

The Native American Reservation Electricity Gap; The Yurok Tribe's Trailblazing Leadership to Provide Energy Access and Energy Justice



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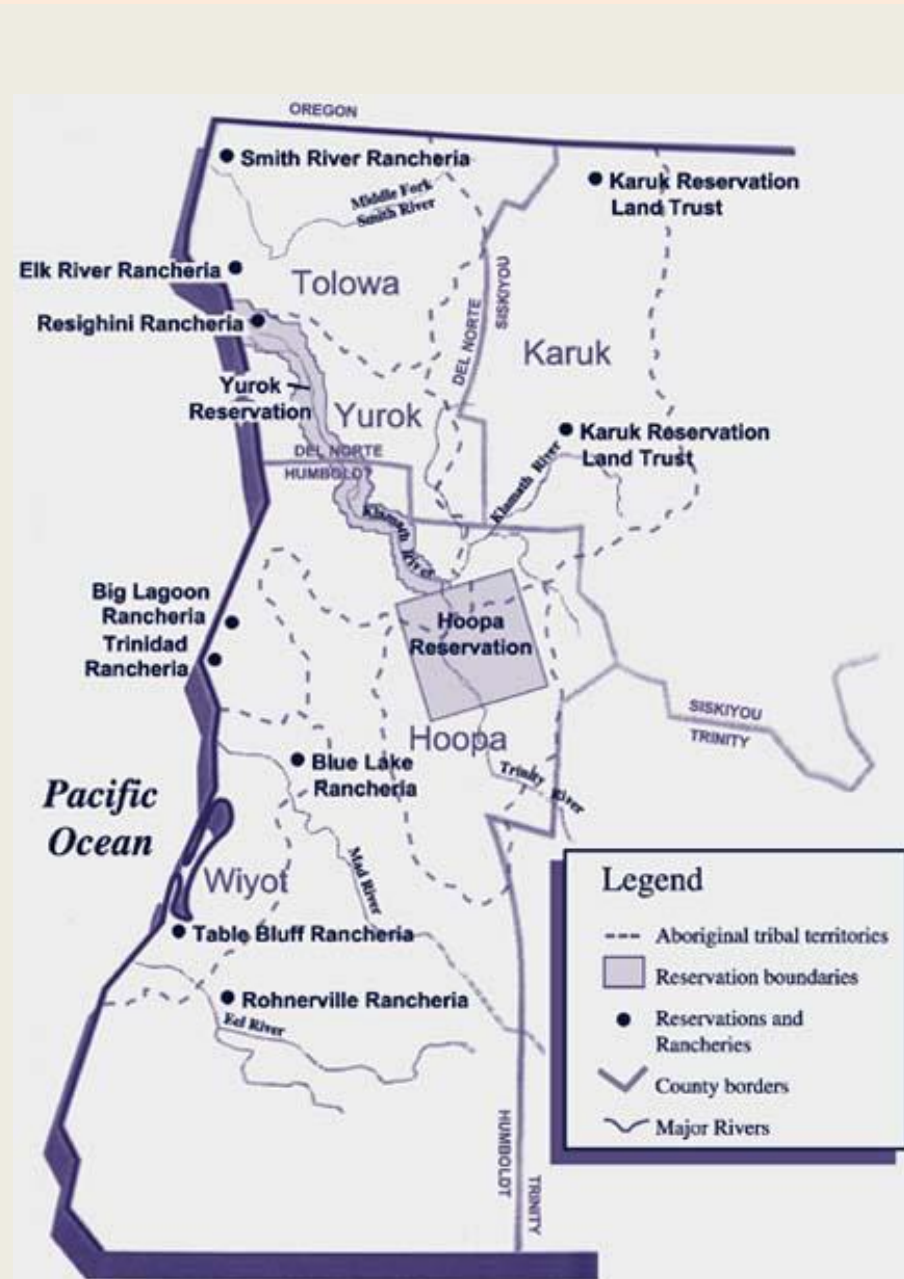
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The Native American Reservation Electricity Gap

- In the continental United States, Native Americans living on reservations are the Americans most likely to lack electricity access in the twenty-first century.
- The U.S. Energy Information Administration reported in 2000 that 14% of households on Native American reservations have no access to electricity, compared to 1.4% nationally
- The Native American Reservation Electricity Gap is not well quantified or documented.

California is Home to 109 Federally Recognized Tribes



The Native American Reservation Electricity Gap

- Javier Kinney, Esq., Executive Director of the Yurok Tribe, observed in a 2013 interview that in the Weitchpec area of the Yurok Reservation:
 - *Swaths of homes don't have electricity, phone service, or Internet connectivity*
- 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

The Yurok Reservation, in The Klamath River Region of
Northwestern California.

Electric and Communications Infrastructure was largely absent prior to
their Yurok Tribe's Infrastructure Initiatives Beginning in 1990





*Jack Norton Elementary School on the Yurok Reservation lacked electricity access until August 31, 2018 when the electric line the Yurok Tribe developed was energized.
*Telephone service is provided through the Yurok Tribe's links.
*Electricity and Communications are Interconnected Infrastructures.

Jack Norton Elementary School, a California-run public elementary school run by the Klamath/Trinity School District, was powered since 1959 by diesel generators that consumed about 6,000 gallons of diesel per year, costing approximately \$18,000, and emitting pollutants that harm health and drive climate change





*The diesel generators the school district used for decades at Jack Norton Elementary School emitted high levels of small particulates, PM 2.5, that contribute to ill-health and climate change

* Diesel generators at Jack Norton Elementary School ran at an 84 decibel sound level, as measured in September 2014.

* In January 2017 the diesel generators in a tent next to the cafeteria ran at 90 Decibels, machine shop Levels.

*A propane generator replaced the diesel generator in 2018.

* The school runs on the generator when electricity fails, often for days or a week at a time

*Absence of electric infrastructure on many parts of the Yurok Reservation including many students' and teachers' homes causes high reliance on polluting diesel generators that contribute to ill-health, climate change, and poverty

* Infrastructure absence limits economic, social, and civic opportunities, contributes to pollution and climate change



Themes Driving the Electricity, Energy Access, and Energy Justice Gaps

- Federal Policies to:
- **Fracture:** Fracture Tribal Identity
- **Fragment:** Fragment Tribal Landholding
- **Funnel:** Funnel Tribal Resources
- **Federalism:** States control electric distribution lines and service, but did not consider Native American Reservation utility needs in shift from universal service to cost-recovery policies.
- The Federal Government has never made providing Infrastructure, Electricity, Telecom, Water Services, and other services, on Native American Reservations a policy priority.
- Federal Trust duties to forest management and bills requiring educational and health equity require federal action consistent with evolving standards

Federal Policies Sought to Fracture Tribal Identity

- The U.S. Federal Government sought to fracture tribal identity to open land and resources to settler occupation and miners
- Land fragmentation was a primary means of fracturing tribal identity to funnel tribal resources to others.
- The resulting land ownership checkerboard poses challenges to infrastructure development and construction



Fragment Tribal Landholding to Fracture Tribal Identity and Tribal Resources

- The General Allotment Act of 1887, the “Dawes Act,” sought to break up reservations by encouraging the transfer of land designated for “Indian Reservations” to individuals.
- Wielded like Thor’s hammer at the heart of reservations, the Dawes Act authorized the President to allot reservation lands in fee ownership to resident Indians and, “with tribal consent, to sell surplus lands.” When all tribal land was allotted, the federal trust relationship expired and “the reservation could be abolished.”
- The U.S. Court of Appeals for the Tenth Circuit in *Mattz v. Arnett*, 412 U.S. 481, 496 (1973) characterized the Dawes Act’s objectives as “simple and clear cut: to extinguish tribal sovereignty, erase reservation boundaries, and force the assimilation of Indians into the society at large.”

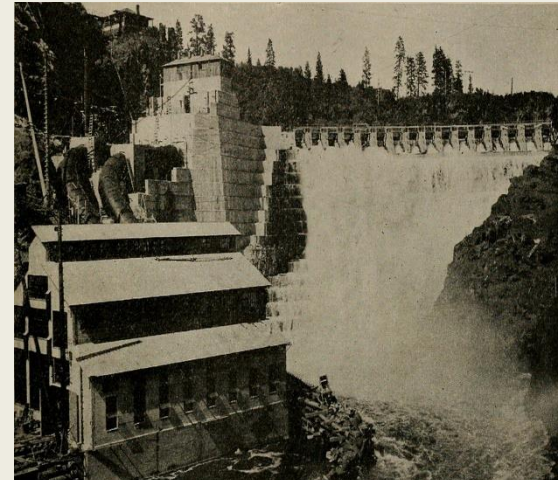
Federal Policies to Funnel Tribal Resources to Others Drive the Native American Reservation Electricity and Infrastructure Gap



- **The “Dam Period”** in the early twentieth century reflected the federal government’s view of land and water as “something to be tamed and brought under control.”
- The federal government launched the Western Reconnaissance mission in 1948 to determine “what surpluses to ultimate local needs might exist in these [Klamath River] streams, and, if any were established, to appraise the feasibility of transferring portions thereof to areas of deficient supply.”
- This question was framed to create a self-fulfilling prophecy.
- Once the dam flooded out the tribes and local population, what ultimate local needs would be left to consider?

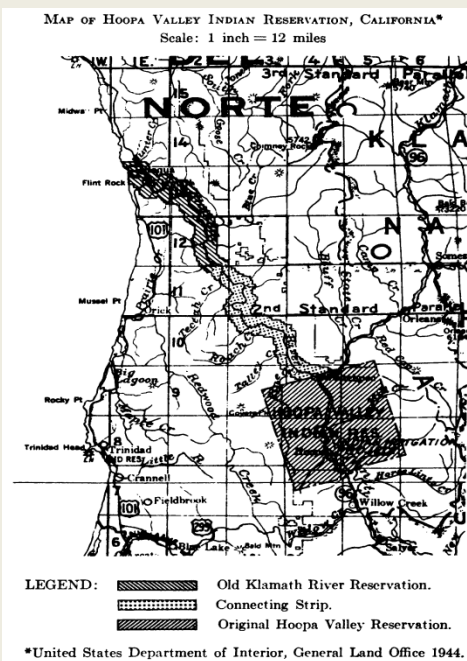
Drivers of the Native American Reservation Electricity and Infrastructure Gap

- The U.S. Bureau of Reclamation's January 1951 INTERIM REPORT ON RECONNAISSANCE detailed a plan to dam the Klamath River and flood the Hoopa Valley Reservation where the Yurok, Hoopa, Karuk, and other tribes lived.
- The Bureau of Reclamation engineered the proposed "Ah Pah Dam" to divert Klamath River water to cities and farms in central and southern California through a 222 mile tunnel connecting to the federal government's California Water Project.
- At 813 feet tall, nearly the height of San Francisco's Transamerica Pyramid, the Ah Pah dam would have been California's largest dam.



Federal Water Diversion Strategies Decreased Native American Reservation Infrastructure Investment

- The 1951 Western RECONNAISSANCE report proposed the Ah Pah dam noting “only relatively minor improvements now exist in this area” of the Hoopa Valley Reservation that then included the areas that since the Hoopa-Yurok settlement Act of 1988 comprise the Yurok Reservation and the Hoopa Valley Reservation contributed to the perception of “only relatively minor improvements” then existing.
- The hydroelectric generator would need transmission facilities designed for a dam.
- Local distribution facilities would have to be dismantled to complete the project.
- Coveting this area for dam construction, the federal government did not fund construction of electric distribution lines to serve tribes and local residents.



Drivers of the Native American Reservation Electricity and Infrastructure Gap

- **Funnel Tribal Resources to Others**
- The INTERIM REPORT ON RECONNAISSANCE omits mention of the Yurok, Hoopa, Karuk and other tribes that would be flooded by the Ah Pah dam, rendering the tribes invisible.
- The report does not use the words “tribe,” “Indian,” or “Native American,” nor does it discuss tribal water rights, tribal sovereignty, or tribal safety.
- Nor does it mention that the Hoopa Valley Reservation was the dam site and proposed inundation zone.
- *Bureaucratic erasure* facilitated the Bureau’s proposed appropriation of tribal lands without consideration of rights of or risks to tribal members and the tribes.

Drivers of the Native American Reservation Electricity and Infrastructure Gap

- **Funnel Tribal Resources to Others**
- The Ah Pah dam was never built due largely to opposition from Los Angeles.
- The report contemplated that Ah Pah dam water would replace 1.2 million acre feet of Colorado River water. Los Angeles and other southern California cities and water users feared that Ah Pah dam construction would be used to pressure them to give up Colorado River water rights. MARK REISNER, CADILLAC DESERT, THE AMERICAN WEST AND ITS DISAPPEARING WATER 280 (1987).
- Aspirations to appropriate tribal water resources deterred investment in electric distribution and transmission resources in areas the government perceived as ripe to be dammed.
- *“Now the people will have enough to live on. Everything that is needed is in water.”* Yurok Creation Story, How Thunder and Earthquake Made Ocean.

Federal Recognition of Tribes

- Following the 1951 publication of the Reconnaissance Report proposing to flood the Hoopa Valley Reservation to create the Ah Pah dam, the Hoopa Tribe organized in 1952 in accordance with the Indian Reorganization Act and obtained federal recognition
- The Hoopa-Yurok Settlement Act of 1988 split the Hoopa Valley Reservation into separate Yurok and Hoopa Reservations.
- That Act also recognized the Yurok Tribe's authority to organize in a form that would lead to formal federal recognition in 1993 after the Tribe's adoption of the Yurok Constitution



Federalism, Coupled with the Absence of Federal Policies to Provide Infrastructure Access on Native American Reservations, Drive Infrastructure Gaps

- The states are in charge of electric distribution lines
- States shifted in the 1980 to 1990s from policies to promote universal service to focus on cost recovery
- Many tribal members cannot afford \$40,000 per mile minimum typically charged in California under CPUC Rule 15 and 16 for electric line extensions or service drops that exceed Rule allowances
- State and federal policies did not adequately consider unserved areas including Native American Reservations

Tribal Leadership is key to closing the Native American Reservation Electricity Gap

- ***Tribal Leadership***: Many tribes have wanted infrastructure for more than a century. Tribal leadership has driven infrastructure development.
- The Yurok Tribe decided that it needed electricity, telephone service, the Internet, water treatment and wastewater service to thrive in the 20th and 21st Centuries and for millennia
- Since the Yurok Tribe's 1990 participation in the CPUC's *Smith River Power v. PG&E* proceeding, the Yurok Tribe, recognized by the Federal Government in 1993, contributes to drive electric, telecom, and water infrastructure development and construction on the Yurok Reservation



The Seal of the Yurok Tribe

Yurok Energy Perspective

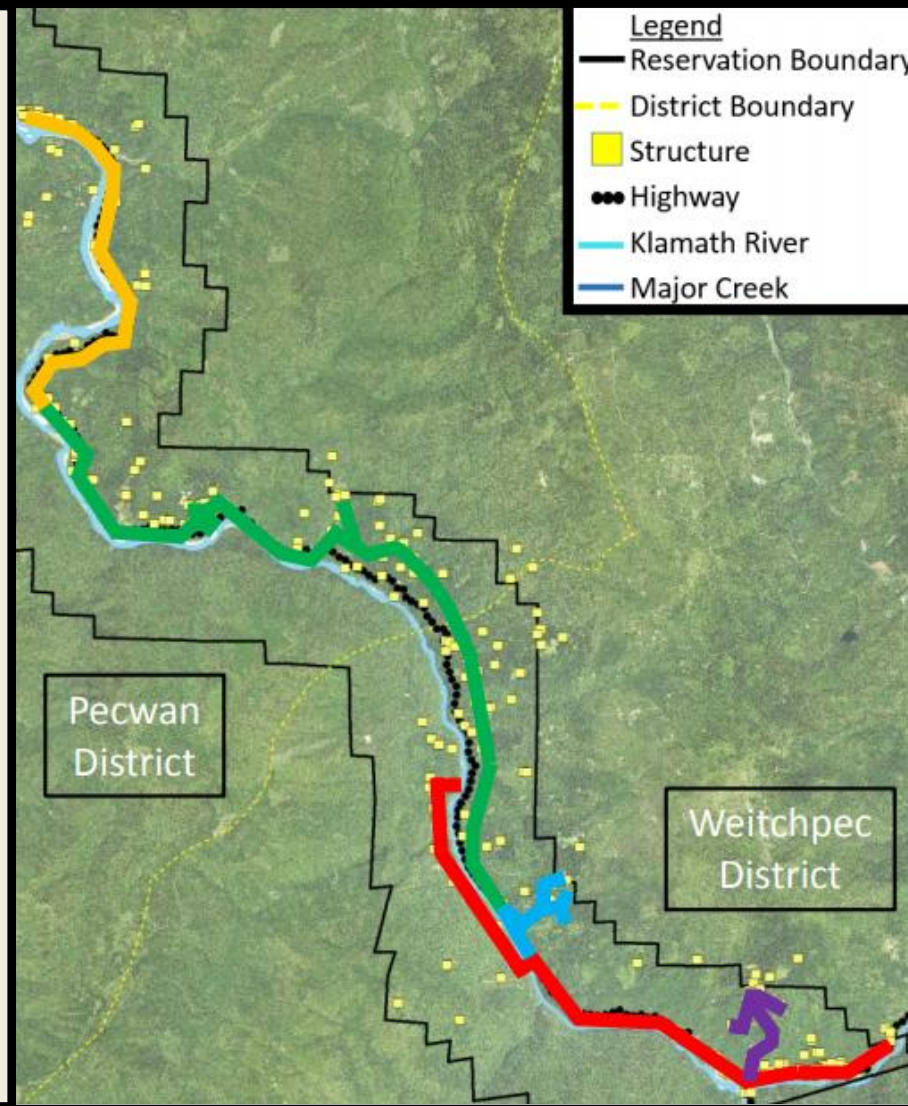
20 years of Progress



History of Electrical Grid Projects, Yurok Reservation

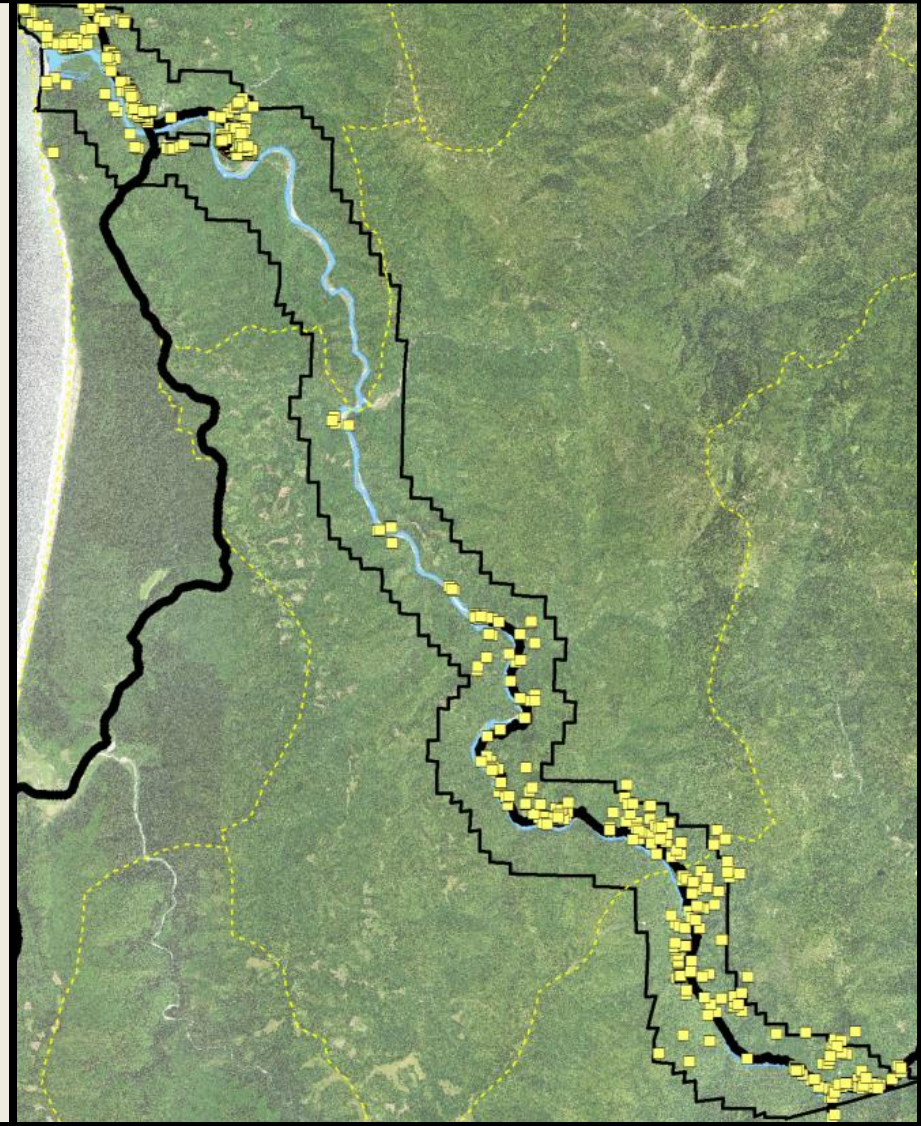
- 2001: Weitchpec/Tulley Creek
- 2003: Lake Prairie Road
- 2006: Mitchel Road
- 2007: McKinnon Hill
- 2010: Wautec Phase I (a)
- 2012: Wautec Phase I (b)
- 2017: Wautec Phase II

Total: \$17.4 Million
Approximately 40+ miles



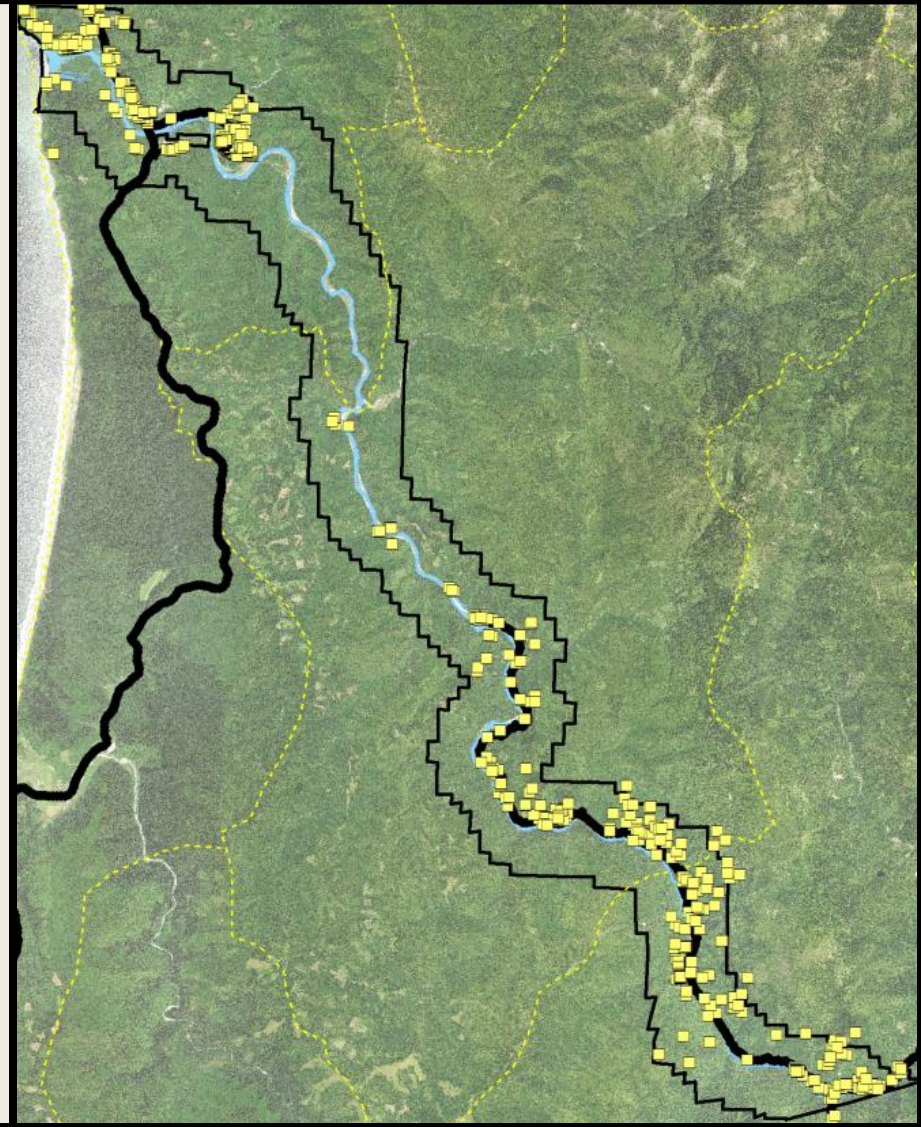
Yurok Reservation Energy Challenges

- Over 40% of upriver Reservation residents (Humboldt Co.) still do not have access to grid energy.
- Off grid residents pay a disproportionate share of their annual income for gas generators, propane appliances, wood stoves, propane, kerosene and wood fuel



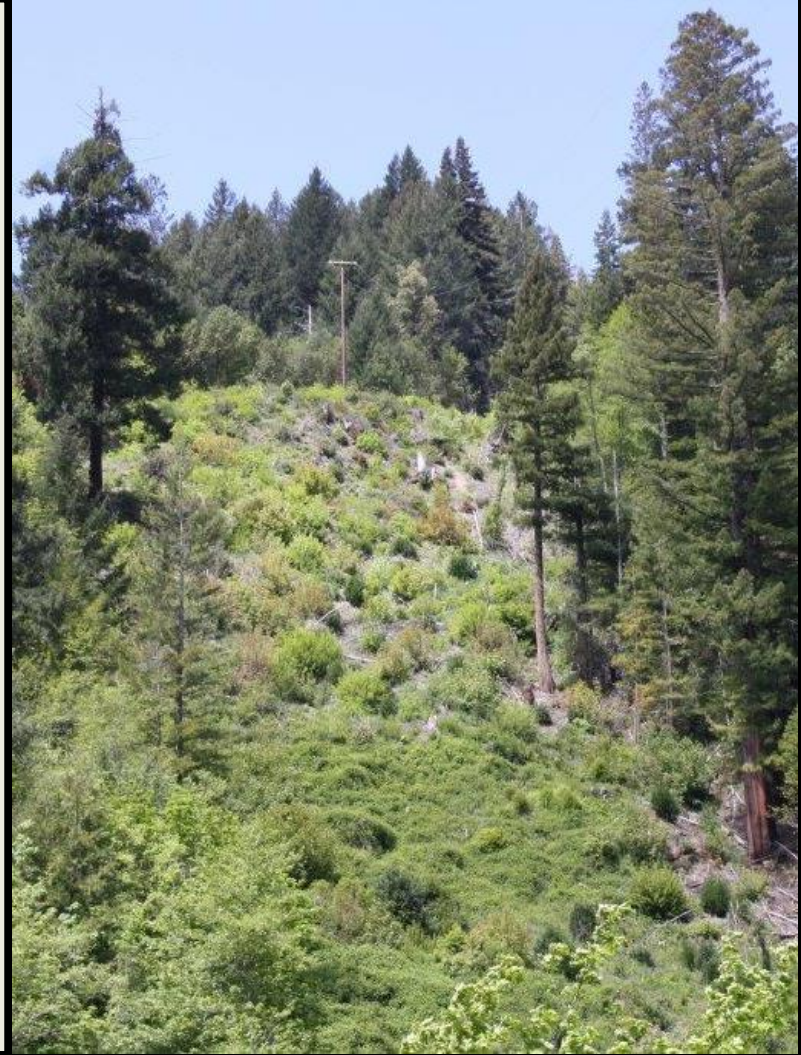
Yurok Reservation Energy Challenges

- Steep and heavily vegetated terrain and one-lane state highway increases the cost of building the electric grid.
- The Yurok Reservation is at the end of two Utility Providers (PG&E and Pacific Power).
 - There is a disconnect between the two utility providers
 - Power outages are frequent and lengthy



Infrastructure Challenges: Right-Of-Way

- Lack of Tribal Condemnation Powers for Right of Way
- Absentee Land Owners Delay Approval of Utility ROWs
- Highly Fractionated Indian Trust Allotments
- Backlog of Probates



Yurok Reservation Energy Opportunities



- Klamath River and tributaries; (residential/community hydro systems)
- High summer temperatures offer seasonal solar opportunities
- Local forests; biomass resources required to power a community scale combined heat power (CHP) system
- Hills; wind energy
- Micro-grids opportunities; communities located in close proximity with each other and renewable fuels sources.
- Currently developing a strategic energy action plan

Yurok Tribe Energy Vision



- To ensure Yurok tribal members, community residents, and reservation businesses have access to reliable, affordable, and cost effective energy services.
- To pursue a tribal energy program that promotes energy self- sufficiency, environmental sustainability, use of local renewable resources, job creation and economic opportunity for tribal members.

Yurok Reservation Infrastructure

Challenges: Economic




- Large percentage of reservation residents live below the poverty line
- Competing needs for limited tribal discretionary funds
- DOE often requires a high grant matching cost (50%)
- CPUC no longer offers grant funds for land line phone services (shared pole costs)
- Lack of tribal funding for a full-time Energy Planner





- ***Energy Access is Energy Justice, The Yurok Tribe's Trailblazing Work to Close the Native American Reservation Electricity Gap, Proposals:***
- The federal government should prioritize and fund infrastructure to Native American Reservations, in consultation with and with consent of Tribes.
- Federal funding should include infrastructure planning funds and not require high levels of matching funds.
- The Yurok Tribe needs funding for matching grants for the grid extension, microgrid projects, and other energy needs
- Government and philanthropic grants can help meet energy needs that improve health, educational, economic, civic, and self-determination opportunities.
- * Yurok 501(3)(c) will seek support to raise matching funds to enable grant applications



Energy Access is Energy Justice, The Yurok Tribe's Trailblazing Work to Close the Native American Reservation Electricity Gap, Proposals:

- * The CPUC should open a proceeding to evaluate the electric line extension and service rules for underserved areas such as Native American Reservations.
- * Analysis of energy utility and service restructuring in California including CPUC proceedings and PG&E's bankruptcy case must include Native American tribal representatives and consider Native American Reservation energy needs
- * California should adopt a bill to support cost of electric extension on reservations to improve health, education, civic and cultural engagement, enable economic opportunities, and reduce environmental burdens from diesel and wood use



Energy Access is Energy Justice, The Yurok Tribe's Trailblazing Work to Close the Native American Reservation Electricity Gap, Proposals:

- *Need academic studies done with tribal consultation to document the Native American Reservation Electricity and Infrastructure Gaps, identify causes, and recommend solutions.
- *Need public and private sector coordination on energy efficiency, innovation for energy service, and support for energy and infrastructure access
- * Energy and infrastructure strategies must include tribal economic opportunities and respect tribal sovereignty

Tribal Consultation is Key

- Consultation and coordination with tribal governments is the foundation for partnerships to address the Electricity Gap and Infrastructure Gap on Native American Reservations
- *Photo:* 2016 Yurok Tribal Council Chairman O'Rourke and Yurok Tribal Council Members Ray and James meet with CPUC Low-Income Oversight Board Members and CPUC Commissioner Sandoval to discuss study of and action to address Yurok Reservation Infrastructure Gaps



Energy Access is Energy Justice; The Yurok Tribe's Trailblazing Work to Close the Native American Reservation Electricity Gap, by
Catherine J.K. Sandoval

- This book chapter is published in:
- ENERGY JUSTICE, U.S. AND INTERNATIONAL PERSPECTIVES, (November 2018)
- Encourage your library to order it:
- <https://www.e-elgar.com/shop/energy-justice>
- <https://www.amazon.com/Energy-Justice-International-Perspectives-Environmental/dp/1786431750>
- Thanks to the Yurok Tribe for their collaboration and research information for the book chapter

Thank you!
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www.Yuroktribe.org

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