

EBA BRIEF

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

ON THE DOCKET

EBA PRESIDENT'S INTRODUCTION

ACHIEVING EQUITY IN OUR INDUSTRY pg. [3]

BY PAULA R. GLOVER

ACCEPTING THE CHALLENGE pg. [8]

BY JOANN CHÁVEZ

PROMOTING RACIAL JUSTICE IN THE ELECTRIC UTILITY SECTOR pg. [13]

BY GIL C. QUINIONES

RURAL ELECTRIC COOPERATIVE PROGRAMS EMBODY DIVERSITY, EQUITY AND INCLUSION pg. [16]

BY CURTIS WYNN

JUST TRANSITION TO RENEWABLE ENERGY COMING JUST IN TIME FOR APPALACHIA pg. [22]

BY LAURA M. MARTIN

PRINCIPLES TO ADVANCE ENERGY JUSTICE FOR NATIVE AMERICANS pg. [28]

BY CATHERINE J.K. SANDOVAL



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, Quoctrung 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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PRINCIPLES TO ADVANCE ENERGY JUSTICE FOR NATIVE AMERICANS

By CATHERNIE J.K. SANDOVOL

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." 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 sufficient with COVID-19 states 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. Large portions of the Navajo Nation have no access to grid electricity or running water. 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 communications buildout and as they 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. Tribal governments predate the U.S. Constitution, and are entitled to respect as sovereign governments. Despite massacres of Native Americans by settlers (often with federal or state government knowledge and support), diseases brought by settlers, and attempts to terminate several Native American reservations, the federal government recognizes 574 Native American tribes, 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. 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. 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 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 microgrid project at its Tulley Creek Complex on the Yurok Reservation "which includes infrastructure such as a fire center and emergency services office."42 The micro-grid will increase reliability while the Yurok Reservation "faces frequent and increasingly 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. NTUA has identified 15,000 families (approximately 60,000 people) without power on the Navajo reservation. 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." 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." 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 Rancherial 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. 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. 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." 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. 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

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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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For a full bio, please visit here.

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-latermontebello-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.

https://www.cdc.gov/mmwr/volumes/69/wr/mm6934e1.htm.
⁹ *Id.*

28, 2020,

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/norunning-water-no-electricity-in-navajo-nation-coronaviruscreates-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/2019/05/2 2/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.: DOEYUROK-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/fornative-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., Pmbl., 2, http://yuroktribe.org/government/councilsupport/documents/C onstitution.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 unrebutted 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-mineraldevelopment/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-alaskanative-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).

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.

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.*

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).
 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.

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.nhonews.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).