozone levels over the previous three years but remained the 8th most ozone-polluted metro area in the United States, tied with Salt Lake City. Fort Collins ranked 17th.

The seven metro areas most polluted by ozone were all in California with the exception of one in Arizona.

No Colorado city, however, cracked the top-25 list in either shorter-term or year-round particle pollution.

In New Mexico, Las Cruces and neighboring El Paso ranked 13th for ozone.

By a different metric, that of counties, Colorado also looks poorly in the ozone rankings, as Jefferson County ranks 12th worst in the nation and Douglas County 22nd. New Mexico has two counties in the top 25: Doña Ana (Las Cruces at 28th and Eddy at 24th). The latter is the center of oil-and-gas drilling operations in New Mexico's part of the Permian Basin.

Solar back to full force in Colorado after slowdown

Colorado's clean energy sectors employed 58,182 at the end of 2020, according to a new E2 report. The state lost clean jobs but bounced back from June to December, the Denver Post reports.

Mike Kruger, president and CEO of the Colorado Solar and Storage Association, told the Post's Judith Kohler that the solar industry is at full strength.

"I expect, when the numbers come out, we'll be about a thousand folks down, from 7,000 to 6,000 in 2020. I think we'll be up from that this year, given that all my members are hiring for everything."

Twenty Mile, one of Colorado's last remaining coal operations. ***2017 photo/Allen Best***

United Mine Workers says it's time to accept that change has come

Union wants benefits for displaced workers, CCS incentives

"Change is coming, whether we seek it or not," says the United Mine Workers of America in a release last week as President Joe Biden convened an international conversation about climate change.

"Too many inside and outside the coalfields have looked the other way when it comes to recognizing and addressing specifically what the change must be, but we can look away no longer," said the organization in a position paper titled Energy Transition Initiative. "We must act, while acting in a way that has real, positive impact on the people who are most affected by this change."

Employment in the coal sector fell from nearly 92,000 nationally in 2011 to 44,100 last December, most of them hourly employees.

"Further government action in Washington has the potential to dramatically slash coal employment further, and soon," says the report.

Since 2012, more than 60 coal companies have filed either for Chapter 11 reorganization bankruptcy or Chapter 7 liquidation.

The UMW calls for three goals:

• Significantly enhance funding for research and development of carbon capture and storage with the goal of commercial demonstration of utility-scaled coal-fired CCS by 2050.

• The UMW also wants to see incentives for build-out of renewable supply-chain manufacturing in coalfield areas, providing hiring preferences for dislocated miners.

• Assistance for displaced workers in communities for training, continued benefits and direct grants to coal field counties, communities, and school districts for a 20-year period.

It proposes the income for this national assistance come from a "wires" charge on retail electric power sales paid by utilities customers of less than $3 per month for the average residential ratepayer.

The UMW paper says the union successfully argued for inclusions of a wires charge in the Waxman-Markey climate legislation as a way to encourage utilities to apply CCS technology to coal-fired power plants. That bill passed the House but was defeated in the Senate by a coalition of coal and farm states.

Can emissions be put into concrete blocks? Prize winners say yes

Tri-State G&T helped launch facility in Wyoming used by UCLA team

Winners of the Carbon XPrize announced last week both propose ways to use carbon dioxide emissions in concrete.

One contest winner focused on coal, and the other on emissions from natural gas. Each won $7.5 million in the contest that was launched in 2015.

CarbonBuilt, a team from the University of California Los Angeles, won the coal contest after testing the technology at Wyoming's Integrated Test Center. The test center, part of the Dry Fork Station coal plant near Gillette, was launched in 2015 with $15 million in funding, including $5 million from Tri-State Generation and Transmission.

The UCLA team figured out a way to take carbon dioxide emissions directly from a coal-burning power plant and infusing them into a new type of cement invented by the team. As the concrete hardens and gains strength, it permanently absorbs and traps the greenhouse gas.

Each concrete block stores three-quarters of a pound of carbon dioxide. A press release from UCLA notes that an estimated 1 trillion concrete blocks will be produced annually by 2027.

Gaurav Sant, a professor of civil and environmental engineering at UCLA, explained that the original inspiration for this idea came from seashells.

"Sea shells are made of calcium carbonate, which is nature's original cementation agent," he said. "We were really motivated by the idea of how seashells were held together. And that's how we really set about to turn carbon dioxide into concrete."

The UCLA researchers developed a new formula for cement, the binding agent in concrete. They used hydrated lime, or portlandlite, which can absorb carbon dioxide quickly, to replace traditional calcium silicate cement, known as ordinary Portland cement. Then the team created a method in which carbon dioxide taken directly from the flue gas of the power plant is quickly absorbed by portlandlite as the concrete hardens.

UCLA professor Gaurav Sant holds a brick produced in Wyoming using the technology his team produced. Photo/UCLA Samueli School of Engineering

There's a bonus to this method, says the UCLA team. The process reduces the amount of ordinary Portland cement needed to produce concrete by between 60% to 90%. The process also occurs at ordinary temperatures and pressures. This reduces the carbon footprint of the concrete. Traditional cement used in concrete causes nearly 9% of the world's carbon dioxide emissions.

In the press releases and other public statements, however, there was no mention of just how much of a dent this process could make in emissions from coal combustion even if all concrete bricks worldwide were made using this process.

Here's the beginning of the math: each brick can absorb three-quarters of a pound of C02. The Energy Information Administration reported that in 2019 each kilowatt-hour of electricity produced by coal combustion was responsible for 2.19 pounds of CO2. And 1,949 million short tons of C02 were produced.

That's 1,500 bricks per short ton, and 15 million bricks per million tons. That's a lot of bricks.

Will coal really be needed? An essay in the May/June issue of Foreign Affairs points to China's continued expansion of coal-burning unit. The essay by Andrew S. Erickson and Gabriel Collins says this: "China's net coal-fired power generation capacity grew by about 30 gigawatts over the course of the year, as opposed to a net decline of 17 gigawatts elsewhere in the world. China also has nearly 200 gigawatts' worth of coal power projects under construction, approved for construction, or seeking permits, a sum that on its own could power all of Germany—the world's fourth-largest industrial economy. Given that coal power plants often operate for 40 years or more, these ongoing investments suggest the strong possibility that China will remain reliant on coal for decades to come."

As for the natural gas prize, it was won by CarbonCure Technology working out of the Alberta Conversion Technology Centre in Alberta. CarbonCure demonstrated a technology that enabled production of concrete with a reduced water and carbon footprint. A precise dose of CO2 is injected into a concrete plant's reclaimer system, which contains the water used to wash out concrete trucks and mixers. The CO2 is converted to a permanently embedded mineral with strength-enhancing properties, which can then be incorporated into new concrete mixes.

If methane were at a dinner party in Colorado…

by Allen Best

If methane were a guest at a dinner party in Colorado, it'd be noticing that the hosts have started checking their watches and begun to make comments about a busy schedule the next day.

SB 21-246, introduced last week by Senator Majority Leader Steve Fenberg, is the latest evidence from legislators that they want methane, the primary constituent of natural gas, to begin thinking about moving on. The bill is scheduled to get its first hearing Thursday afternoon at the Colorado Capitol.

How legislators propose to begin crimping methane emissions in buildings

Instead of burning natural gas and other fossil fuels in buildings to provide heat, warm water and for cooking, Fenberg's bill would encourage use of electricity for those purposes. The process is being called beneficial electrification.

"Fossil gas and petroleum products will contribute to supplying Colorado's energy needs for many years to come," says the bill, submitted by Fenberg, a Democrat from Boulder. "Nonetheless, transitioning to clean electric homes and businesses is a critical strategy for improving public health and safety, saving energy, creating family-sustaining jobs, and helping the state meet its greenhouse gas emission-reduction targets."

The bill is premised on the expectation of a complete reversal during the next decade in how Colorado's utilities generate electricity. In 2020, coal and natural gas were responsible for 78% of electrical production in Colorado, according to the U.S. Energy Information Agency. By 2030, utilities responsible for nearly all of electrical sales expect to be at 80% renewables. Some aspire to even higher levels. Holy Cross Energy has adopted a 100% goal.

That language echoes the Colorado Decarbonization Roadmap that was issued in January by the state's energy office. Buildings lag electrical generation and transportation among the leading sectors for greenhouse gas emissions, but they're not far behind. Importantly, we don't replace buildings every 10 or 15 years, the way we do cars. That's why those working to reduce greenhouse gas emissions see need to begin work now on fuel switching in homes and other buildings.

The roadmap envisions electricity denting use of natural gas in the next 30 years. Coupled with electrification of transportation and population growth, the increased demand will cause demand for electricity to double, according to a study by the consulting firm E3 that was commissioned by the Colorado Energy Office

Colorado's attention to methane comes after a decade of growing concern about methane, both nationally and internationally. The New York Times on Sunday previewed what it called a "landmark United Nations report" that reflects a "growing recognition that the world needs to start reining in planet-warming emissions more rapidly, and that abating methane, a particularly potent greenhouse gas, will be critical in the short term.

While cutting back on carbon dioxide emissions will remain urgent, "it's going to be next to impossible to remove enough carbon dioxide to get any real benefits for the climate in the first half of the century," Drew Shindell, the study's lead author and a professor of earth science at Duke University (and a consultant on efforts to abate methane from coal mines in Colorado's North Fork Valley), told the newspaper.

"But if we can make a big enough cut in methane in the next decade, we'll see public health benefits within the decade, and climate benefits within two decades," Shindell said.

Fenberg's bill is not nearly as ambitious as the coming UN report might suggest is needed. However, it's bold in that it seeks to shift the direction by nudging gas utilities to offer more carrots to customers to nudge the shift along.

The primary lever for this shift would be adoption of a relatively new metric for evaluating the cost-effectiveness of demand-management programs, something called the social cost of methane. The new metric seeks to apply the real, long-term costs of greenhouse gas pollution to deliberations about utility programs.

In this it's similar to the social cost of carbon, an attempt to evaluate the real costs of carbon dioxide pollution.

Methane pollution, though, has a much higher price that reflects its short-term heat-trapping properties, about 80 times as powerful over the course of the first two decades, after which it has mostly dissipated. The cost assigned is $1,746 per short ton. The social cost of carbon was set by statute in Colorado at $46. Both, however, are subject to inflation.

Fenberg's bill falls short of mandating fuel switching. The bill explicitly prohibits the PUC from requiring the removal of gas-fueled appliances or equipment from existing structures or banning the installation of gas service lines to new structures.

Instead, the bill intends for the PUC to push the utilities to offer attractive programs to customers such that they will voluntarily use electricity in new construction or replace gas fixtures such as furnaces and water heaters in existing homes and other buildings.

This bill parallels in important ways HB21-1238, sponsored by Rep. Tracey Bernett and Sen. Chris Hansen. That bill also would adopt a social cost of methane as part of a broad overhaul of how Colorado calculates the benefits of demand-side management programs offered by its investor-owned utilities.

Several other bills also seek to tamp down emissions of methane and the combustion of natural gas.

Hansen, a Democrat from Denver, has a bill—now being reformulated—that calls for a renewable natural gas standard, somewhat similar to that adopted by Colorado voters in 2004 for electrical generation. The intent of SB21-161 is to encourage natural gas utilities with 250,000 customers or more to capture methane from dairies, landfills, and existing and abandoned coal mines in order to meet greenhouse gas reduction targets.

HB 18-1286 would require owners and managers of buildings larger than 50,000 square feet to benchmark energy use and comply with performance standards, tamping down greenhouse gas emissions.

SB21-108, submitted by Sen. Tammy Story, a Democrat from the Evergreen area, has safety as its motivation, but it would also result in fewer inadvertent emissions of natural gas from the transmission and distribution pipelines.

Separately from the legislative agenda, both the Colorado Air Quality Control Commission and the Colorado Oil and Gas Conservation Commission have adopted regulations in the last year that seek to crimp emissions of methane during extraction and transmission.

Biden climate advisor to launch 21st century transition conference

After a covid-induced hiccup in 2020, the 21st Century Energy Transition Symposium will return to something resembling its original format on Tuesday and Wednesday, May 4-5, but this time exclusively virtual.

Kicking off the session will be Gina McCarthy, the former chief of the EPA in the Obama administration and now the climate advisor to President Joe Biden. Posing questions to McCarthy will be Bill Ritter, the former Colorado governor and director of the Center for the New Energy Economy.

Gina McCarthy

Dozens of speakers will make appearances. I'm looking forward to hearing what Dan Sperling, the founding director of the Institute of Transportation Studies at the University of California-Davis, will have to say. I have interviewed him several times in the last 10 to 15 years, and he has a sober view of how fast this shift in transportation is likely to occur.

Another session with directors of the energy offices in Colorado, New Mexico, Oregon and Nevada may answer my question: How exceptional is Colorado in its energy transition activities, if at all?

And then are sessions on envisioning the building of the future, plus one about carbon sequestration.

A shorter session of technical rapid-fire presentations will also be held on May 14.

You can examine the agenda for yourself and also register (free) at the [conference website.]

Big Pivots asked Maury Dobbie, executive director of the Colorado Energy Research Collaboratory a few questions:

Has the focus of the conference shifted in, say, the last 5 years, and if so, how?

The first 5 years the annual symposium was called "The Natural Gas Symposium" because there was a lack of focus and events then on that topic.

Colorado State University hosted the event until the steering committee made up of people from different backgrounds decided we should broaden the 2016 event in more energy-related topics and call it the "21st Century Energy Transition Symposium."

In 2019 we chose to include the three other Collaboratory entities and the symposium was co-hosted by Colorado State University, University of Colorado Boulder, Colorado School of Mines, and National Renewable Energy Lab.

What session do you have this year that you wouldn't have conceived of having 5 years ago?

I remember talking with our steering committee about the session topics for the 2017 symposia. We collectively decided we should stay away from the word "climate" because it was controversial and we felt it would detract from our event. We used other words like decarbonization and talked about the grand challenges facing our country. Since 2011, we've always strived to drive our discussions towards solutions and collaboration. We've built a reputation for hosting a non-partisan, balanced discussions on different sides of the issues, timely, and educational symposia.

What caused the break-through on climate—and when was it?

We included discussions around stated climate goals in the 2019 symposium and further expanded how we were hoping to get there in the 2020 symposium that had to be rescheduled due to the pandemic. In our 2021 symposium we are very focused on climate and decarbonization solutions.

You have a little bit for a lot of people in this agenda. What do you have that is unlikely to be found at another energy conference agenda?

In 2016's symposium we pioneered the discussion around women in energy by hosting a lunch that we initially thought we'd only have 40 people attend. To our delight, it ended up being attended by over 300 and it has been one of the audience favorite sessions since.

In 2021 we are purposefully expanding our discussions by including an "Environmental and Energy Justice" session with the goal of increasing the future energy workforce with underrepresented groups and women.

Do you think Bill Ritter has any questions in mind that will make my newshound nose want to hear what Gina McCarthy has to say?

Yes.

Two regional cooperatives call for a federal clean electricity standard

Colorado has set out to do it, and so can the United States as a whole, says an April 16 letter sent to President Joe Biden.

The letter signed by two electrical cooperatives in Colorado and New Mexico, among 13 utilities nationwide, calls for a clean electricity standard among a broad suite of regulatory and legislative policies.

The letter asks for a federal standard requiring the electric sector be decarbonized 80% by 2030 as compared to 2050. That's the same target as Colorado has embraced for 99% of its electrical utilities.

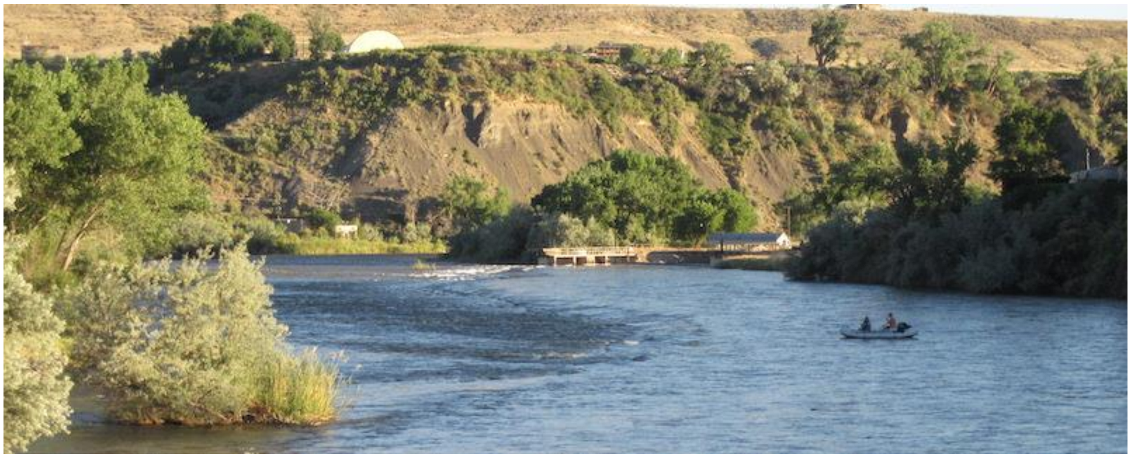
Some utilities, some states and some regions can move more rapidly, while others may have to move more slowly. "However, collectively, we believe this national level of deep decarbonization across the U.S. power sector by 2030, as a whole, is both achievable and necessary," the letter says.

The letter was signed by Colorado's Holy Cross Energy and New Mexico's Kit Carson Electric Association along with other utilities, most of them from the West.

Bryan Hannegan, chief executive of Holy Cross Energy, says he was contacted by the Clean Energy Group, a consortium of mostly nuclear and renewable heavy utilities. He shared it with others in his network. "Given the short turnaround we had, I suspect most received it too late to consider and respond."

"Deep decarbonization of the power sector by 2030 is critical to ensure that the power sector serves as an enabler for the achievement of net-zero economy-wide emissions by 2050 and that the U.S. remains on track over the next decade," the letter says.

But the utilities do see a potential role for carbon. They call for policies that provide incentives for zero- and low-carbon resources and technologies to support greater deployment of such resources, including decarbonized hydrogen demonstration projects and carbon-capture projects as well as policies that reflect the role of both new and existing zero-emitting generation."



How worries about compact call on the Colorado River are like the ceiling ax

By George Sibley
Writers on the Range

Some Colorado River tribulations today remind me of a folk story: A young man went to visit his fiancé and found the family trembling and weeping. They pointed to the ceiling, where an axe was embedded in a rafter.

"That could fall," the father quavered. "It could kill someone!"

Puzzled, the young man climbed onto a chair, and pulled the axe out of the rafter. Everyone fell all over themselves thanking him. But he quickly broke off the engagement, concerned that such inanity might be inheritable.

This resembles ongoing dithering over the 1922 Colorado River Compact, a 99-year-old agreement among the seven states through which the Colorado River meanders, on how the consumptive use of the river's water should be divided to give each state a fair share. The agreement was necessary to get federal participation (money) to build dams to control the erratic river.

The best they were able to do, given the sketchy information they had about each state's future development and also about the flow of the river, was to divide the river into two "basins" around the natural divide of the Colorado River canyons: Colorado, Utah, Wyoming and New Mexico in the Upper Basin; and California, Arizona and Nevada in the Lower Basin. Each basin would get to consume 7.5 million acre-feet of the river's water.

This placed a responsibility on the Upper Basin states to "not cause the flow of the river at Lees Ferry (the measuring point in the canyons) to be depleted" below the Lower Basin's share.

A generous reading of that lawyerly clause in the Compact would say the upper states should just be careful that their water development doesn't dip into the lower states' allocation.

A less generous reading would say that if for any reason the flow at Lees Ferry fell below the average of 7.5 million acre feet — whether due to over-appropriation by the upper states, or to a natural cause like a 20-year headwaters drought — the lower states would place a call on the upper states, which would have to cut their own uses and send their water downriver, whether they "caused" the shortage or not.

To maintain that flow in a drought, the upper states would bear the full pain of the drought for the whole river.

Guess which interpretation the upper states chose for their own 1948 compact? Never mind that a Compact call led by California for its share of water is nowhere mentioned in the 1922 Compact. The axe was planted in the rafter.

They might better have asked how the 1922 Compact creators themselves envisioned the unknown future. The transcripts of the 27 Compact meetings show that the seven state commissioners and their federal chairman, Herbert Hoover, were concerned, as late as their 21st meeting, that they did not know enough about the river's flows to make a permanent equitable division of the waters.

Hoover summarized their concern, and their intent: "We make now, for lack of a better word, a temporary equitable division," leaving the further apportionment of the river's use "to the hands of those men who may come after us, possessed of a far greater fund of information." They even included in the Compact (Article VI) instructions for reconvening to consider "claims or controversy... over the meaning or performance of any of the terms of this compact."

By the drought years of the 1930s, it was already obvious that the 7.5 million-acre feet Compact allocations were unrealistic. That would have been a logical time for the upper states to pull the axe out of the rafter, before the river was so fully developed.

They didn't, and as the Compact began to take on the aura of something carved in stone on a holy mountain, the fear of the "Compact call" gradually descended into expensive paranoia.

The vastly expensive 24 million acre-feet of storage in Powell Reservoir just

Cabbage fields grown with Colorado River water near Yuma, Ariz. Previous page, Colorado River at Palisade, Colo. Photos/Allen Best

upstream from Lees Ferry was created there to fulfill the Upper Basin's self-assumed "delivery obligation," come hell or low water.

Now, hellish low water has come to Powell, and Upper states are developing costly "demand management" programs whereby someone yet unspecified would pay ranchers to fallow fields so their water can be "banked" in Powell against the dreaded "Compact call."

The seven states are now — finally — initiating negotiations on a more reality-based governance of the Colorado River. Let's hope they have the good sense to pull that axe out of the rafters before negotiating fair water use under it.

George Sibley is a contributor to Writers on the Range, a non-profit dedicated to spurring lively discussion about Western issues. He has written extensively about the Colorado River for the last 50 years. Among the books he has written is "Water Wranglers."

No more closed-door director meetings at Tri-State and clarity for co-op directors

by Allen Best

Depending upon who was speaking during recent legislative hearings, Colorado's electrical cooperatives and Tri-State Generation and Transmission are either shining monuments of democracy or darkened corridors prone to skullduggery.

The bill in question, HB21-131, "Cooperative Electric Associations Governance Requirements," sailed through key legislative committees in both the House and Senate with near unanimous votes. The only significant opposition was in the House, where half of Republicans opposed it. It got unanimous Democratic support. In the Senate, only 2 Republican senators voted against it.

The take-away is one of improved accountability

The bill had bi-partisan sponsors. Singing the virtues of their bill to the House Energy Environment committee on March 10, were Rep. Judy Amabile, a Democrat from Boulder whose district also includes Grand and two other counties, and Rep. Marc Catlin, a Republican from Montrose. Both emphasized transparency.

"When you make us guess as citizens, we will always guess wrong, that something is going on behind that closed door," said Catlin, who represents the service territory of Delta-Montrose Electric. That co-operative had its quarrels with Tri-State before splitting the sheets formally in 2020 with modest words of affection.

Senate sponsors were Faith Winter, a Democrat from Westminster, and Don Coram, a Republican from Montrose

The bill—which was signed into law on Thursday by Gov. Jared Polis—had many provisions without controversy.

For example, it amends the deadlines and requirements for notice of elections by electrical co-operatives, providing more breathing room in their timelines. Co-ops must be sure to have written policies governing conflicts of interest and compensation for directors. They must post the rates and their net-metering policies on their websites.

Electrical cooperatives were authorized by Congress in 1936 when federal aid was extended to rural areas to deliver electrification.

Every customer of the cooperative is a member. Further, every member has a right to vote for directors who have responsibility for guiding policy and operations at coops in places like Holyoke and La Junta, Meeker, and Cortez.

In Colorado, they range in size from 2,500 members to 165,000 members. Altogether about 20% of Coloradans get their electricity from cooperatives.

This is democracy at its most elemental form, but coop elections have rarely provoked much interest. This continues even during a time of surging interest in climate change and also of profound changes in energy.

> "Before Duane Highley became CEO, Tri-State excluded co-op members from attending its board meetings…"
> **Joe Smyth**
> ***Clean Cooperative***

Bryan Hannegan, chief executive of Glenwood Springs-based Holy Cross Energy, told legislators on April 6 that voter turnout has never surpassed 9% of its 45,000 members in the Eagle, Roaring Fork, and Colorado River valleys—this despite efforts via social media, advertisements, and other means to get members interested.

Electronic voting will be allowed by this bill, a potential boost for election turnouts that rarely draw much interest.

Two provisions were directly aimed at Tri-State, the wholesale provider for 18 of the state's 22 cooperatives. Together they will require Tri-State to operate more like its member cooperatives and, for that matter, like other elected bodies in Colorado.

One requires board meetings of Tri-State be open to the public, as they have been among cooperatives—at least in theory—since 1983.

"The problem is not all of our members take advantage of that, as Dr. Hannegan has mentioned," Geoff Hier, director of government relations for the Colorado Rural Electric Association, a consortium of the electrical co-ops and Tri-State, testified before a Senate committee on April 6.

Actually, I'm not sure the doors at local cooperatives were necessarily always wide open. I admit that I never tested the open-door policies of the electrical cooperatives during my 20 years of newspapering in mountain towns. We sometimes even covered sewer and water district boards, but no coops. There were rarely, if ever, rival candidates, nor do I remember controversy.

My impression in recent years—confirmed by a former employee of an electric cooperative—was that co-ops were not accustomed to having people show up for meetings. In some cases, if somebody had business, they were escorted to the meeting for that item, then escorted out. You couldn't just show up and listen like you can to a town council meeting or, for that matter, sessions of the Colorado Public Utilities Commission.

As for Tri-State, it clearly had a closed-door policy. This is despite the testimony of Duane Highley, chief executive of Tri-State since April 2019. At the March legislative committee meeting, he said that members had always been invited to the organization's board meetings.

Joe Smyth, a Fraser resident, had a different experience, with evidence in e-mails.

"Before Duane Highley became CEO, Tri-State excluded co-op members from attending its board meetings, and even moved to exclude co-op members from its annual meeting in 2019," Smyth responded in an e-mail. "(Highley) may not be familiar with that history, but I'd hope Tri-State staff would provide their CEO with accurate information to ensure he doesn't present false claims to Colorado legislators."

Smyth, who has dogged Tri-State and the coop world at a website called Clean Cooperative, had written about exclusion of co-op members at the 2019 annual meeting in a posting on March 21, 2019.

The post includes an excerpt from an e-mail message from Rick Gordon, the president of the Tri-State board: *"Our Annual Meeting is not a public meeting. It is open to our member directors, managers, member system employees, and invited guests."*

Was Smyth excluded because his electric account was in somebody else's name? No, he says, it's in his name. And he says that Lee Boughey, chief communications office for Tri-State, knew that he was a member of Mountain Parks Electric, because of an earlier exchange when Smyth attempted to attend a monthly board meeting.

(I had attempted to attend the same annual meeting in 2019 but was refused. However, I was not a member of a coop).

Highley's statement was also disputed in Taos, N.M. "You had to be invited to get into a meeting," says Luis Reyes Jr., the chief executive of Kit Carson Electrical Cooperative, a member of Tri-State from 2003 until 2016 and Kit Carson's representative on the board for two years.

This new law makes it crystal clear that Tri-State board meetings, all of them (unless called into executive session by a two-thirds vote, for specific purposes) are open to members and consumers—but also the news media. (The bill does not define what constitutes news media, a phrase with a broad range in the digital era, as witnessed by Facebook "news" feeds).

The second provision aimed specifically at Tri-State has to do with the complaint among some cooperatives that Tri-State managers have stepped over the ethical line in attempting to twist the arms of board members from the individual coops. In this view, told often among those critical of Tri-State, members on the Tri-State board were told they had to vote for the interests of Tri-State first and foremost.

This grievance among some cooperatives with Tri-State flared during the House committee hearing in testimony from cooperative members from Larimer County to Montezuma County.

Guinn Unger, a former board member of La Plata Energy, said representatives of member cooperatives at Tri-State are told they have a fiduciary duty to Tri-State "and they can't vote in the best interests of the cooperative they represent." Others, mostly with less direct knowledge, said much the same thing.

Nobody offered specifics. I made inquiries. I was told, off-the-record, by individuals from two separate coops that Tri-State management had in fact made a habit of pressuring local representatives to vote in ways that benefited Tri-State, not their member coops. But, when I pressed for on-the-record statements—well, the co-op members never got back to me.

Luis Reyes Jr.

The strongest statement I got was from Reyes, the CEO of Kit Carson. He recalls lectures from a Tri-State attorney about the need to vote for what was best for the interests of Tri-State as a whole as opposed to the interests of Kit Carson. "You are wearing your Tri-State hat today," he says he was told.

Reyes describes softer but no less muscular tactics of intimidation.

"They isolate you, and all of a sudden you're not one of the boys. You're not one of the crowd. You get the visit from the attorney reminding you of your Tri-State responsibilities," he says. "It does wear on you."

Most of the time, the interests of Kit Carson as an individual member and those of Tri-State were the same. However, Kit Carson bucked Tri-State in several cases. One was on rate increases, and the second was Tri-State's decision to buy into the coal-burning Springerville coal plant in Arizona. That was in 2006 or 2007. In both cases, Tri-State staff failed to prove to the satisfaction of Reyes the necessity of the actions. The response was some legal saber rattling, though nothing happened.

My conversation with Reyes occurred in mid-April. A month earlier, I had inquired of Tri-State after the first legislative hearing. Mark Stutz, a company spokesman, responded with this statement:

"The original assertions concerning fiduciary responsibility by any board member to Tri-State are without merit, and show a lack of understanding of Colorado statutes. It is not true that Tri-State Board members are required to represent the interests of Tri-State and not the interests of their local co-op. Colorado law requires corporate directors to exercise their fiduciary duty to any and all corporations on whose board they serve. That means that Tri-State directors who are also directors of their local co-op must exercise their fiduciary duty to both Tri-State and their local co-op."

At the Senate hearing on April 6, Highley spoke to this most directly upon questioning from Sen. Dennis Hisey.

"They are there to represent the interests of their distribution cooperative and their friends and neighbors, and they do that, while simultaneously representing the interests of Tri-State. I think this bill clarifies that," answered Highley. "They are not to give a priority to either organization, and we believe that's how that should work."

The soon-to-be-adopted law specifies that "if a director serves on the board of both a generation and transmission association and a distribution association, the director owes fiduciary duties to both associations and shall not be required to give priority to the duties the director owes to one association over the duties the director owes to the other association."

The take-away here is one of heightened accountability. The first big step was in 2019, when legislators required Tri-State to submit electric resource plans to the state's Public Utilities Commission, as is required of the investor-owned utilities. The open meetings clearly is another step.