

EBA BRIEFTM

A Quarterly Publication of the Energy Bar Association



EBA PRESIDENT'S INTRODUCTION: DIVERSITY & INCLUSION SPECIAL ISSUE

Diversity, inclusion and matters of energy justice are critically important to the Energy Bar Association, as they should be to all of us. EBA's core values commit us to creating an environment that facilitates robust dialogue and debate with diverse perspectives. They also commit us to growing an inclusive community that connects and engages a vast and diverse array of energy industry participants and thought leaders. These values are represented in our Diversity & Inclusion Policy that was adopted in 2017 under the leadership of former President, Emma Hand.

2020 has been a year that has tested our resolve in many ways. We have been beset by a global pandemic that takes a disproportionate toll on racial and ethnic minority groups. We have seen the economic and educational fallout from COVID-19 disproportionately impact the already under-privileged — in lost jobs, limited access to the internet, even lack of electricity and reliable light to study by. We have lost a Supreme Court Justice much loved by many and deeply respected by all. And we have witnessed, time and again, the tragic killing of black citizens that has sparked what may be the largest movement in United States history.¹

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At the beginning of the summer, past and present leaders of EBA came together in the face of these current events to condemn racism and discrimination in all its forms and rededicate ourselves to EBA's core values. In keeping with that commitment, I asked the editors of *EBA Brief* to dedicate a special issue to exploring perspectives on diversity, inclusion and energy justice.

I couldn't be more impressed with the way this issue turned out, featuring insights from six accomplished authors. The articles included here represent perspectives from seasoned industry leaders to law students just embarking on their careers, from leaders in urban utilities to leaders in rural electric cooperatives, and from coast to coast. I hope that you find them as thought-provoking as I do.

Sincerely,



Jane E. Rueger
President, Energy Bar Association

¹ Larry Buchanan, Quoc Trung Bui and Jugal K. Patel, N.Y. TIMES, "Black Lives Matter May Be the Largest Movement in U.S. History," July 3, 2020, available at <https://www.nytimes.com/interactive/2020/07/03/us/george-floyd-protests-crowd-size.html>.

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ACHIEVING EQUITY IN OUR INDUSTRY

— BY PAULA R. GLOVER

The time we're living in presents a powerful opportunity for transformation. Companies across the energy sector have revolutionized their operations as a result of COVID-19, proving that they can adapt and make big changes quickly. Meanwhile, protests against racism have filled streets across the country and around the world – and numerous energy companies have vowed to work for lasting change.

I have no doubt that many energy leaders want to be a part of the solution. They recognize that racism has been a part of the structures that define American life since its founding, and that businesses have a lot of work to do to weed out the inequities that persist. Energy leaders have an opportunity to acknowledge and address these problems inside their organizations. But in order to do so, they need to begin with a new perspective.

Creating equitable workplaces goes far beyond the kinds of issues that usually get attention, such as recruiting diverse candidates. In fact, compared to the most important work that needs to be done, that's the easy part.

The more important work runs much deeper. It requires fearlessness within our organizations. It requires speaking up and, more importantly, *listening* – even, and especially, when what someone else has to say may make you uncomfortable.

It's incumbent on all of us to rise to this challenge.

Equity Before Diversity & Inclusion

The terms “diversity,” “equity,” and “inclusion” are often used interchangeably. Given that it's only in recent years that businesses have begun prioritizing these issues, it's understandable that they get grouped together. But they're different. To build the kinds of organizations we need in order to meet the challenge before us, we must start with an understanding of these often-confused terms and how they fit together.

“Achieving equity is the most complex.”

Achieving *diversity* in our workplaces means having a wide variety of backgrounds, experiences, and perspectives among staff. Achieving *inclusion* means creating a culture in which everyone feels welcome to share their ideas and contribute. Achieving *equity* is the most complex. And it has to come first for substantive change to take place. An equitable system, as Merriam-Webster puts it, deals “fairly and equally with all concerned.” It's a matter of “justice,” including “freedom from bias or favoritism.”

"It's not all about pay."

It's *not* all about pay. In recent years, businesses have been called out on pay inequities, often based on gender. But while pay is the most easily measured aspect of inequity, it's only a small part of the inequities that still too often rule the workplace.

In a truly equitable system, everyone faces the same consequences for their achievements, failures, and work – no matter what they look like. Their experiences in similar situations come out the same. And there's transparency within the organization so everyone can know what those repercussions are.

The same goes for promotions. In a truly equitable system, when a group of executives or managers get together to decide which employees are ready to join the ranks of leadership, the conversations are the same no matter the candidate's race, gender, sexual orientation, religion, or anything else about them.

Many organizations in all sectors, certainly not just energy, believe they've already created an equitable playing field so that everyone is judged fairly, and by the same criteria. But all too often, this is not the case.

Sometimes, the biases that prevent this are blatant – for example, when male executives question whether women “belong” working on oil rigs or in mines. At other times, it's a matter of

unconscious bias, such as when an African-American is described as “aggressive,” while a white person exhibiting the same trait is described as “assertive.”

Non-Defensive Listening: Not for the Meek

This is why creating equity, diversity, and inclusion can't be achieved simply through metrics. Inside our organizations, employees have experienced all sorts of problems that prevent these ideals from becoming a reality. To learn what those problems are, leaders have to be ready to do something that many avoid: listen, with an open mind, to things they may not want to hear. After all, you can't change something that you don't identify.

Inside every company, leaders and managers should ask people to share all the challenges they've faced in getting equal opportunities. Allow them to tell you the truth, no holds barred. Provide them with psychological safety, so they know there will be no negative repercussions for stating, in the bluntest terms, what their struggles have been.

Listen in the most non-defensive way possible. When you ask these questions, you're likely to hear things you don't like. You'll also probably want to insist that certain accusations you hear can't possibly be true. When this happens, you'll need to work especially hard to be empathetic, patient, open-minded, and truth-seeking.

As you keep listening, and keep hearing similar problems expressed by multiple people, you'll discover that, more often than not, these problems are real.

Reflect and Act

Once these problems are brought to your attention, it's time for reflection. Business leaders, together with their leadership teams, need to discuss what they've learned through these conversations, and ask how their employees' stories align with the values the company professes to stand for.

To help bring this point home, I sometimes share a story of the church my husband and I attend. Each week at the service, the congregation welcomes people. Together, we say we hope newcomers will find the church to be "warm and loving." One day, after we had been attending for several years, I turned to my husband and said that I didn't believe it actually was a warm and loving environment. We had been coming to this congregation for years, and still only a few people even knew my name.

This is key. Sometimes, a business is so busy professing what it stands for that it doesn't realize when it fails to live up to those standards. When you discover this through conversations with employees, it's time to reflect – and then act.

The kind of action that's necessary will depend on what the problems are. You may need a new form of racial sensitivity training, or flexibility to ensure working parents are able to get their jobs done while still being present with their families, or much stronger action to weed out harassment. Your employees will have ideas. Listen, reflect, and then do the work.

Look Outward

The information that you'll need in order to go through this process won't come exclusively from inside your company. It will also come from those who interact with your business – from suppliers, to contractors, to customers, to other businesses that

"Do they see your company as representing the values you aspire to."

work with you. Do they see your company as representing the values you aspire to?

When you ask and listen, some of what you hear will be broad or will reflect a general sense that's different from yours. But some people will also have specific experiences that speak to these problems. Perhaps a customer was mistreated, or a contractor overheard an employee using offensive terminology. Perhaps a supplier lost their contract with your company and believes there was discrimination involved.

When these instances and allegations are brought to your attention, take a microscope to them. Really dig in. Learn everything you can from them.

None of this is to say that every complaint will have merit. Sometimes, people are simply wrong, or they misperceive something as a slight when it wasn't. Listening, reflecting and acting does not mean accepting everything you hear as fact. But it does mean being open to the possibility that these concerns speak to real problems that prevent true equity from taking root.

Look Across Categories

As you go through this process of inquiring, listening, and looking outward, it's crucial to keep in mind that no one's experience is defined entirely by just one facet of who they are. So, as you ask people

about their experiences with your company, both from the inside and from the outside, it's important to avoid classifying people into simple groups.

For example, a line engineer may open up about her experiences trying to advance her career in your business. She may have run into obstacles based on her gender. Or perhaps, being Hispanic has led her to face challenges. Maybe she's also part of the LGBTQ community.

"To learn about obstacles to equity, it's important to see each person as an individual."

I've seen times that this intersectionality leads to problems for people. For example, when a Black disabled contractor wants to get certified as a minority-owned business and apply to do business with an energy company, which minority "bucket" should she place herself under? She may only have enough money to pay for one type of third-party certification. So which type of business should she be certified and register as? Which box does she check on a form, knowing that doing so may automatically put her into a list of suppliers in one category but not the other?

To learn about obstacles to equity, it's important to see each person as an individual. When you ask a person about their experiences, use open-ended questions that allow them to share any part of

who they are, and to explain how those different parts may be affecting their experiences.

Everyone Can Be An Ally

Leaders are charged with the task of making structural changes that will make the company equitable, diverse and inclusive. But at every level of an organization, anyone and everyone can, and should, be part of the effort.

That includes being conscious of the fact that your colleagues may have things on their minds that are affecting them in profound ways. That's certainly been the case for much of this year, as the protests against killings of innocent Black people by police have stirred up a lot of emotions, particularly for African-Americans. Many white people simply haven't known what their Black colleagues are experiencing.

In 2015, after Freddie Gray was killed, an executive I worked with told me he didn't understand why so many people were upset and protesting. "I do," I told him. So, he asked me whether I'd ever had an interaction with the police that made me fear for my life. "Yes," I told him.

He was taken aback. The moment served as a sign. You never know what experiences your colleagues may have had until you ask. It was an opportunity for me to show him that the experience I have walking through the world each day is different from the experience he has. He got a chance to learn from me, and it helped broaden his perspective.

I've also been on the other side, the one realizing a perspective I hadn't considered. Last year, I heard a speech given by Wally Haase, the General Manager of the Navajo Tribal Utility Authority, at an event held by the American Public

Power Association. Mr. Haase described his efforts to bring power to over 15,000 Navajo families who have never had access to electricity. My heart broke. It hadn't occurred to me that in the United States of America, we still have entire communities with no access to electricity – which can also mean a lack of clean water and all sorts of other tools that access to electricity provides. It helped me realize that I can be an ally for indigenous people, and work to make sure they're a part of our industry's efforts.

“Being an ally also means speaking up.”

Being an ally also means speaking up. If someone does or says something offensive, call it out, and show your colleagues that you're there for them. That's a demonstration of allyship. You're effectively saying: “This may not be directed at a group of people I'm a part of, but I won't accept it on behalf of another person either.”

However, there are also times when this is best done through private conversations. I once had a member say something at a meeting that I could not believe came out of their mouth. Later, I pulled the person aside and explained that the comments were offensive. (In that case, I did not know whether anyone else was offended by what this person had said, but I wanted to make sure this person never said it again.)

It takes courage to do this. It's a kind of courage we show in other ways. Just like the adage “if you see something, say something,” when applied

to crime or terrorism, it's a matter of being aware and taking action.

Yes, Measure Too

None of this means that efforts toward making recruiting and promotions equitable are irrelevant. These more measurable factors matter, and there's plenty of room for improvement.

For example, when business leaders complain that they're not finding enough qualified candidates of color for entry-level positions, I ask where they're looking. To attract a diverse workforce in energy, our organizations need to expand their recruiting efforts to a wide variety of schools, including HBCUs (Historically Black Colleges and Universities). And we need to tell officers at all the schools we visit that we want as diverse a slate of candidates as possible.

We need to look at the mid-level positions as well, determining the diversity (or lack thereof) at all career stages, in order to get rid of blockades to advancement.

And, yes, we need to measure our successes at all levels, all the way up through the C-suite and board of directors. And we should be held accountable for this by our investor communities and all our stakeholders. Equity, diversity and inclusion are proven to increase profits and make a business stronger and more resilient.

But we must start with the toughest, most important task we face as an industry. Until we're ready to discover and acknowledge what's holding us back, we won't get the improvement we need. This is the new paradigm. It's what I call the “secret sauce” – every one of us doing what we can to carve out a path for people who aren't like us. Together,

we can create spaces for each other in our organizations. We can encourage people from all walks of life to join us, bringing their wealth of life experiences, knowledge, and perspectives with them.

When we do that, we'll transform in the best ways possible.

ABOUT THE AUTHOR

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For a full bio, please visit [here](#)



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ACCEPTING THE CHALLENGE

— BY JOANN CHÁVEZ

As I reflect on 2020 outside of the COVID-19 pandemic, I think of it as the year that many of us recommitted (and some newly committed) to paving the way for a just and equitable society. Our industry provides a rich and powerful platform to actively influence this movement. Our significant investments and growth provide us with unique employment, minority supplier, and community investment opportunities. Many companies and firms, like mine, have written commitments to the movement. We've realized that this is not just our opportunity, but our obligation, collectively and individually. Our challenge: Are we doing enough?

When asked to author this piece, I paused. Like most of us, I am not an expert on diversity, equity, and inclusion, nor am I civil rights attorney. I am the senior vice president and chief legal officer for DTE Energy and a Latina senior executive committed to action. My role and passion in this space, combined with DTE's unwavering commitment to be a force for growth and change, provides me a powerful platform.

My collective experiences – first generation college graduate, low-income upbringing, workplace conscious and unconscious biases, first and only Latina most of my career, sexism and racism, in work and play, and each of their corresponding unintended consequences – will truly transform a person. My journey has made me more valuable as an employee,

as a leader, and now as an advisor to our CEO, management, and board of directors.

DTE's utilities serve over 3.1 million customers in Michigan, a state where one in four residents is ethnically or racially diverse,¹ and one in seven residents is African American. Detroit, one of the largest cities in our service territory, has a black population of 80%, and a poverty rate of almost 40%.

Throughout my time at DTE, one of our top priorities has been to build an inclusive and diverse workforce. We have focused on creating a workplace where everyone feels safe and welcomed and has a sense of belonging. We understand that having a diverse workforce makes us a better company because diverse perspectives improves our ability to innovate, solve problems, and better serve our customers. We know that when our employees represent the diversity of our customers, we provide better service.

"We know that when our employees represent the diversity of our customers, we provide better service."

As with many corporations, our purpose and aspiration have been clear for many years, and still the events of 2020 have propelled us onto a platform to do more; we know that we must act – it is our obligation.

Our Response to Racial Injustice, Violence, and Unrest

In late May, as protests began around the country and in Detroit in response to George Floyd's murder, racial violence and injustice, DTE's President and CEO Jerry Norcia reached out to our community and government leaders to offer support and resources.

Mr. Norcia, along with Vice President of Human Resources and Chief Diversity Officer Diane Antishin, also issued a letter to DTE employees reaffirming DTE's commitment to stand united in rejecting all forms of discrimination and violence in our workplace and in our communities, and recommitting to a diverse, equitable, and inclusive environment.

And in June, DTE Executive Chairman Gerry Anderson joined Mary Barra, CEO of General Motors, Bill Ford, Executive Chairman, of Ford Motor Company, and six other business leaders in a press conference hosted by Reverend Dr. Wendell Anthony, President of the Detroit Branch of the NAACP, and Detroit Mayor Mike Duggan, to denounce racism and stand united as a force for positive change and justice in our communities.

As a company, DTE stands united in rejecting all forms of discrimination, racism and violence in our workplace and in our communities – we are decidedly and proudly anti-racist.

DTE Workforce Efforts

The way we train and develop our workforce is critical to building a diverse and inclusive business.

Workforce Development

DTE's work to lead with our purpose, create a culture of service excellence, and build a diverse and inclusive workforce has influenced our hiring strategy. We're deliberate in our recruiting efforts to look at all aspects of diversity, from gender and cultural to differently-abled diversity. We must be innovative and find creative ways to attract diverse talent who represent the communities we serve.

"We must be innovative and find creative ways to attract diverse talent who represent the communities we serve."

Youth Employment

DTE is a top youth employer in Detroit and the state of Michigan. We understand that youth employment programs are key to a strong and vibrant local and state economy.

We have provided job opportunities to 1,500 youths each year, including 900 college and high school students through summer and year-round employment programs, as well as funding another 600 jobs at other organizations in Michigan through the DTE Energy Foundation.

Approximately 250 of DTE's students receive additional assistance to help prepare them for the workforce: DTE provides mentors and services such as resume writing workshops, interview skills, financial literacy and transportation to help level the playing field for these students.

Career and Technical Education in Detroit

As development has gained momentum in Detroit and across the state, companies have struggled to fill the skilled trades positions needed to complete this work.

DTE partners with Career and Technical Centers in Detroit and technical schools around Michigan to update their programs, add new equipment, and rebuild their infrastructure to help prepare young people for a career in skilled trades.

In recent years, our company has hired nearly thirty returned citizens transitioning back into our communities after a period of incarceration – and almost 90% of those employees are still working with us. Last summer, we partnered with Parnall Correctional Facility in Jackson, Michigan to train and prepare our first class of nineteen men for in-demand careers in tree trimming.

We expect forty people per year to graduate from this program, and we hope that is just the beginning.

Supplier Diversity

There are many opportunities outside of your own workforce to support diversity and inclusion. DTE has a long history of pursuing partnerships with minority, women and veteran-owned businesses and encouraging diverse companies to explore supplier opportunities.

In 2019 we spent more than \$600 million – nearly 20 percent of our overall external spend – with certified minority and women-owned businesses. Also, in 2019, we were recognized with 14 supplier diversity awards. Our spending with diverse suppliers has increased by 50% since 2013.

Last spring, we also committed to spend at least \$500 million annually with businesses owned by women and minorities over the next five years.

For diverse suppliers, DTE's focus on outreach, mentoring, advocacy, and training means new opportunities to succeed and grow. An inclusive supply base brings innovative ideas that add value, so we can provide exceptional service for our customers. For our communities, supplier diversity creates jobs, expands the economy, and builds the capacity for revitalization.

*"For our communities,
supplier diversity creates
jobs, expands the economy,
and builds capacity for
revitalization."*

DTE Energy Foundation

Among the state's largest foundations committed to Michigan-focused giving, the DTE Energy Foundation supports initiatives focused on arts and culture, community transformation, economic progress, education and employment, environment, and human needs. Not only do we want to create an economic impact across the state, but we want to provide hope and inspiration to communities making a difference. The DTE Energy Foundation supports events and programs that helped to generate more than \$50 million in local economic activity in the past year.

In 2020, our world saw a crisis unlike any we've seen in our generation – and this unprecedented crisis has underscored the pressing need to work for justice and equality on a wider

scale. DTE worked with over 1,000 nonprofits across the state to help Michigan residents weather this storm: providing 3 million meals, donating 2 million KN95 masks, donating 51,000 tablets to Detroit students, helping customers with bills and ensuring our employees that their safety was, and always will be, our number one priority.

My Personal Work

Throughout my career, I have worked to ensure that diverse employees did not travel their road alone. I've helped lead two affinity groups at DTE: the Women of DTE, and our Hispanic affinity group "Somos." I also co-lead our DTE women of color circle, a forum for diverse women leaders to openly and honestly share and inquire in a safe space.

In 2010, I created the Summer Talent Exposure Program ("STEP"), a college summer internship program that provides under-represented college students with an opportunity to develop corporate experience, business acumen, confidence, and soft skills that will put them on equal footing with their peers and allow them to be successful in corporate America. This fall we will have our first STEP participant admitted to the State Bar of North Carolina. Our program boasts a 95% college graduation rate.

Perhaps I am most proud of my work with The Michigan Hispanic Collaborative ("MiHC"), a Michigan non-profit dedicated to economic equity and opportunity for first-generation, lower-income Hispanic students, like me. MiHC delivers culturally relevant programming for both students and parents to help bring coherence to the chaos of college access.

And finally, there's my day job. In the Office of General Counsel at DTE we make diversity, equity, and inclusion a priority. We've partnered with the Wolverine Bar Association for more than 15 years, providing summer clerkship opportunities for Detroit area diverse law students. We've recently expanded the size of the program and focus on the growth and development of more diverse law students. We support the Leadership Counsel of Legal Diversity ("LCLD"), including the LCLD fellows program, a twelve month leadership development program for in-house attorneys and law firms. We too support supplier diversity, which means actively working with our law firms and advisors to increase diverse opportunities and representation.

Our Challenge

As our collective industry investments grow and segments of our workforce begin retiring, we have the opportunity to diversify our ranks from top to bottom, diversify spend, and use our collective influence to effect change – not just words, but *real* change.

"Are we doing enough?"

I am sure that each of you could list a myriad of strong examples of diversity, equity, and inclusion work throughout our industry. But I can't help but wonder: Are we doing enough? Am *I* doing enough?

G. Marcus Cole, the Joseph A. Matsen Dean and Professor of Law at Notre Dame Law School, shares his own experiences with racial violence in his essay "I am George Floyd. Except I can breathe."

Perhaps his most powerful words: “[J]ust because a police officer did not murder me or my children does not mean that he did not harm us.”² As the Dean of one of our nation’s leading law schools, he commits

*“I’ve accepted that challenge.
Will you join me?”*

to utilize his position, influence, and power, and asks

¹ Census bureau – also known as non-Hispanic white – white Americans who are not of Hispanic or Latino Ancestry.

all of us to work together to end racial violence, to end hate, and he challenges us all to do this.


I’ve accepted that challenge. Will you join me?

ABOUT THE AUTHOR


JoAnn Chaves, *Senior Vice President & Chief Legal Officer*, DTE Energy

For a full bio, please visit [here](#).

² Dean Cole’s essay is available on the University of Notre Dame’s website <https://law.nd.edu/news-events/news/dean-g-marcus-cole-i-am-george-floyd-except-i-can-breathe-and-i-can-do-something/>.



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PROMOTING RACIAL JUSTICE IN THE ELECTRIC UTILITY SECTOR

— BY GIL C. QUINIONES

The national outrage following the police killing of George Floyd in late May, and the heightened attention to more recent racial injustices and tragedies have galvanized the New York Power Authority (NYPA), the nation's largest state-owned public power utility, to action.

In July we proposed a Ten Point Racial Justice and Equity Plan to our Board of Trustees. The plan, developed by an interdisciplinary team of employees, SMEs and leaders outlined measures to: (1) expand employee training on antiracism, unconscious bias, microaggression, and cultural competency; (2) invest in our Black employees and create pathways for career development and upward mobility; (3) increase the number of minority- and women-owned business enterprises (MWBES) supporting the energy industry; and (4) increase the pipeline of utility and clean energy workers of tomorrow through the expansion of our community-based STEM education programs and a targeted scholarship program.

All of these steps are designed to move us closer to greater equity by building wealth and reducing economic disadvantages in Black communities and to work in concert with the landmark legislation signed into law by Governor Andrew M. Cuomo, ensuring that New York is leading the charge on combating social injustice.

These measures reinforce the Administration's commitment to address systemic racism, building upon other progressive actions such as a 2018 executive order for ensuring diversity, inclusion, and equal opportunity in the state workforce.

"We are very much committed to serving as a model for the energy industry."

Inspired by Governor Cuomo's leadership, NYPA is seizing this moment to reflect on its significance and embrace opportunities for bringing about meaningful change. We are very much committed to serving as a model for the energy industry.

Just days after Mr. Floyd's murder, NYPA held an organization-wide town hall meeting. Our mission was to ensure that our employees had a voice and were being heard. We talked very openly about the stark reality that Black Americans are two-and-a-half times more likely than white Americans to be killed by police officers.

The emotions and anxieties publicly and poignantly expressed by our Black employees made

a lasting impression on everyone who participated. One staff member described how fearful she was about the impending birth of her grandson, and the sad reality that given the dangers Black males face as they grow to adulthood, she would have preferred to be expecting a granddaughter. These heart-rending comments and the different accounts of employees' personal experiences with systemic racism moved us deeply. They challenged us all to reflect on what we could do together to change mindsets and behavior in our organization and our industry.

In addition to the Ten Point Racial Justice and Equity Plan, NYPA became the first energy company in the nation to join the American Association of Blacks in Energy (AABE) Energy Equity Campaign, which seeks to increase representation of African Americans in employment, leadership, business contracting, and workforce development in the energy sector.

To further institutionalize these forward-thinking measures, NYPA has elevated its Diversity, Equity, and Inclusion program through the creation of a new position—Chief Diversity, Inclusion and Equity Officer. Nancy Harvey, previously Director of the Office of Civil Rights and Inclusion, will report to Kristine Pizzo, the Executive Vice President and Chief Human Resources and Administration Officer, and me.

Nancy will be responsible for designing and implementing the overall equity, inclusion and diversity initiatives that align with our overall business strategy. She will provide leadership and strategic direction in implementation of the Ten Point Plan and in creating and supporting an environment at NYPA that is inclusive, respectful,

and free from discrimination, intolerance, harassment and retaliation.

The Office of Civil Rights and Inclusion was established in 2017, and focused on promoting a culture that embraces differences, where everyone is valued regardless of race, ethnicity, gender, sexual orientation, age, disabilities, or other inherent characteristics. This encompassing approach is supported by six Employee Resource Groups (ERGs) that are representative of shared characteristics and life experiences. The ERGs, which sponsor events and provide networking opportunities, are Women in Power, Generations, Multicultural, Pride in Power (formerly LGBTQ & Allies), Veterans, and the ECO (Sustainability) Team.

“NYPA has also been focusing externally on diversity, inclusion and equity.”

NYPA has also been focusing externally on diversity, inclusion and equity issues. Last year, we named a wing of the Northland Workforce Training Center in Buffalo, New York after a late 19th century African-American inventor, Lewis Latimer, who was one of the pioneers of the electric lighting industry, with the hope of inspiring the students who receive training in advanced manufacturing and energy related fields. The center received \$15 million of funding from NYPA, and millions of dollars more of additional state funding.

*"At NYPA, we know
that there is strength in
diversity."*

At NYPA, we know that there is strength in diversity. To meet the critical challenges that confront us, we must ensure that our communities and employees have equal opportunities to meet their full potential. To this end, we will work towards a more diverse and equitable workplace and we will leverage our resources and experience to increase the number of MWBEs supporting the clean energy transition.

In addition, we will increase the pipeline of clean energy workers through the expansion of our community STEM programs and scholarships that afford students in our Environmental Justice communities with opportunities to acquire industry experience.

At NYPA, we have a long tradition of transformational leadership. We have fully embraced the need to implement diversity, inclusion, and equity as major priorities, and are confident that our new initiatives will lead to substantial accomplishments across our organization and, hopefully, throughout our industry. As our record indicates, we know how to take the critical leap from thought to action, and that is exactly what we are doing now.

ABOUT THE AUTHOR

Gil Quiniones, *President and
Chief Executive Officer*, New
York Power Authority (NYPA)

For a full bio, please visit [here](#).

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RURAL ELECTRIC COOPERATIVE PROGRAMS EMBODY DIVERSITY, EQUITY, AND INCLUSION

— BY CURTIS WYNN

At a time in our nation's history when the principles of Diversity, Equity, and Inclusion (DEI) are being discussed – and demanded – with an intensity not seen in generations, many rural electric cooperatives are well on their way to implementing programs that demonstrate these values to their members.

When our co-ops began, there was absolutely no equity in how our country treated rural citizens in comparison to their urban counterparts. It took the enactment of the Rural Electrification Act in 1936 – fifty years after the initial deployment of small electrical stations in cities – to bring about the creation of electric cooperatives to help raise living standards in the less populated areas of the United States. To this day, rural electric cooperatives serve in more than 90% of the nation's persistent poverty counties as defined by the U.S. Department of Agriculture's Economic Research Service.

Inequity. Exclusion. Imbalance. We get it. We see it, and we experience it every day.

At Roanoke Electric Cooperative in northeastern North Carolina, we also work to overcome it. I'm proud to say, as Roanoke Electric's chief executive, that our cooperative strives daily to embody the tenets of Diversity, Equity, and Inclusion through the services it provides to its 14,500 member-owners spread over seven counties. It is a mission we don't take lightly, because the

socioeconomic challenges among our members are substantial.

To provide just a few data points, based on information from the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis:

- 23% of the people in our region live in poverty, compared to 14% of the U.S. population overall;
- for the two-year period ended April 2020 – just as the coronavirus pandemic was emerging in many states – our region's unemployment rate was 5.6% versus 3.7% for the United States as a whole;
- per capita income in our region was \$20,800 compared to \$32,600 nationally.

*"For our communities
to flourish, our
cooperative's members
must flourish."*

These are difficult circumstances, and they pose a challenge that will take time and sustained commitment to overcome. For our communities to flourish, our cooperative's members must flourish. This makes it imperative that Roanoke Electric engage with our member-consumers to ensure their

satisfaction and achieve better financial performance.

"We must acknowledge our diverse membership, treat them equitably, and find ways to be inclusive for our entire co-op family."

For years, the National Rural Electric Cooperative Association (NRECA) has studied and advocated solutions to the problem of energy poverty – where substandard housing and low household incomes can trap people in circumstances where electric bills far exceed many consumers' monthly expenditures, both in nominal terms and as a percentage of household income. NRECA is an advocate for policies and programs that not only seek to address access to affordable electricity, but also the root causes of unmanageable energy burdens and persistent poverty in the communities served by electric cooperatives.

Diversity, Equity, and Inclusion is the ideal framework within which to pursue these goals. DEI requires an understanding that each co-op member is different and has unique needs, as well as an understanding of the greater value of treating everyone in ways that meet their individual needs. We must acknowledge our diverse membership, treat them equitably, and find ways to be inclusive for our entire co-op family.

NRECA has developed two major projects that allow electric co-ops to work with local, state, and regional partners to achieve broad member participation and immediate positive outcomes.

Achieving Cooperative Community Equitable Solar Sources (ACCESS): This project aims to develop solar program designs and financial mechanisms that can extend the benefits of solar energy to low- and moderate-income consumers to ensure that those who struggle to pay their bills have cost-effective options to meet their needs. Many electric cooperatives have embraced community-owned solar, which enables co-op members to subscribe to a shared project. Direct member participation enables a household to supplement its energy use with renewable resources. However, this model creates a barrier to participation by low- and moderate-income households. Funding by philanthropic organizations could expand the ability of low- and moderate-income households to join community solar projects and substantially increase the solar capacity of an electric cooperative with larger projects.

Beneficial electrification: Co-ops are promoting energy solutions that maximize the efficiency of electricity in terms of usage and environmental impact. Many of the technologies that support beneficial electrification are familiar: smart homes and grid-enabled appliances, energy-efficient and smart water heaters, electric vehicles and mass transit options, and consumer goods such as electric lawn equipment and electric bicycles.

Unfortunately, substantial barriers exist to the affordability and availability of these technologies to low- and moderate-income households. To try to address this, NRECA and electric cooperatives fund diverse programs to promote beneficial electrification to their consumer-members and finance the deployment of these

technologies in the home or to support programs that electric cooperatives can use to finance these investments on their consumer-members' behalf.

Diversity, Equity, and Inclusion at Roanoke Electric

At the discrete co-op level, let's look more closely at how Diversity, Equity, and Inclusion manifest themselves at Roanoke Electric, conceptually and practically. The imbalance created by stagnant economic conditions and rapid technological changes makes it more important than ever that Roanoke Electric provides diverse energy programs to meet its members' needs. Like so many of the other 900 electric cooperatives operating in forty-eight states, we constantly seek to implement innovative programs that can make a positive difference.

Upgrade to \$ave

One of our increasingly successful programs is the Upgrade to \$ave energy efficiency program. Established in 2015, Upgrade to \$ave provides free energy assessments to homes and businesses that request them. Energy assessors determine where efficiencies can be gained, and they also identify upgrades that will result in the greatest energy cost savings. Upgrades include insulation, duct and air sealing, heat pump improvements, water heater wraps and LED lighting. Roanoke Electric invests all the upfront costs of the home's efficiency improvements in most cases, and it recovers the upgrade investments through a charge (bill tariff) on the recipient's monthly bill. Since the charge is less than the monthly savings yielded from the improvements, the total bill for our member still is lower than it was previously. To date, nearly 1,000

households have participated in this program. The obvious benefit, beyond the immediate savings to member-owners from reduced energy usage, is millions of dollars in savings associated with the reduced amount of wholesale power that the co-op must purchase to meet demand.

Roanoke SolarShare

A new, complementary program to Upgrade to \$ave – and one that speaks to our commitment to availability, affordability and inclusivity – is the Roanoke SolarShare program. The SolarShare program identifies and targets deserving, income-qualified households that cannot immediately take part in Upgrade to \$ave due to more serious health and safety repairs needed in their homes, which is about half of the homes in our program. SolarShare pays for the health and safety repairs using funds collected in Roanoke Electric's community solar program and, once those repairs are made, the households can receive the Upgrade to \$ave enhancements.

The community solar program, another example of Roanoke Electric's diversity of services, is borne from a 360-panel solar farm built adjacent to our headquarters in 2015. The energy output generated by the solar farm can be purchased in blocks of 10 panels each. Purchasers receive monthly credits on their bill for the value of the electricity generated by the block(s) they buy. Because solar energy is out of reach for many residents in our communities, the SolarShare program relies upon the generosity of third parties who purchase blocks and grant those monthly credits to low- and middle-income member-owners.

In this way, Roanoke SolarShare demonstrates the value of our co-op engaging new and diverse partners – be they individuals, philanthropic funders or energy services companies – to address the needs of our members. With the addition of approximately two megawatts of community solar, Roanoke Electric plans to raise over \$1.5 million, mainly from philanthropic funders, to mitigate more than 800 members’ health and safety issues. Diversity’s importance to our performance and member service also stems from the fact that our industry is market-driven, with third parties presenting solutions to consumers at an increasing rate. To remain the trusted energy provider, partnerships can help us act at a pace that keeps up with the rapid change our industry is experiencing. To do this effectively on a sustained basis, we must attract diverse talent to better identify solutions that meet our members’ varied needs.

“Diverse talent helps to avoid ‘group think’ and will point out blind spots that are often overlooked.”

By leveraging the different backgrounds and life experiences of a diverse staff, we are positioned to collaborate with an array of partners and incorporate ideas we otherwise might not recognize. Diverse talent helps to avoid “group think” and will point out blind spots that are often overlooked.

As we witness an energy transformation that requires a different approach and a new perspective,

workforce diversity becomes increasingly important in other ways too. Seasoned electric utility professionals have dedicated entire careers focusing on the traditional, one-way flow of power, and the maintenance of power plants, transmission lines, substations and distribution systems. But our industry is rapidly changing to one that entails distributed energy resources, multi-directional flow of electrons and an increasing focus on in-home devices that can both positively and negatively impact electric cooperative operations.

Beneficial Electrification

Roanoke Electric, like a fast-growing number of co-ops, has begun to embrace this transformation and turn a major threat into a tremendous opportunity by promoting beneficial electrification projects. For example, we launched a pilot program for plug-in electric vehicles (EVs). The EV program offers a discounted subscription rate to EV owners who typically drive an average of fifty miles or less each day and could easily re-charge their vehicle batteries overnight. To enable rapid market penetration and enhance our demand response program, our cooperative is making the upfront investment in the equipment and installation. Although the adoption of EVs in Roanoke Electric’s region is in a very early state, the co-op anticipates this trend will grow.

To take our EV deployment effort a step further, we are initiating a vehicle-to-grid (V2G) pilot at our headquarters facility. This program will test our ability to use vehicle owners’ unused battery capacity as a peak-shaving resource for our cooperative. The EV program is one more program purposely designed to incorporate Diversity, Equity, and Inclusion by removing barriers to participation

and making EV ownership accessible to all of our member-consumers, especially those facing energy burdens. As a bonus, it improves the co-op's financial performance by reducing greenhouse gas emissions, lowering our energy costs and increasing our load factor.

Roanoke Connect

The Roanoke Connect broadband program is another program we have established to advance inclusion and equity among our members. The Roanoke Connect broadband initiative, currently being deployed, is providing high-speed internet and smart grid energy efficiency capabilities throughout our service territory. The smart grid services leverage new technology to help control high electricity costs that are incurred at peak demand periods. Broadband-enabled thermostats and water heater devices are installed, enabling the co-op to adjust temperatures remotely for short periods of time. Members receive bill credits for allowing installation of the devices.

As the COVID-19 pandemic has made painfully clear, rural broadband capabilities are at the heart of equitable and inclusive activities that urban and suburban regions have much greater access to – education, health care and economic development being chief among them. Roanoke Electric is determined to lead the way in achieving greater equity in these areas. Our success, and that of other co-ops, can help bring people back to rural America by providing innovation and quality of life that surpasses the crowded spaces in which many families and businesses have become weary, especially in the aftermath of the coronavirus pandemic.

Commitment To All Our Members

It is no secret that, if our co-ops do not meet the needs of each member, a select few of our easy-to-serve members will not have to look far to find someone who will. There are third parties actively working today to capture our members' energy dollars with innovations in areas like renewable energy and battery storage. To the extent these companies make inroads with specific customers, they take away from the local co-op business that nourishes the entire community.

"... the tenets of Diversity, Equity, and Inclusion mean that it's not just about dollars, particularly for purpose-driven co-ops that witness member hardships daily."

Unfortunately, third parties will exclude members that are harder to serve and make it financially impossible for the cooperative to do so. At the end of the day, the tenets of Diversity, Equity, and Inclusion mean that it's not just about dollars, particularly for purpose-driven co-ops that witness member hardships daily. With movement into the future and new policies, there is risk of creating inequalities. But under co-ops' guiding principles, economic advantage should unite, not divide, our communities. It is our job to make sure that innovation doesn't come at the expense of any subgroup of our members.

ABOUT THE AUTHOR

Curtis Wynn is President & CEO of Roanoke Electric Cooperative. Roanoke Electric Cooperative distributes power to 14,500 members in northeastern North Carolina. Under Wynn's 22 years of leadership, the cooperative has advanced operationally and technologically to increase its system's efficiency and resilience while improving service to its member-owners.

In 2000, the cooperative established a non-profit 501c3 subsidiary, The Roanoke Center, which has worked extensively to support economic development and wealth creation throughout REC's service region. The Roanoke Center has positioned itself as a vehicle to receive and deploy several millions of dollars of philanthropic support for initiatives that provide direct benefits to its member-owners and the region at large.

Wynn is President of the National Rural Electric Cooperative Association and also serves on the National Rural Utilities Cooperative Finance Corporation, North Carolina Electric Membership Cooperative and North Carolina Association of Electric Cooperatives boards.

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JUST TRANSITION TO RENEWABLE ENERGY COMING JUST IN TIME FOR APPALACHIA

— BY LAURA M. MARTIN

Appalachia has provided the United States with cheap energy for generations. But the residual effects of coal production are becoming evident, and an entire industry is facing demise. However, the region shaped by the coal industry has struggled for decades prior to the industrial downturn. Mechanization of the extraction process has cost coal miners their jobs since long before clean energy became a national concern. Surprisingly, the transition to clean energy may save this marginalized community of the Appalachian region.

Economic Conditions in Appalachia

The mountains regions of West Virginia, Kentucky, Virginia, and Tennessee are a study in contradictions. Coal once provided the fuel for 52% of the electricity generated in the United States,¹ yet this area of major coal production has among the highest energy burden, measured by percentage of one's income devoted to home energy costs, in the country.² Areas where, at one time, a man with a high school diploma could make a six-figure salary within five years of being on the job,³ now have unemployment rates of up to 15.7%.⁴ In Fiscal Year 2021, seventy eight Appalachian counties are classified as distressed and 104 are at-risk.⁵ Amid the breathtaking beauty of Appalachia, mountains are missing their peaks and people are living in destitution: crawl spaces are flooded; houses sit on

the ground, without foundation; mushrooms grow up through the carpets.⁶ In some instances, “people live in houses that are worse for them than it would be if they lived outside.”⁷ Appalachia, among the most beautiful places in the country, is being abandoned.⁸



Poverty levels in this region are increasing. In a study conducted by the Population Reference Bureau, the percentage of people living in poverty in the Appalachian region has risen 1.5% from the 2006-2010 time period to the 2011-2015 time period.⁹ In other words, fewer individuals in Appalachia were experiencing poverty during the Economic Recession of 2008 than they are in post-economic-recovery times.¹⁰ Entrenched inequities in the region, such as “the decline of coal mining jobs due largely to changing markets; the absence of employment alternatives; the rise of opiate addiction; higher rates of depression, heart disease, and cancer; growing dependence upon Medicaid and [Social Security Insurance]; and insufficient tax revenues for education and other local services[,]”¹¹ help account for the marginalization of approximately 6.1 million

Americans living in Central and South Central Appalachia.¹²

The Role of Coal

This is not simply a story of those left behind in the transition to preferred forms of fuel, such as renewables and natural gas. If coal production were still at its peak, conditions in these towns would still be impoverished because the dirty, dangerous, “good” jobs that built these towns have been slowly replaced with machinery. In a documentary by CBSN, it was noted that despite the sharp decline of mining jobs in West Virginia since 1950, coal production in the area has not fallen at near as sharp a pace.¹³ This being the case, regulations and subsidies designed to bolster the coal industry *will not* be bringing jobs back to the mines.¹⁴

While mechanization accounts for a portion of jobs lost in coal, it is by no means the whole story. A joint report authored by the University of Tennessee and West Virginia University found coal production in Appalachia fell by 45% between 2005 and 2015.¹⁵ This loss was largely concentrated in Southern West Virginia and Eastern Kentucky, and over roughly the same time period (2000-2015), coal employment dropped in seventy eight of the 129 counties that had coal employment in 2010.¹⁶ The study further reported that thousands of the coal-sector jobs lost in the Appalachian regions of West Virginia and Kentucky had no counterparts in the manufacturing, construction, or transportation sectors within their respective states.¹⁷ This means that former coal industry workers will either have to invest in further education and training, which few can afford, or leave the state to find a comparable occupation.

The Just Transition

Energy justice, “the goal of achieving equity in both the social and economic participation in the energy system, while remediating social, economic, and health burdens on those historically harmed by the energy system,”¹⁸ exists under the broader umbrella of “just transition.”¹⁹ Originating from labor and environmental movements in the 1970s, the term “just transition,” has multiple meanings within the energy context today.²⁰ To some it signifies that the transition to regenerative energy sources is a just and equitable movement from extractive and damaging fossil fuel usage.²¹ To others, it is simply a call to “protect[] workers and communities who depend on high-carbon industries from bearing an undue burden of the costs of decarbonization.”²² All these definitions, however, merge in Appalachia, where communities are dependent on coal but can benefit economically from the move to a low-carbon, renewables economy.

“The Appalachian region is fortunate that renewables are gaining traction.”

The Appalachian region is fortunate that renewables are gaining traction. Not only does this new industry provide many jobs to the area, and has the potential to provide many more, but it also highlights and elevates the plight of the people here, a plight that would have stricken with or without the advent of clean energy. Thousands of people lost their jobs due to mechanization, and thousands more will lose them due to further estimated downturns in

production.²³ But whatever the reason jobs were lost, former coal miners can and are reentering the energy industry; only this time on the side of renewables. And organizations committed to a just transition are there to facilitate this evolution of the Appalachian economy. The Mountain Association is one such committed organization.

Previously the Mountain Association for Community and Economic Development (MACED), the Mountain Association is a nonprofit “helping to shape a just transition to a new economy for post-coal Appalachia.”²⁴ Beginning as a microlending institution for small businesses in the Appalachian region of Kentucky, the Mountain Association realized that businesses could experience significant savings by taking small steps toward energy efficiency.²⁵ These steps include fixing leaks in buildings so heat does not escape, changing over to LED lighting, and solar panel installation.²⁶ The Mountain Association began performing energy audits in homes and businesses where the monthly energy bills were particularly excessive.

The Mountain Association found that performing the audits and identifying viable upgrades for a building was one thing but getting contractors to execute the upgrades was another. It could be six months or more to get a project off the ground, simply because there were no laborers available.²⁷ This seemed unjustifiable in a region that was experiencing high unemployment. In 2018, the Mountain Association started the New Energy Internship program which offers former coal miners and other unemployed Kentuckians six-month internships to “train on assessing buildings and homes for energy efficiency issues, implementing

energy efficiency upgrades, and renewable energy systems.”²⁸ Additionally, the internship offers a six-week business course with an eye toward graduated interns starting their own energy services contracting business in their hometowns in Eastern Kentucky. To date, twelve interns have graduated from this program and are helping their communities become more energy efficient and transition to renewable energy strategies. Several small businesses have benefitted from this program, including Hemphill Community Center (Center) in Letcher County, Kentucky, where after solar panel installation and other upgrades were performed by New Energy Interns, the Center now saves \$748 each month on electricity.²⁹

*“...more systemic solutions
may be needed to achieve a
just transition from fossil fuels,
like coal, to renewable forms of
energy.”*

Obstacles to a Just Transition and Solutions

Though organizations such as the Mountain Association are doing work on the ground, more systemic solutions may be needed to achieve a just transition from fossil fuels, like coal, to renewable forms of energy. When representatives from the Mountain Association were asked about solutions to the obstacles to a clean energy transition in Appalachia, they answered, “better regulations.”

Tennessee and West Virginia are among the states that have implemented the fewest policies and incentives for renewables and energy efficiency in

the country.³⁰ Unsurprisingly, Kentucky and West Virginia are two of the bottom five states in percentage of energy coming from renewables.³¹

Evan Hansen of the West Virginia House of Delegates cited (1) lack of incentives for renewables and (2) the state legislature's continued bolstering of the coal industry as the reasons wind and solar have not taken off in that state.³² Interestingly, he does not point toward an imperfect topography for these industries nor an unwillingness to accept renewables, but rather points toward government-made roadblocks to change.

One legislative fix that would be favorable to renewables, and which has been passed in fifteen state legislatures across the country, is authorization to make power purchase agreements (PPAs).³³ These agreements are between provider and buyer to help finance the implementation cost of renewable, often solar, installations.³⁴ PPAs are the primary way solar panels are sold in the U.S. because the cost of installation for rooftop solar is often between \$10,000 and \$30,000.³⁵ If there is an agreement, payments are made in installments over time, but without a PPA, the entire cost is due from the purchaser up front.³⁶

While the West Virginia legislature refuses to authorize PPAs,³⁷ its neighbor, Virginia, home to two of the most coal-industry dependent counties in the region – Buchanan and Dickenson Counties³⁸ – explicitly allows for and regulates PPAs under its state net metering provisions.³⁹ This does not mean, however, that PPAs are available to everyone in Buchanan and Dickenson Counties. Another hurdle to solar in those counties is that all solar installation costs be paid up front for public ratepayers, such as

local governments or schools entering into PPAs.⁴⁰ Private ratepayers, on the other hand, including residents and private businesses are welcome to enter PPAs up to the cap instituted by the legislature.⁴¹ Allowing for PPAs is a step in the right direction, even if it is sometimes only a half-step.

An additional step toward just transition will be community leadership. Rachel Norton, of the Mountain Association said, “leadership on every level and support is something that is needed for these transitions to happen.”⁴² Without legislatures supporting transition through the bills they pass, and without leaders in the communities willing to exemplify support, how can an entire region be expected to change behavior?⁴³ “If you want a community to thrive, give them the money.”⁴⁴ Any monetary assistance, federally funded or otherwise, should go directly to the community, because “they know what they need” and “all they need are the right tools!”⁴⁵



Solar panels on the Kentucky Coal Mining Museum located in Eastern, Ky.
Courtesy: Sarah Anderson, WYMT (Apr. 5, 2017)

The Appalachian economy is in a state of decay and its rich culture is in jeopardy, due in massive part to the loss of jobs in the coal industry,

starting with mechanization and continuing with the shift toward renewables. But the shift to renewables brought along with it an unexpected guest – an opportunity for a just transition. Renewables may be causing some fossil fuel workers to lose their jobs, but they are also providing this region with new opportunities, not just for job growth, but also for savings, efficiency, and reducing the burdens of poverty that have existed here for decades. For Appalachia, the shift toward renewables has come just in time.



ABOUT THE AUTHOR

Laura Martin is a 3L at the George Washington University School of Law. Prior to law school, she received a degree in Chemical Engineering from the University of Kentucky and worked for three years as a process engineer at Eastman Chemical Company's Kingsport, Tennessee manufacturing site. While in law school, she has interned with the Natural Resources Defense Council and with the Environmental Law Institute. Having spent both summers of law school at Covington & Burling, she will be joining their practice upon graduation.

¹ U.S. ENERGY INFO. ADMIN., *Electricity Explained* (last updated Mar. 19, 2020), <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us-generation-capacity-and-sales.php> (“In 1990, coal-fired power plants accounted for about 42% of total U.S. utility-scale electricity generating capacity and about 52% of total electricity generation.”).

² See OFFICE OF ENERGY EFFICIENCY & RENEWABLE ENERGY, U.S. DEP'T OF ENERGY, *LOW-INCOME HOUSEHOLD ENERGY BURDEN VARIES AMONG STATES – EFFICIENCY CAN HELP ALL OF THEM* (Dec. 2018) https://www.energy.gov/sites/prod/files/2019/01/f58/WIP-Energy-Burden_final.pdf (showing individuals living in the states in this region use 8-12% of their income on energy bills); *Electricity Energy Burden Analysis*, KENTUCKIANS FOR THE COMMONWEALTH <https://kftc.org/campaigns/energy-democracy/power-maps/electricity-energy-burden-analysis> (last visited Sept. 30, 2020) (showing counties in Eastern Kentucky have energy burdens of up to 13%). This region also has the highest potential for electricity savings in low-income households. *Id.* (depicting Kentucky, Virginia, North Carolina, South Carolina and Tennessee as the only states having between 29-32% savings potential).

³ Fortune, *Surviving a Post-Coal Economy*, YOUTUBE (Mar. 4, 2019), <https://www.youtube.com/watch?v=YHW9FdHPoyg> (interview with Scott Schoupe, former coal miner).

⁴ *Unemployment Rates in Appalachia, 2017*, APPALACHIAN REGIONAL COMMISSION (2017) <https://www.arc.gov/map/unemployment-rates-in-appalachia-2017/>.

⁵ *County Economic Status in Appalachia, FY 2021*, APPALACHIAN REGIONAL COMMISSION <https://www.arc.gov/map/county-economic-status-in-appalachia-fy-2021/> (last visited Oct. 1, 2020).

⁶ Interview with Rachel Norton, Certified Energy Manager, Mountain Association (Sept. 10, 2020).

⁷ *Id.*

⁸ Fortune, *supra* note 3 (estimating that some Eastern Kentucky towns have lost up to 70% of their population).

⁹ KELVIN M. POLLARD & LINDA A. JACOBSEN, *THE APPALACHIAN REGION: A DATA OVERVIEW FROM THE 2011-2015 AMERICAN COMMUNITY SURVEY*, POPULATION REFERENCE BUREAU (2017) <https://www.prb.org/economic-recovery-in-appalachia/> (“Since 2006-2010, the share of Appalachian residents in poverty (incomes below \$24,036 for a family of two adults and two children in 2015) has risen 1.5 percentage points to 17.1 percent in 2011-2015.”).

¹⁰ See *id.* “Appalachia’s unemployment and poverty rates remain above levels seen before the economic downturn of 2007-2009, suggesting an incomplete economic recovery[.]”

¹¹ Ronald D. Eller, *Fixing Appalachia is the First Step to Fixing America* (March 18, 2018), <https://www.100daysinappalachia.com/2018/03/fixing-appalachia-is-the-first-step-to-fixing-america/>.

¹² Sum of the populations living in the Appalachian regions of Kentucky, Tennessee, Virginia, and West Virginia. See KELVIN M. POLLARD & LINDA A. JACOBSEN, *THE APPALACHIAN REGION: A DATA OVERVIEW FROM THE 2013-2017 AMERICAN COMMUNITY SURVEY*, POPULATION REFERENCE BUREAU (May 2019), <https://www.arc.gov/wp->

content/uploads/2020/06/DataOverviewfrom2013to2017ACS.pdf.

¹³ CBSN, *Clinging to Coal: West Virginia's Fight Over Green Jobs*, YOUTUBE (May 10, 2019)

<https://www.youtube.com/watch?v=J25bYbDqp0k> (showing relative consistent decline in coal jobs since 1950, while coal production in the area has only consistently been declining since 2010)

¹⁴ Hiroko Tabuchi, *Coal Mining Jobs Trump Would Bring Back No Longer Exist*, N.Y. TIMES, Mar. 29, 2017, <https://www.nytimes.com/2017/03/29/business/coal-jobs-trump-appalachia.html>.

¹⁵ See ERIC BOWEN ET AL., AN ECONOMIC ANALYSIS OF THE APPALACHIAN COAL INDUSTRY ECOSYSTEM, 2 (Jan. 2018).

¹⁶ *Id.* at 12.

¹⁷ *Id.* at 13.

¹⁸ THE ENERGY JUSTICE WORKBOOK, INITIATIVE FOR ENERGY JUSTICE, <https://iejusa.org/section-1-defining-energy-justice/> (last accessed Sept. 27, 2020).

¹⁹ *Id.*

²⁰ Ann Eisenberg, *Just Transitions*, 92 S. CAL. L. REV. 273, 275 (2019).

²¹ The Climate Justice Alliance frames the “just transition” as a shift “away from the global ‘dig, burn, drive, dump economy,’ towards a vision of many local, living, caring and sharing economies.” *History of the Climate Justice Alliance*, CLIMATE JUST.

ALLIANCE, <https://climatejusticealliance.org/cja-history/> (last visited Sept. 27, 2020).

²² Eisenberg, *supra* note 20, at 286.

²³ See U.S. ENERGY INFO. ADMIN., *Short-Term Energy Outlook* (Sept. 9, 2020) (“EIA expects total U.S. coal production in 2020 to be 511 million short tons (MMst), 194 MMst (28%) lower than in 2019.”).

²⁴ Fortune *supra* note 8.

²⁵ See Norton *supra* note 6.

²⁶ *Id.*

²⁷ Developing a Workforce Trained in Clean Energy, MOUNTAIN ASSOCIATION (May 1, 2020) <https://mtassociation.org/energy/developing-a-workforce-trained-in-clean-energy/>.

²⁸ *Id.*

²⁹ Hemphill Community Center-Neon, Kentucky, MOUNTAIN ASSOCIATION (March 1, 2020)

<https://mtassociation.org/energy/hemphill-community-center-neon-ky/>. Hemphill is a community gathering place that hosts music, dancing, and arts workshops. It recently opened a bakery and pizzeria that employs individuals recovering from addiction.

³⁰ West Virginia having 10 such policies and incentives and Tennessee having 17. For reference, Texas has 112. NC Clean Energy Technology Center, <https://www.dsireusa.org/> (last visited Sept. 24, 2020).

³¹ *Renewable Energy Production by State*, UNITED STATES DEPARTMENT OF ENERGY <https://www.energy.gov/maps/renewable-energy-production-state> (West Virginia and Kentucky at 0.95% and 2.35% respectively).

³² See CBSN *supra* note 13.

³³ JESSE HEIBEL AND JOCELYN DURKAY, STATE POLICIES FOR POWER PURCHASE AGREEMENTS (July 10, 2015), <https://www.ncsl.org/research/energy/state-policies-for-purchase-agreements.aspx#Virginia>.

³⁴ See *id.*

³⁵ CBSN *supra* note 13.

³⁶ *Id.*

³⁷ Autumn Long, *West Virginia Fails to Legalize Power Purchase Agreements*, WEST VIRGINIA ENVIRONMENTAL COUNCIL (April 30, 2020) <https://wvecouncil.org/west-virginia-fails-to-legalize-power-purchase-agreements/>

³⁸ See Coal Industry Analysis *supra* note 15, County-Level CIE Supply Chain Analysis at 14.

³⁹ Va. Code § 56-594 (E).

⁴⁰ Kevin Ridder, *Appalachian Power Restricts Solar Savings in Virginia*, THE APPALACHIAN VOICE (Dec. 16, 2019), <https://appvoices.org/2019/12/16/appalachian-power-restricts-solar-savings-in-virginia/>.

⁴¹ See *id.*

⁴² Norton *supra* note 6.

⁴³ A neighbor’s anecdotal experience with solar panels will move the needle more within a town than an outside expert preaching the benefits of solar energy. Interview with Chris Woolery, Residential Energy Coordinator, Mountain Association (Sept. 18, 2020).

⁴⁴ Norton *supra* note 6.

⁴⁵ *Id.*

PRINCIPLES TO ADVANCE ENERGY JUSTICE FOR NATIVE AMERICANS

— BY CATHERNIE J.K. SANDOVOL

I am honored that the Energy Bar Association asked me to write this article for *EBA Brief*. This article suggests principles to advance energy justice for Native Americans, and for all Americans. It encourages readers, regulators, legislatures, businesses, elected officials, and the public to meaningfully consult with Native American tribes to support energy justice.

The opportunity to consult and collaborate with Native American tribes and organizations informed the development of these principles. I would like to thank the Yurok Tribe, the Karuk Tribe, and Tracy Stanhoff, President of the American Indian Chamber of Commerce of California, for their comments on this article. I offer these observations and principles to foster dialogue, consultation, and collaboration to advance energy justice, and am not representing any organization or institution through these proposals.

The opportunity to collaborate with and learn from Native American tribes and organizations informed my regulatory work as a Commissioner of the California Public Utilities Commission (CPUC) from January 2011 to January 2017. As a law professor at Santa Clara University School of Law where I teach Energy Law, Communications Law, Contracts, and Antitrust Law, consultation with Native American tribes has enriched my academic

work. I am grateful to the Yurok Tribe for our collaboration that informed the book chapter I wrote, *Energy Access is Energy Justice, The Yurok Tribe's Trailblazing Work to Close the Native American Reservation Electricity Gap*, in *ENERGY JUSTICE, US AND INTERNATIONAL PERSPECTIVES*.¹

Service on the American Indian Chamber of Commerce of California Advisory Council following the conclusion of my term as a CPUC Commissioner provides opportunities to support talented Native American entrepreneurs. I have appreciated the opportunity to collaborate with the Karuk and Yurok Tribes to develop comments to the Federal Communications Commission. This article invites all participants in the energy, environment, infrastructure, and public policy fields to collaborate with Native American tribes to advance energy justice.

A. Energy Justice Perspectives

Reflecting on the perspectives we bring to our work in the energy field informs energy justice work. Perspectives often frame our view of “what is,” and may obscure energy and environmental justice gaps outside of our personal experience or field of work or study.

As a Latina who grew up in communities that faced energy and environmental justice challenges, these perspectives inform my work to understand the

range of energy, environment, and climate justice challenges Americans face. I am originally from East Los Angeles where my family lived in a trailer park before we moved up to the barrio where we lived in an apartment. When my family moved to a nearby city, Montebello, we were not informed that our home was built on top of an active natural gas storage field in an area of capped oil wells, near an operating dump. By the time I went to graduate school at Oxford, methane leaked into several homes, leading at least five homes to be razed.² CPUC proceedings led to that natural gas storage field's closure, while litigation continued about the source of the methane leaks, and the dump was classified as a superfund site and closed.³

"A different type of energy justice challenge faces those without access to electricity."

A different type of energy justice challenge faces those without access to electricity. My mother often told us stories about her family in rural Benson, Arizona, and the years during which they lacked access to electricity. She recounted how they laughed when someone gave my grandfather Christmas lights as a gift for building a wall. Since their home had no electricity, they strung up the lights which twinkled in the sunlight and stayed dark after sundown. Benson was ultimately served by a rural electric cooperative which still serves that area today.

Decades later, many Native American reservations still lack access to the electric grid. These energy justice challenges invite us to broaden

our perspectives and ask whether programs, policies, and projects serve the range of energy needs in our communities, consistent with environmental protection and safe, reliable service, at just and reasonable rates.

B. The Native American Reservation Electricity Gap

On many Native American reservations, lack of energy access reduces health, economic, and educational opportunities, harming tribal members and our nation. The U.S. Energy Information Administration (EIA) reported in 2000 that 14% of households on Native American reservations have no access to electricity, compared to 1.4% nationally.⁴

EIA has not updated its analysis of the Native American reservation electricity gap since its report published twenty years ago. The American Community Survey (ACS), a component of the U.S. Census, obscures electricity access gaps through the question it asks about household energy fuel. The 2020 ACS asks "[w]hich FUEL is used MOST for heating this house, apartment, or mobile home?"⁵ That ACS question offers a multiple choice energy menu of fuel alternatives, "Gas: from underground pipes serving the neighborhood; Gas: bottled, tank, or LP; Electricity; Fuel oil, kerosene, etc.; Coal or coke; Wood; Solar energy; Other fuel; No fuel used."⁶ These census questions leave the public uninformed about whether the household responding to the survey has access to the electric grid. Better data collection and more research is needed to fill this information gap.

"Tracy Stanhoff, President of the American Indian Chamber of Commerce of California,

observed that utility infrastructure and services often stop just outside the border of many Native American reservations.”⁷ While several projects led by Native American tribes have narrowed the Native American reservation electricity gap, thousands of households and institutions serving tribal members remain without electric grid access in 2020. The electric grid’s absence fuels lack of access to infrastructure interconnected with electricity including water, water treatment, telephone, and Internet facilities and services.

The COVID-19 pandemic highlights the urgency of closing the Native American reservation infrastructure gap. The U.S. Centers for Disease Control and Prevention (CDC) reported that in “23 states with sufficient COVID-19 patient race/ethnicity data, the overall COVID-19 incidence among AI/AN [American Indian/Alaska Native] persons was 3.5 times that among white persons.”⁸ The numbers of Native Americans afflicted by COVID-19 is likely higher as Arizona was excluded from CDC’s analysis due to the absence of data tracking race/ethnicity and Native American ancestry.⁹

The Navajo Nation, whose reservation spans parts of Arizona, New Mexico, Utah, and Colorado reported 10,501 cases and 560 confirmed deaths of COVID-19, Dikos Ntsaaígíí in the Navajo language, as of October 6, 2020.¹⁰ Large portions of the Navajo Nation have no access to grid electricity or running water.¹¹ In 2019, approximately 15,000 families on the Navajo Reservation lacked access to electricity, leaving at least 60,000 people without access to this resource long taken for granted in most American

communities.¹² Infrastructure access influences vulnerability to COVID-19 infection and health outcomes. CDC cited “shared transportation, limited access to running water, household size, and other factors that might facilitate COVID-19 community transmission.”¹³

“Grid-electricity access will enable Internet and communications buildout as they are interconnected infrastructures increasingly dependent on electricity.”¹⁴ Lacking robust internet connections, many fire crews working on Native American reservations must “meet in person rather than stage briefings via Zoom, as federal crews have done elsewhere during the pandemic.”¹⁵ Electricity access will improve fire safety, water and wastewater access and treatment, telecommunications access, health, educational, economic, and civic opportunity.

In the spirit of consultation and collaboration, and respectful of tribal sovereignty, this article humbly proposes six principles to advance energy justice for Native Americans. These principles will help the federal government to fulfill its trust responsibility to Native American tribes. Fostering energy justice for Native Americans will improve prospects for all Americans, advance our economy, protect the environment, and promote equity.

C. Principles to Advance Energy Justice for Native Americans

Principle 1: *Respect Tribal Sovereignty*

Respect for tribal sovereignty forms the cornerstone of Native American energy justice. For millennia, Native American tribes thrived as stewards of the land with their own legal systems in

the territory that became the United States of America.¹⁶ Tribal governments predate the U.S. Constitution, and are entitled to respect as sovereign governments.¹⁷ Despite massacres of Native Americans by settlers (often with federal or state government knowledge and support), diseases brought by settlers,¹⁸ and attempts to terminate several Native American reservations,¹⁹ the federal government recognizes 574 Native American tribes,²⁰ many of which control tribal land or act as stewards for land held in trust for Native American tribes.

Federal law and many state laws require meaningful consultation with Native American tribes prior to government action.²¹ Meaningful consultation requires more than sending a notice or making information available on the Internet. Failure to follow tribal consultation requirements or to adequately consider tribal impacts may lead to litigation, reversals, and remands for failure to meet applicable legal standards.²²

“Regulators should consult with Native American tribes about opportunities to hold public hearings on tribal lands.”

Regulators should consult with Native American tribes about opportunities to hold public hearings on tribal lands. As a CPUC Commissioner, I had the honor of coordinating with the Karuk, Hoopa, Yurok, and Agua Caliente tribes to hold public participation meetings on tribal lands. The

CPUC collaborated with the Morongo Tribe to visit their reservation where tribal residents had only dial-up level Internet service in 2015 at their reservation near Palm Springs, California, next to a major federal interstate highway.

Much of the land on Native American reservations in the lower 48 states is held in trust by the United States government for the benefit of one or more tribes.²³ In contrast, the 1971 Alaska Native Claims Settlement Act addressed land claims by Alaska Natives who hold land through corporations whose members are Alaska Natives.²⁴ Many Alaska Native villages also lack access to grid electricity, depend on diesel fuel or oil, and pay high energy costs, conditions that undermine access to clean water and telecommunications services.²⁵

Proposals to develop energy infrastructure on tribal trust land require consultation with and consent of Native American tribes as well as the federal government.²⁶ Federal law and policy also require consultation with Alaska Native corporations.²⁷ State eminent domain rules do not extend to tribal trust land.²⁸ Minerals on tribal lands are part of the land held in trust for the tribe.²⁹

Several tribes live with downstream effects of energy projects developed without tribal consultation, many built prior to environmental laws such as the Clean Water Act and Clean Air Act.³⁰ Removal of four dams on the Klamath River in California —J.C. Boyle in Oregon and Copco I, Copco II and Iron Gate in California—is a priority for the Yurok Tribe and the Karuk Tribe.³¹ These facilities, built between 1918 and 1962 with an aggregate hydroelectric capacity of 43 megawatts (MW), have been

operating on year-to-year license extensions after their FERC license expired in 2006. Craig Tucker, a natural resources consultant for the Karuk Tribe describes the dams as “monuments to colonialism.”³²

In July 2020, the Federal Energy Regulatory Commission (FERC) issued a decision requiring the dam licensee, Pacific Power, to stay on the license as a condition of the license transfer to a non-profit that would oversee dam removal if FERC approved the license surrender application.³³ FERC’s decision complicates progress in this longstanding proceeding. Meanwhile, the dams continue to impede fish passage and promote blue green algae blooms that limit access to fish that have been critical to the diet and health of tribes living along the river.

“Outreach must provide sufficient lead times to include robust participation.”

Decisions about net energy metering, wildfire safety, energy reliability, safety standards, ratemaking decisions, proposals for project construction impacting tribal lands, and many more topics affect Native American tribes. Outreach must provide sufficient lead times to include robust participation. The federal government and philanthropic sector should support resources for regulatory participation by Native American tribes in federal and state proceedings.

Principle 2: Energy Access is Foundational to Energy Justice

“Energy infrastructure poverty is community poverty stemming from federal, state, and private

sector decisions that excluded many Native American reservations from ‘universal service’ policies.”³⁴ The Rural Electrification Administration did not make Native American tribes eligible for grants.³⁵ Many federal and state “universal service” policies did not reach Native American reservation households and institutions.³⁶ State public utility commission “cost-causer pay policies” result in costs of \$40,000-\$60,000 per mile or more to connect households to grid electricity who were skipped when universal service policies spread costs to serve like peanut butter over the grid.³⁷ It is decades past time to address these inequities.

Examples of tribal leadership in addressing infrastructure gaps informs the analysis of energy needs on reservations and potential strategies to redress these gaps. Over the course of nearly three decades, the Yurok Tribe, California’s largest tribe, led efforts to develop and construct electric grid access for many reservation residents and the elementary school in the upriver portion of the reservation near Weitchpec, California.³⁸ Though that line was energized in 2018, energy challenges remain. “Over 40% of the Upper Yurok reservation has no access to basic telephone or electricity services,” contributing to poverty rates averaging 80%.³⁹ Yurok Reservation residents in those areas “get their electricity from gas or diesel-powered generators, which pose health risks for residents, pollute the environment, and cost up to four times more than conventional grid electricity.”⁴⁰

The Yurok Tribe’s energy strategic plan seeks to “make sure all Tribal members living within the Yurok Ancestral Territory have access to reliable,

affordable, modern, cost-effective energy services. In addition, the Tribe seeks an energy program that promotes energy self-sufficiency, environmental sustainability, use of local renewable resources, job creation and economic opportunity for Tribal members.”⁴¹

To support this plan, the Charitable Foundation of the Energy Bar Association (CFEBA) awarded a grant to support the Yurok Tribe’s micro-grid project at its Tulley Creek Complex on the Yurok Reservation “which includes critical infrastructure such as a fire center and emergency services office.”⁴² The micro-grid will increase reliability while the Yurok Reservation “faces increasingly frequent and lengthy service interruptions due largely to wildfire risk” on the part of the reservation served by PG&E where many still lack access to grid electricity.⁴³ Many Native American reservations that have electricity access are often located at the end of radial lines, and suffer outages that last for days, not hours.⁴⁴

The Navajo Tribal Utility Authority (NTUA) leads work to provide electric grid access and solar energy to tribal members.⁴⁵ NTUA has identified 15,000 families (approximately 60,000 people) without power on the Navajo reservation.⁴⁶ Through the Coronavirus Aid Relief and Economic Security (CARES) Act, the Navajo Nation was awarded “\$13.8 million in federal coronavirus relief funds to use for power projects; \$24.7 million to increase the capacity of the electrical grid; \$20.9 million for cisterns systems; \$18.6 million for wastewater systems; and \$32.8 million to expand wireless and broadband.”⁴⁷ NTUA plans to extend electricity to

510 families, and to extend telecommunications and water facilities and services on the reservation by the December 2020 deadline to use the funds.⁴⁸

“The United States government should commit to and fund Native American infrastructure needs.”

The United States government should commit to and fund Native American infrastructure needs. Doing so requires more than one-time funding such as the CARES program that envisions a dramatically accelerated construction pace as winter looms. Support for Native American infrastructure programs must recognize that matching fund requirements create high participation hurdles.⁴⁹ Non-profits, businesses, and states can assist with matching grants and resources as programs are revamped to redress Native American reservation infrastructure gaps.

Principle 3: Foster Tribal Energy Ownership and Clean Energy Opportunities

The National Renewable Energy Laboratory (NREL) estimated in 2010 that there is “17,600 billion kWh/year of solar energy potential on Indian lands in the lower 48 states.”⁵⁰ NREL estimates the potential for “535 billion kWh/year of wind energy” from “Indian lands in the contiguous 48 states, which is equivalent to 14 percent of current U.S. total annual energy generation.”⁵¹

NREL’s study focused on potential for energy generation including power exports but did not analyze the lack of energy access on many Native

American reservations or the potential for renewables to mitigate the Native American reservation electricity gap. The lack of distribution infrastructure on many Native American reservations makes energy designed for export inaccessible to many homes, businesses, and tribal institutions. “Energy access is a predicate for energy justice.”⁵²

A microgrid on the Blue Lake Rancheria in Humboldt County, California illustrates the benefits of tribal ownership of energy infrastructure. The 1,500 solar panel and battery-powered microgrid is designed to go into “island” mode to safely provide power even when the grid goes down.⁵³ During the “public safety power shutoff” PG&E initiated on October 9, 2019, the Blue Lake Rancheria’s microgrid allowed the tribe to operate “one of the only gas stations in the county with power,” to provide “diesel to United Indian Health Services to refrigerate their medications and to the Mad River Fish Hatchery to keep their fish alive.”⁵⁴ Nearly “10,000 nearby residents came to the [Blue Lake Rancheria] reservation for gas and supplies,” on October 9, 2019 as the microgrid provided a reliable power source.⁵⁵

Between 2010-2018, in support of 170 tribal led energy projects, the U.S. Department of Energy’s (DOE) Office of Indian Energy invested \$70 million, leading to 32 MW of new energy generation on Indian lands.⁵⁶ The Office of Indian Energy provided an average of \$7.8 million per year in federal funding for new renewable energy projects since 2010, adding 18.5 MW of new tribal renewable capacity, including 10.1 MW of solar and 3.2 MW of wind energy.⁵⁷

The Moapa Southern Paiute Solar Project is a 250 MW solar project located on the Moapa River Indian Reservation in Clark County, Nevada.⁵⁸ “The project generates enough clean solar energy to serve the needs of about 111,000 homes per year,” and has “a Power Purchase Agreement with the Los Angeles Department of Water and Power to deliver clean, solar energy for 25 years.”⁵⁹ More opportunities for tribal energy projects remain to help tribes serve their energy needs, develop energy infrastructure, and contribute to our nation’s energy development.

Principle 4: Support Native American Energy Contracting, Employment, and Entrepreneurial Opportunities

Energy justice requires that contracting, employment, and diversity and inclusion policies include Native American tribes, tribal members, and entrepreneurs. As a member of the advisory board for the American Indian Chamber of Commerce of California, I’ve had the honor of collaborating to support Native American entrepreneurs who work in nuclear engineering, business, finance, law, advertising, planning, environmental analysis, construction, and many other fields. Contracting and employment programs must include the many talented Native American leaders and businesses who contribute to the energy field.

Contract policy transparency such as providing access to information about prime contractors will support opportunity and fairness. Capacity building and training to help entrepreneurs meet cybersecurity, bonding, and other requirements can open doors for mutually beneficial work. Access to capital is critical to support Native American tribes

and entrepreneurs. The federal government's Community Development Financial Institutions (CDFI) Native Initiatives program supports "financial, technical assistance, and training to build the capacity of CDFIs serving Native Communities."⁶⁰ Investing in and supporting Native American businesses and institutions that provide capital is critical to economic development and opportunity.

Companies and agencies proposing to work on tribal lands must respect and consult tribal laws, including federal laws and tribal codes designed to build the workforce capacity of tribal members.⁶¹ Tribal laws, such as the Yurok Tribal Code, require companies, including utilities, to employ tribal members for construction projects over \$5000 or non-construction projects over \$2000 where the majority of the work under the contract or subcontract will occur on Yurok lands, or the work utilizes Tribal funds.⁶²

NativeSUN, a native-led non-profit that promotes renewable energy, energy efficiency, and a just energy transition through education and workforce training, provides a model to foster energy and economic opportunities for Native Americans.⁶³ NativeSUN's programs include workforce training, and a Solar Club that provides educational resources to connect "climate change and a just energy transition."⁶⁴

Diversity and inclusion policies must include Native American tribes and tribal members. We need to examine governmental and organizational diversity and inclusion policies to ensure that those policies include Native American tribes and tribal

members. Reference to non-discrimination on the basis of race and ethnicity is insufficient to include Native American tribes who are recognized as sovereign governments and Native American ancestry.

Law schools, bar associations, businesses, governments, law firms, and other institutions should examine and enhance their efforts to support the participation of Native American lawyers in the energy bar. Doing so requires commitment to support education of Native American youth and their studies in college, law, and graduate school. Financial support and professional mentorship are critical to inclusivity in the profession. Opportunities for Native American lawyers and students to serve as presenters at seminars can foster knowledge sharing and highlight diverse talent.

Principle 5: Promote Access to Energy Efficiency and Energy Affordability Programs

Energy efficiency promotes affordability, reliability, and safety as we avert blackouts, and combat climate change. Energy efficiency programs are important for those living on and off Native American reservations.

The Yurok Tribe's Energy Strategic Plan seeks to promote energy efficiency through tribal building codes, CPUC-administered energy efficiency programs, and energy audits.⁶⁵ Energy efficiency programs must recognize the role of tribal governments in providing housing, on and off the reservation, and consider the needs of renters. Many tribal governments run energy efficiency and weatherization programs supported by federal Low Income Heat and Energy Assistance Program

(LIHEAP) funds.⁶⁶ Yet, the federal government has rendered LIHEAP chronically underfunded and unable to meet the needs for energy efficiency and affordability assistance.⁶⁷

When I served as a CPUC Commissioner I found that many energy efficiency programs were designed with a homeowner paradigm that assumed the homeowner could make large up-front investments, often costing \$10,000 or more. This paradigm did not reflect reality five years ago when I was a member of the CPUC, and it remains unrealistic for many households today. The economic downturn, job and income losses caused by the COVID-19 pandemic underscore the need for energy affordability and programs that serve renters, homeowners, tribal governments, and non-profit housing for low-income Americans.

Principle 6: Assess and Address the Impact of Climate Change on Native American Reservations, Tribal Lands, and Native American Tribal Members

Many Native American reservations and Alaska Native Corporations are highly vulnerable to climate change. Sea level rise may inundate tribal lands, including sacred burial grounds. Floods can devastate tribal communities. Poor roads on reservations can become impassable rivers after

downpours. Native Americans living on tribal lands face high wildfire risks, dangers elevated by drought and lack of access to telecommunications, electric, and water service.⁶⁸

Karuk Tribal Chairman Russel “Buster” Attebery spoke to my Energy Law Class at Santa Clara University via Zoom in September 2020. Chairman Attebery shared the Karuk Tribe’s philosophy that if you “take care of the ecology, the economy will follow.” This philosophy can steer policies to promote economic opportunity while protecting people and the environment.

D. Building American Infrastructure and Achieving Energy Justice Through Tribal Leadership

Through consultation with tribal leadership, we can collaborate to promote energy justice. As our nation works to heal long-standing inequities and to promote health and opportunity amid the COVID-19 pandemic, closing the Native American reservation infrastructure gaps must be a national priority.

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¹ Catherine J.K. Sandoval, *Energy Access is Energy Justice, The Yurok Tribe’s Trailblazing Work to Close the Native American Reservation Electricity Gap*, in ENERGY JUSTICE, US AND INTERNATIONAL PERSPECTIVES (Edward Elgar, pub. Raya Salter, Carmen G. Gonzalez, and, Elizabeth Ann Kronk Warner, eds., 2018),

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3557121.

² Virginia Escalante, *Montebello Hires Firm to Advise City on Underground Gas Storage*, LOS ANGELES TIMES, May 9, 1985, <https://www.latimes.com/archives/la-xpm-1985-05-09-hl-7078-story.html>.

³ Richard Holguin, *Gas Leak Renews Fears Over Methane Under Montebello*, LOS ANGELES TIMES, Dec. 21, 1986, <https://www.latimes.com/archives/la-xpm-1986-12-21-hd-3856-story.html>; Steve Scauzillo, *15 Years Later, Montebello Wonders Why Its Gas Wells Are Still Operating, Leaking*, SAN GABRIEL VALLEY TRIBUNE, April 8, 2016, <https://www.sgvtribune.com/2016/04/08/15-years-later-montebello-wonders-why-its-gas-wells-are-still-operating-leaking/> (“When natural gas stored a mile and half under the city of Montebello leaked into people’s homes between the

1970's and 1990's, 13 homes were demolished, properties were seized and many wells were capped."); CPUC, Decision 01-06-081, OPINION APPROVING AMENDED SETTLEMENT, WITH MINOR CONDITIONS, Application 00-04-031, June 28, 2001 (approving the settlement to close the natural gas storage field in Montebello, California).

⁴ EIA, ENERGY CONSUMPTION AND RENEWABLE ENERGY DEVELOPMENT POTENTIAL ON INDIAN LANDS, 3 fig. 1 (April 2000), <https://www.energy.gov/sites/prod/files/2017/06/f34/EIA2000.pdf>; Charlie Lapastora, *Navajo Families Who've Never Had Electricity Are For the First Time Seeing The Light*, FOXNEWS, Sept. 20, 2019, <https://www.foxnews.com/us/electricity-navajo-power-utility-nation-native-american>; Rocky Mountain Institute, *Native Energy: Rural Electrification on Tribal Lands*, June 24, 2014, https://rmi.org/blog_2014_06_24_native_energy_rural_electrification_on_tribal_lands/.

⁵ United States Census Bureau, American Community Survey, at 9, 2020, <https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2020/quest20.pdf>.

⁶ *Id.*

⁷ Sandoval, *supra* note 1, at 166 (quoting Tracy Stanhoff, President & Creative Director, AD PRO, Former Tribal Chair, Prairie Band Potawatomi Nation, President, American Indian Chamber of Commerce of CA, Native American Chamber of Commerce of California Expo, Address at the Native American Infrastructure Summit (July 24, 2017)).

⁸ CDC, *COVID-19 Among American Indians and Alaska Native Persons – 23 States, Jan. 31-July 30, 2020*, 69 *Morbidity and Mortality Weekly Report* (Vol. 34), 1166, Aug. 28, 2020, <https://www.cdc.gov/mmwr/volumes/69/wr/mm6934e1.htm>.

⁹ *Id.*

¹⁰ Navajo Department of Health, *Dikos Ntsaaígíí-19 (COVID-19)*, <https://www.ndoh.navajo-nsn.gov/COVID-19>.

¹¹ Kurtis Lee, *No Running Water. No Electricity. On Navajo Nation, Coronavirus Creates Worry And Confusion As Cases Surge*, LOS ANGELES TIMES, March 29, 2020, <https://www.latimes.com/world-nation/story/2020-03-29/no-running-water-no-electricity-in-navajo-nation-coronavirus-creates-worry-and-confusion-as-cases-surge> (reporting that the Navajo Reservation is larger in land mass than the state of West Virginia, has 175,000 residents, and four in-person hospitals); Dig Deep, U.S. Water Alliance, *CLOSING THE WATER ACCESS GAP IN THE UNITED STATES*, 2019 ("Our analysis of the American Community Survey found that race is the variable most strongly associated with access to complete plumbing. Nationwide, 0.3 percent of white households lack complete plumbing, as compared to 0.5 percent of African-American and Latinx households, and 5.8 percent of Native American households. That means that African-American and Latinx households are nearly twice as likely to lack complete plumbing than white households, and Native American households are 19 times more likely.") (internal citations omitted).

¹² Shondiin Silversmith, *I used to stay here in the dark': Utility workers from across the country light up the Navajo Reservation*, AZCENTRAL, May 22, 2019, <https://www.azcentral.com/story/news/local/arizona/2019/05/22/arizona-light-up-navajo-project-tribal-utility-authority-srp-brings-electricity-reservation-homes/3741873002/>.

¹³ CDC, *supra* note 8.

¹⁴ Sandoval, *supra* note 1, at 207; Yurok Tribe, *ENERGY PATHS FOR THE YUROK PEOPLE*, at 6, Report No.: DOE-YUROK-0000080, January 2020, <https://www.osti.gov/servlets/purl/1599208> [hereinafter *Yurok Tribe, Energy Paths for the Yurok People*] ("lack of land for economic development and community facilities, inadequate telecommunications and electrical infrastructure, and a grossly substandard transportation system inhibit chances for economic growth, access to health care, educational opportunities and job opportunities.").

¹⁵ Miranda Green, *For Native Americans, Fighting This Year's Wildfires Comes With The Cost Of Exposure To Coronavirus*, OREGONLIVE/THE OREGONIAN, Sept. 25, 2020, <https://www.oregonlive.com/coronavirus/2020/09/for-native-americans-fighting-this-years-wildfires-comes-with-the-cost-of-exposure-to-coronavirus.html>.

¹⁶ Frankie Myers, Vice Chairman, Yurok Tribe, *Testimony Regarding Natural Solutions to Cutting Pollution and Building Resilience United States House of Representatives*, Select Committee on the Climate Crisis (October 22, 2019) ("Since time immemorial, the Yurok Tribe has acted purposefully to serve as responsible stewards of our land, culture, air, and water resources, and we will continue to expand and advance our capacity to restore and manage these resources for Yurok people."); Anthony Peirson Xavier Bothwell, *We Live in Their Land: Implications of Long-Ago Takings of Native American Indian Property*, 6 ANN. SURV. INT'L & COMP. L. 175, 177 (2000) ("By the time European explorers began arriving along the Atlantic seaboard, Native American nations already were well-established. In fact, the Indian nations possessed the requisite attributes of sovereign, independent states under international law as then it existed.")

¹⁷ See e.g. *Cherokee Nation v. State of Ga.*, 30 U.S. 1, 17 [8 L.Ed. 25] (1831) (recognizing "Indian" tribes as sovereign governments that exist within the United States as "domestic dependent nations."); *Worcester v. State of Ga.*, 31 U.S. 515, 559 [8 L.Ed. 483] (1832) ("The Indian nations had always been considered as distinct, independent political communities, retaining their original natural rights, as the undisputed possessors of the soil, from time immemorial, with the single exception of that imposed by irresistible power, which excluded them from intercourse with any other European potentate than the first discoverer of the coast of the particular region claimed: and this was a restriction which those European potentates imposed on themselves, as well as on the Indians.").

¹⁸ See e.g., YUROK CONST., Pmb1., 2, <http://yuroktribe.org/government/councilsupport/documents/Cconstitution.pdf> (last visited Feb. 15, 2018) ("Our social and ecological balance, thousands and thousands of years old, was shattered by the invasion of the non-Indians. We lost three-fourths or more of our people through unprovoked massacres by vigilantes and the intrusion of fatal European diseases.").

¹⁹ Sandoval, *supra* note 1 at 176 (citing *Mattz v. Arnett*, 412 U.S. 481, 490 (1973) (holding that Congress did not terminate the Klamath River Indian Reservation through the Act of April 8, 1864 which authorized the sale of land held in trust for tribes)).

²⁰ *Indian Entities Recognized by and Eligible to Receive Services From the United States Bureau of Indian Affairs*, 85 Fed. Reg. 5462 (2020); *see e.g.*, *Puerto Rico v. Sanchez Valle*, ___ U.S. ___, 136 S. Ct. 1863, 1866 (2016) (noting that Indian tribes are separate sovereigns from the U.S. federal government or states).

²¹ *See e.g.*, *Confederated Tribes and Bands of Yakima Indian Nation v. FERC*, 746 F.2d 466, 474 (9th Cir. 1984) (FERC violated its duty by failing to consult with Indian tribes prior to dam license issuance); *Cal. Wilderness Coal. v. U.S. Dept. of Energy*, 631 F.3d 1072, 1088 (9th Cir. 2011) (“We noted that it was not enough to give notice to the agencies and Indian tribes, as the ‘consultation obligation is an affirmative duty.’”); General Services Administration, Native American Tribal Consultation, Feb. 26, 2019, <https://www.gsa.gov/real-estate/historic-preservation/historic-preservation-policy-tools/legislation-policy-and-reports/section-106-of-the-national-historic-preservation-act/native-american-tribal-consultation>.

²² *See e.g.*, *Cheyenne River Sioux Tribe v. U.S. Army Corps of Engineers*, ___ F. Supp. 3d ___, 2020 WL 3634426, at *1 (D.D.C., July 6, 2020, No. CV 16-1534 (JEB)) (finding Army Corps of Engineers violated the National Environmental Policy Act when it failed to produce an Environmental Impact Statement [EIS] that analyzed the effect of the Dakota Access pipeline); *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 440 F. Supp. 3d 1, 9–10 (D.D.C. 2020) (finding that an EIS is required to consider un rebutted expert critiques of natural gas pipeline that crosses beneath Lake Oahe, created following Congress taking lands from Native American tribes).

²³ *See U.S. v. Jicarilla Apache Nation*, 564 U.S. 162 (2011) (“in fulfilling its statutory duties, the [federal] Government acts not as a private trustee, but pursuant to its sovereign interest in the execution of federal law.”) (citations omitted).

²⁴ *Alaska v. Native Vill. of Venetie Tribal Gov’t*, 522 U.S. 520, 523–524 (1998).

²⁵ *See e.g.*, Laura Palen Eichenberger, *Living in Utility Scarcity: Energy and Water Insecurity in Northwest Alaska*, 100 AM J. OF PUBLIC HEALTH, 1010 (2010), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866609/>.

²⁶ *See e.g.*, Sandoval, *supra* note 1, at 178 (“The grant of an easement or right-of-way on tribal trust land (including a utility easement) requires the Interior Secretary’s approval under 25 U.S.C. § 319 as well as ‘the consent of the proper tribal officials.’”) (citing Marian C. LaLonde, *Federal Management of Tribal Lands and Resources, Energy and Mineral Development in Indian Country*, 2014 NO. 5 RMMLF-INST PAPER NO. 3, 3–11 (2014)); United States Dept. of the Interior, Indian Affairs, Working on Indian Lands, <https://www.bia.gov/as-ia/ieed/division-energy-and-mineral-development/working-indian-lands> (last visited Sept. 28, 2020).

²⁷ *See e.g.*, U.S. GEOLOGICAL SURVEY, SURVEY MANUAL, 500.6 - AMERICAN INDIAN AND ALASKA NATIVE TRIBAL RELATIONS, Sept. 14, 2020, <https://www.usgs.gov/about/organization/science-support/survey-manual/5006-american-indian-and-alaska-native-tribal>.

²⁸ *Pub. Serv. Co. of N.M. v. Barboan*, 857 F.3d 1101, 1104 (10th Cir. 2017) (“federal law does not permit condemnation of tribal land [under state eminent domain law],” accordingly, a public utility does not have a statutory right to condemn a right-of-way on land held in trust for Native Americans).

²⁹ *U.S. v. Shoshone Tribe of Indians of Wind River Reservation in Wyo.*, 304 U.S. 111, 116 (1938) (“Minerals and standing timber are constituent elements of the land itself.”).

³⁰ *See e.g.*, *Trying to Tame the Klamath River Filled It with Toxic Algae*, SCIENTIFIC AMERICAN, Aug. 10, 2020, <https://www.scientificamerican.com/article/trying-to-tame-the-klamath-river-filled-it-with-toxic-algae/>.

³¹ *Yurok Tribe, Energy Paths for the Yurok People*, *supra* note 14, at 8; Russell ‘Buster’ Attebery and Joseph L. James, Chairman of the Karuk Tribe, Chairman of the Yurok Tribe, respectively, *Opinion: Pacificorp Should Move Forward With Historic Klamath Dams Agreement*, OREGONLIVE/OREGONIAN, Aug. 3, 2020, <https://www.oregonlive.com/opinion/2020/08/opinion-pacificorp-should-move-forward-with-historic-klamath-dams-agreement.html> (“For us, dam removal is absolutely necessary to restore our struggling fisheries, maintain cultural practices, and provide tribal members who struggle to make ends meet access to traditional subsistence foods.”).

³² Thadeus Greenson, ‘Monuments to Colonialism:’ With Klamath Dam Removal at an Impasse, Huffman Calls Congressional Forum, NORTH COAST JOURNAL OF POLITICS, PEOPLE, AND ART, Aug. 17, 2020, <https://www.northcoastjournal.com/NewsBlog/archives/2020/08/17/monuments-to-colonialism-with-klamath-dam-removal-at-an-impasse-huffman-calls-congressional-forum>.

³³ *PacifiCorp*, 172 F.E.R.C. ¶ 61,062 (2020).

³⁴ Sandoval, *supra* note 1, at 172.

³⁵ *Id.* at 171; Lapastora, *supra* note 4.

³⁶ Sandoval, *supra* note 1, at 169–170, 171–172.

³⁷ *Id.* at 170 (citing CPUC D. 94-12-026; CPUC D. 97-12-098; CPUC D.07-07-019 (July 12, 2007)); *Cf.* Lapastora, *supra* note 4 (“Depending on the terrain [on the Navajo Reservation], it costs an average home \$60,000 to \$70,000 for a[n electric] utility line that is around a mile long.”).

³⁸ *Yurok Tribe, Energy Paths for the Yurok People*, *supra* note 14, at 6; Sandoval, *supra* note 1, at 194.

³⁹ *Yurok Tribe, Energy Paths for the Yurok People*, *supra* note 14, at 8.

⁴⁰ *Yurok Tribe, Yurok Tribe Installs Grant-Funded Solar Panel*, TIMES STANDARD, Dec. 19, 2019, <https://www.times-standard.com/2019/12/19/yurok-tribe-installs-grant-funded-solar-panel/>.

⁴¹ *Yurok Tribe, Energy Paths for the Yurok People*, *supra* note 14, at 6.

⁴² Charitable Foundation of the Energy Bar Association (CFEBA), CORNERSTONE PROJECT 2020 (LAST VISITED SEPT. 29, 2020), <https://www.eba-net.org/cfeba/our-impact/cornerstone-project-2020/>.

⁴³ *Id.*; Yurok Tribe, *Energy Paths for the Yurok People*, *supra* note 14, at 6.

⁴⁴ Yurok Tribe, *Energy Paths for the Yurok People*, *supra* note 14, at 31 <https://www.ntua.com/light-up-navajo.html>.

⁴⁶ Lapastora, *supra* note 4.

⁴⁷ Associated Press, *Virus relief helps bring electricity to Navajo Nation homes*, NAVAJO-HOPI OBSERVER, Sept. 7, 2020, <https://www.nhnews.com/news/2020/sep/07/virus-relief-helps-bring-electricity-navajo-nation/>.

⁴⁸ *Id.*

⁴⁹ See Sandoval, *supra* note 1, at 184 (“RUS [Rural Utility Service] programs have been chronically underfunded. RUS grants require matching funds, causing hardships when tribes do not have other sources of revenue to support project development or the grant match.”).

⁵⁰ Douglas MacCourt, RENEWABLE ENERGY DEVELOPMENT IN INDIAN COUNTRY: A HANDBOOK FOR TRIBES A PROJECT FOR THE NATIONAL RENEWABLE ENERGY LABORATORY (NREL) 2 (June 2010), <https://www.nrel.gov/docs/fy10osti/48078.pdf>.

⁵¹ *Id.* at 1-2.

⁵² Sandoval, *supra* note 1, at 166.

⁵³ Erik Neumann, *California Reservation's Solar Microgrid Provides Power During Utility Shutoffs*, NPR, KQED, Jan. 11, 2020, <https://www.npr.org/2020/01/11/795248921/california-reservations-solar-microgrid-provides-power-during-utility-shutoffs>.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ Office of Indian Energy Policy and Programs, U.S. Dept. of Energy, TRIBAL ENERGY PROJECT SUCCESS, <https://www.energy.gov/indianenergy/projects/tribal-energy-project-successes> (last visited Sept. 28, 2020).

⁵⁷ Silvio Marcacci, *Could This New Approach Unlock Gigawatts Of Native American Solar Energy Potential?* FORBES, June 24, 2019, <https://www.forbes.com/sites/energyinnovation/2019/06/24/could-this-new-approach-unlock-gigawatts-of-native-american-solar-energy-potential/#8d38a4662509>.

⁵⁸ First Solar, The Moapa Southern Paiute Solar Project, <http://www.firstsolar.com/Resources/Projects/Moapa-Southern-Paiute-Solar-Park> (last visited Oct. 7, 2020).

⁵⁹ *Id.*

⁶⁰ U.S. Dept. of the Treasury, Community Development Financial Institutions (CDFI) Native Initiatives, <https://www.cdfifund.gov/programs-training/Programs/native-initiatives/Pages/default.aspx> (last visited Oct. 7, 2020).

⁶¹ See e.g., The Indian Self-Determination Act, Section 7(b) of Public Law 93-638 (providing for Indian preference in employment, training, and contracting or subcontracting on all contracts negotiated or let on behalf of an Indian tribe).

⁶² Yurok Tribe, Tribal Code, Title 5, Employment Code, 5.05.050, <https://yurok.tribal.codes/YTC/5.05.050>.

⁶³ NativeSUN, About, <https://www.nativesun.org/our-mission> (last visited Sept. 28, 2020).

⁶⁴ *Id.*

⁶⁵ Yurok Tribe, *Energy Paths for the Yurok People*, *supra* note 14, at 7.

⁶⁶ U.S. Dept. of Health and Human Services, TRIBAL LIHEAP PROGRAM CHARACTERISTICS, <https://liheapch.acf.hhs.gov/tribal> (last visited Oct. 7, 2020).

⁶⁷ Sandoval, *supra* note 1, at 196.

⁶⁸ Catherine J.K. Sandoval & Patrick Lanthier, *Connect the Whole Community; Leadership Gaps Drive Disaster Vulnerability and the Digital Divide in TECHNOLOGY VS GOVERNMENT: THE IRRESISTIBLE FORCE MEETS THE IMMOVABLE OBJECT* (Emerald Pub., Lloyd Levine, Ed.) (in press, Fall 2020) (citing I. Davies, *et al.*, *The Unequal Vulnerability Of Communities Of Color To Wildfire*, 13 PLOS ONE (Vol. 11) (2018), <https://doi.org/10.1371/journal>.

