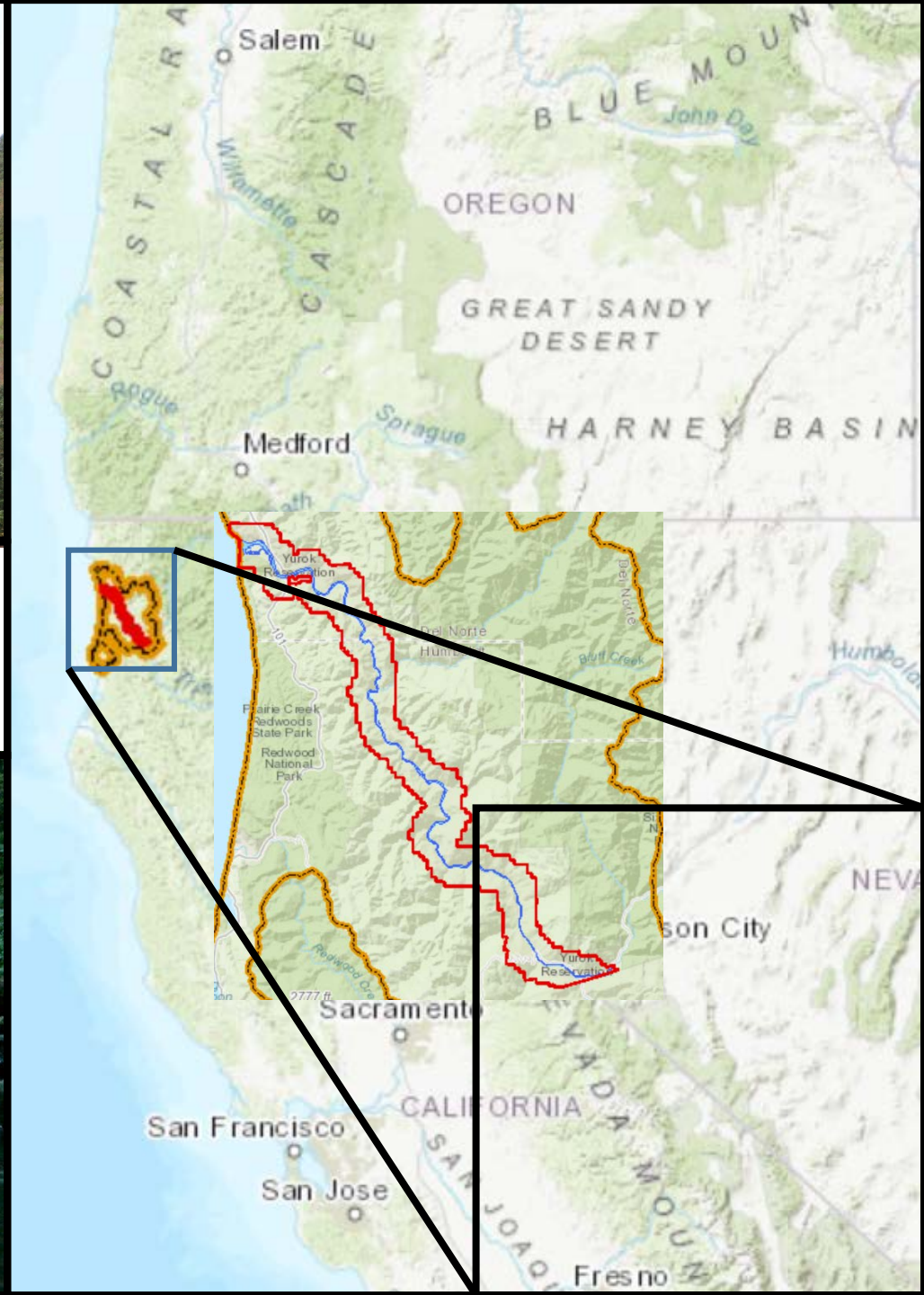


## DOCKETED

<b>Docket Number:</b>	18-IEPR-01
<b>Project Title:</b>	2018 Integrated Energy Policy Report Update
<b>TN #:</b>	223267
<b>Document Title:</b>	IEPR and Siting Lead Commissioner Workshop Peggy O'neil
<b>Description:</b>	Peggy Oâ€™Neill, Yurok Tribe
<b>Filer:</b>	Denise Costa
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	4/24/2018 8:46:52 AM
<b>Docketed Date:</b>	4/24/2018

# Yurok Reservation 18 Years of Electrification

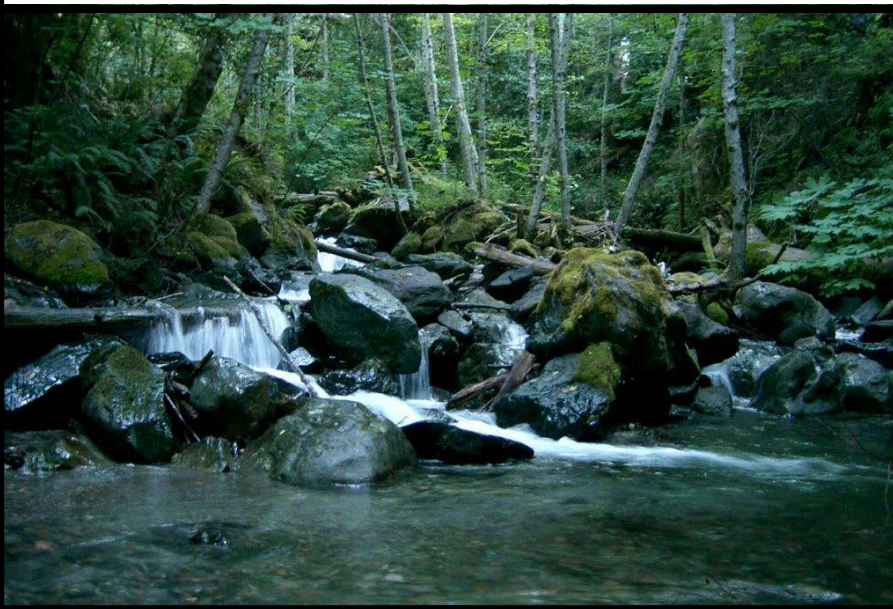




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# Yurok Country

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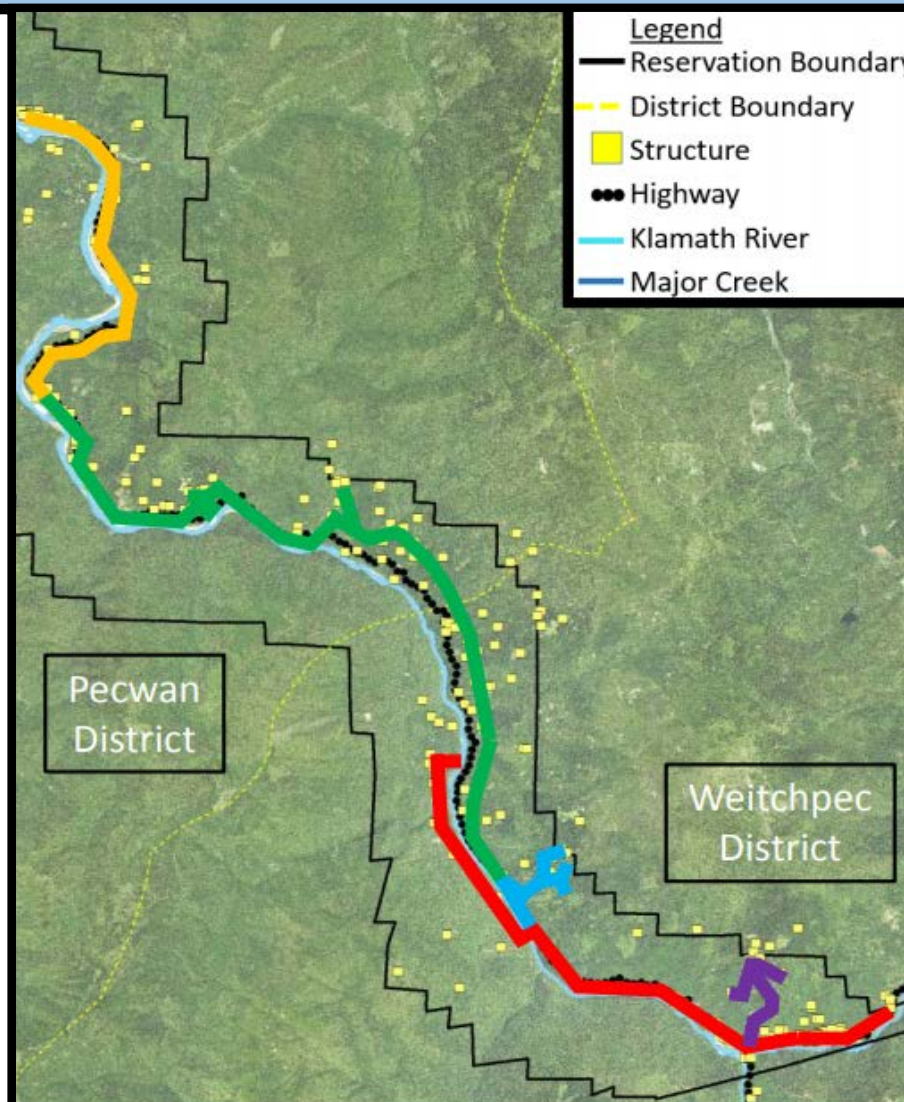


# History of Electrical Grid Projects

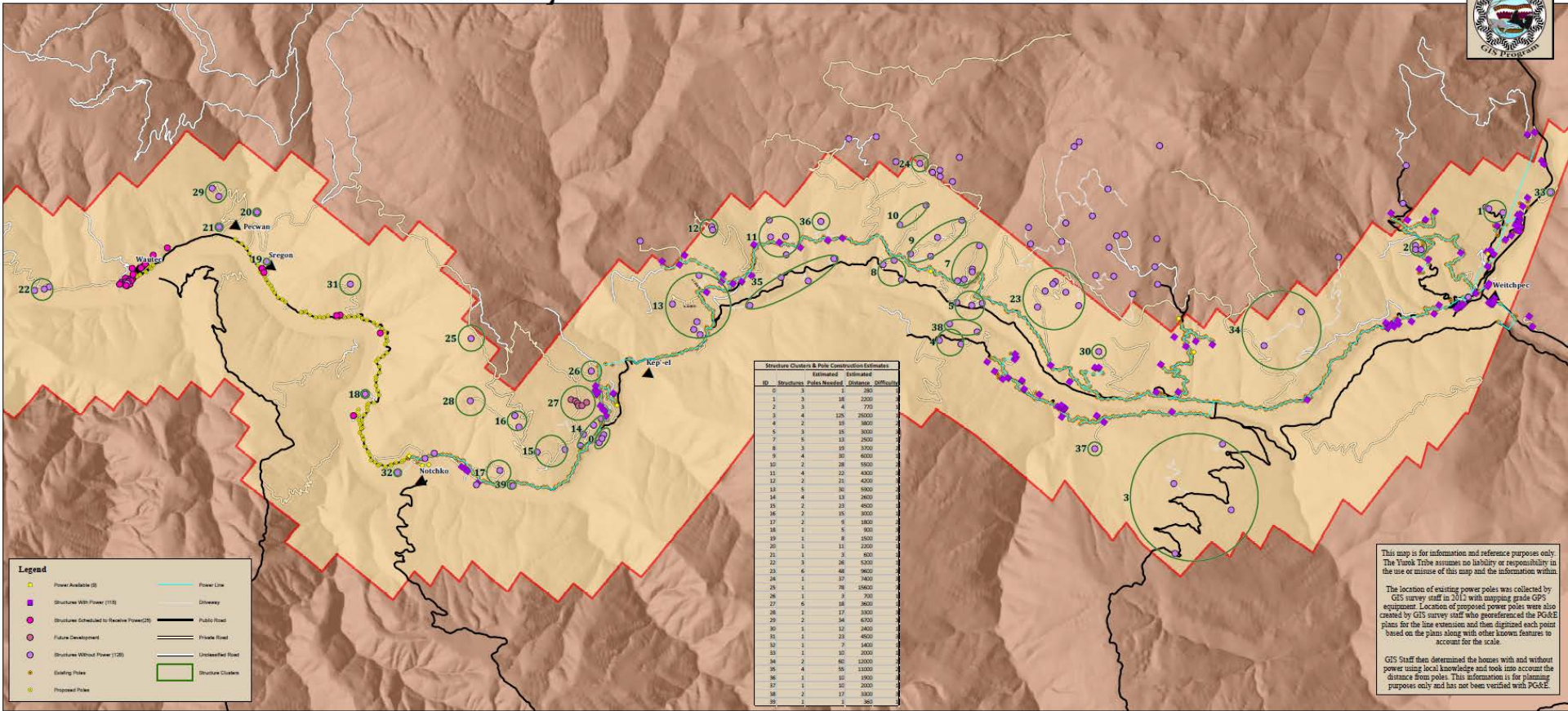


- 2001: Weitchpec/Tulley Creek
- 2003: Lake Prairie Road
- 2006: Mitchel Road
- 2007: McKinnon Hill
- 2010: Wautec Phase I (a)
- 2012: Wautec Phase I (b)
- 2017: Wautec Phase II

Total: \$19.2 Million; 30 Miles



# Electricity Overview for the Yurok Reservation



This map is for information and reference purposes only. The Yurok Tribe assumes no liability or responsibility in the use or misuse of this map and the information within.

The location of existing power poles was collected by GIS survey staff in 2013 with mapping grade GPS equipment. Location of proposed power poles were also created by GIS survey staff who georeferenced the PG&E plans for the line extensions and then digitized each point based on the plans along with other known features to account for the scale.

GIS Staff then determined the houses with and without power using local knowledge and took into account the distance from poles. This information is for planning purposes only and has not been verified with PG&E.

# Right-of-Way Challenges

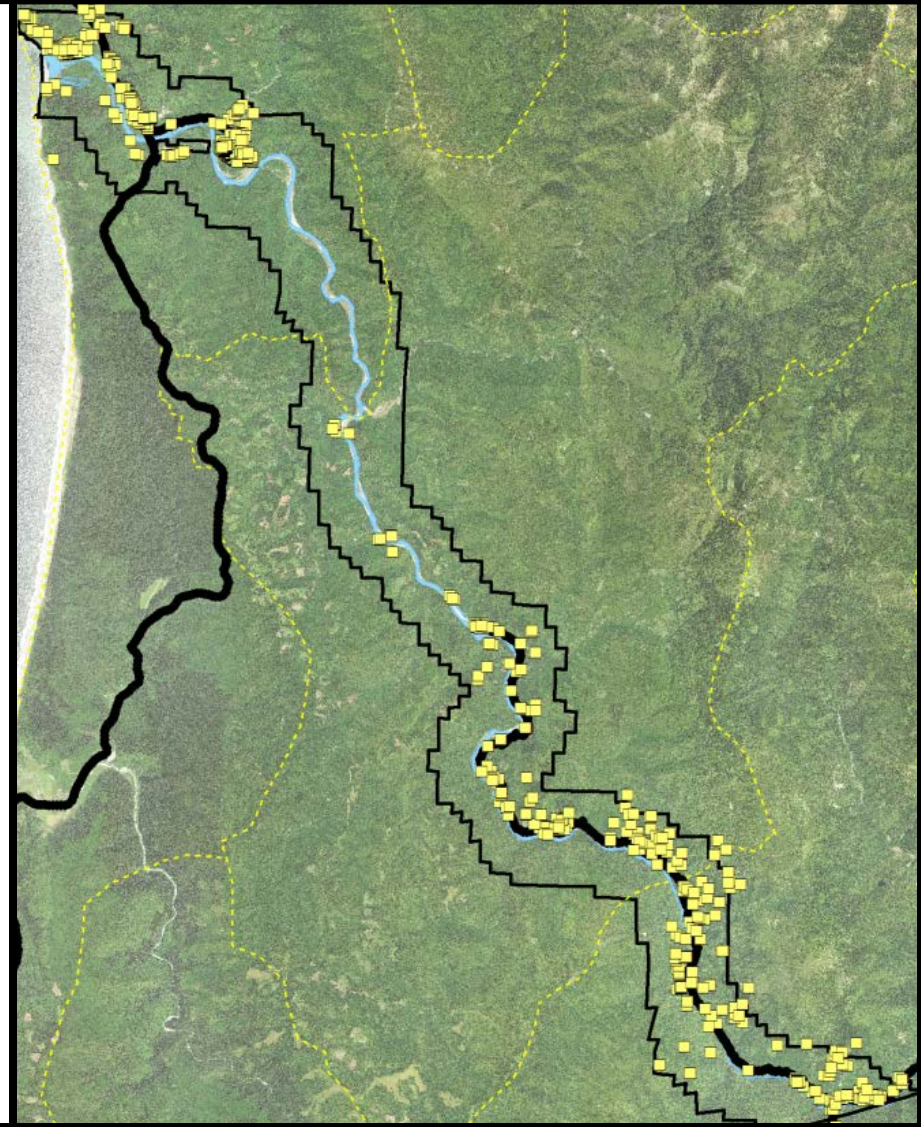
- Difficult obtaining ROW from absentee land owners
- Backlog of land probates
- Highly fractionated Indian trust allotments
- No Tribal ROW condemnation powers



# Energy Challenges



- Off grid renewable energy systems provide only part-time basic energy needs
- Yurok Reservation is served by two utility providers; PG&E and Pacific Power
- Yurok Reservation is the disconnect between the two utility providers



# Economic Challenges



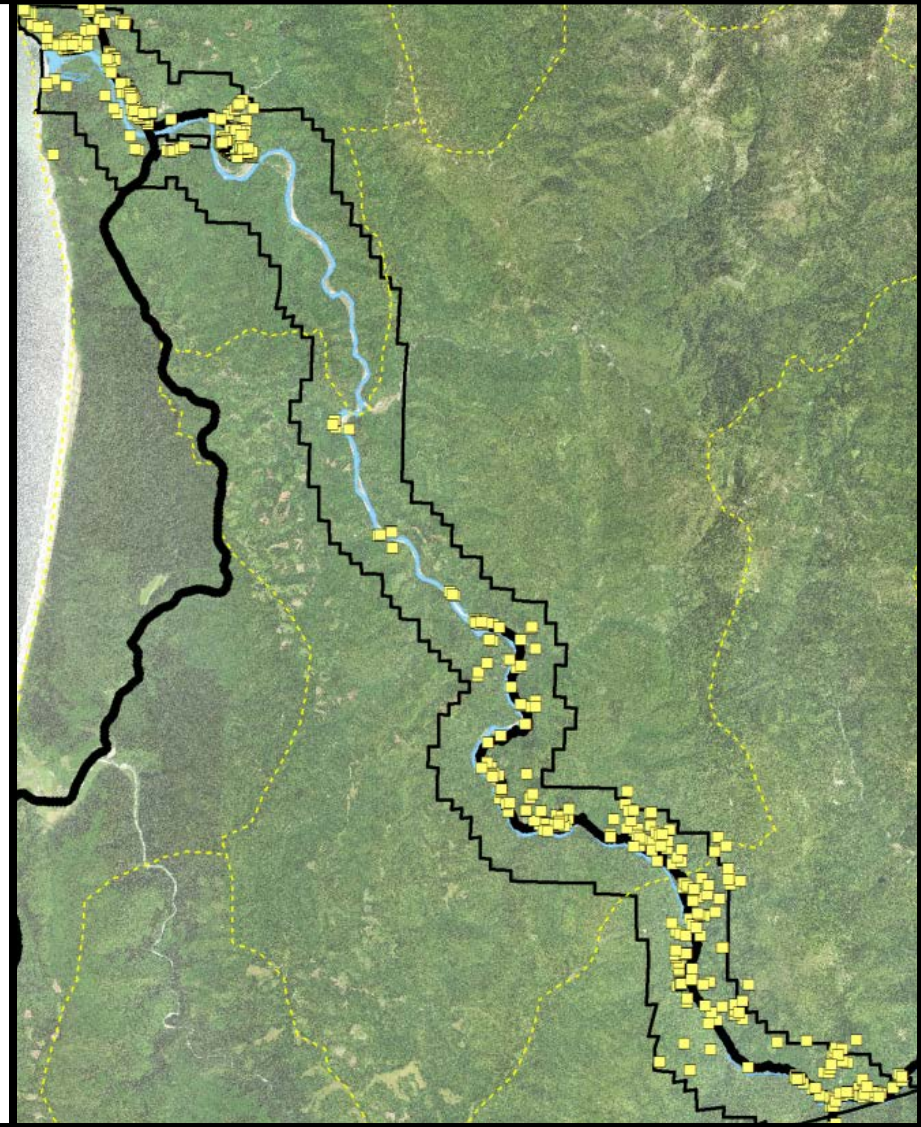
- Large percentage of reservation residents live in extreme poverty
- Energy grants require a high cost match (50%)
- Tribe has competing needs for discretionary funds and staff time
- Lack of sustainable funding for a full time Energy Planner





# Energy Challenges

- More than 50% of the Yurok Reservation does not have grid electricity or telephones
- Off grid residents pay a disproportionate share of annual income for gas generators, propane appliances, wood stoves, propane, kerosene and wood fuel



# Renewable Energy Challenges



- Lack of back-up grid power lines
- Seasonal & varying weather patterns (Hydro/Solar)
- Lack of land control/ownership (Hydro)
- Mountainous terrain, high density tree cover (Solar/Wind)
- Numerous cultural resources
- Salmon and steelhead habitat (Hydro)
- High debt-to-revenue ratio for capital loan payback

# Opportunities

- 
- Klamath River and its tributaries - **Hydro**
  - High temperatures – **Solar/Mini Grids**
  - Tribal and local forests – **Biomass**
  - Mountains, hills and coastline - **Wind**
  - Developing a **Yurok Strategic Energy Action Plan**

# Energy Vision



- Ensure reservation residents, tribal government and businesses have access to reliable, affordable and cost effective energy services
- Pursue a tribal energy program that promotes self-sufficiency, environmental sustainability, reliance on renewable resources, job creation and economic opportunity