

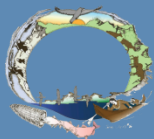
Energy for our Future

Standards, Goals and Energy Planning

Dave PM

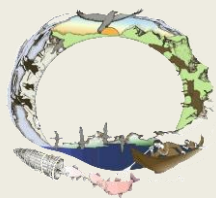
TCC Rural Energy Coordinator

Dave.pm@tananachiefs.org



Tanana
Chiefs
Conference

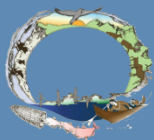
*"Stronger Together
for the Next 100 Years"*



Tanana Chiefs Conference

Tanana Chiefs Conference is a Tribal Consortium with 42 Members, representing 39 villages and 37 federally recognized tribes.

MISSION: “Tanana Chiefs Conference provides a unified voice in advancing sovereign tribal governments through the promotion of physical and mental wellness, education, socioeconomic development, and culture of the Interior Alaska Native people.”



Tanana
Chiefs
Conference

*“Stronger Together
for the Next 100 Years”*

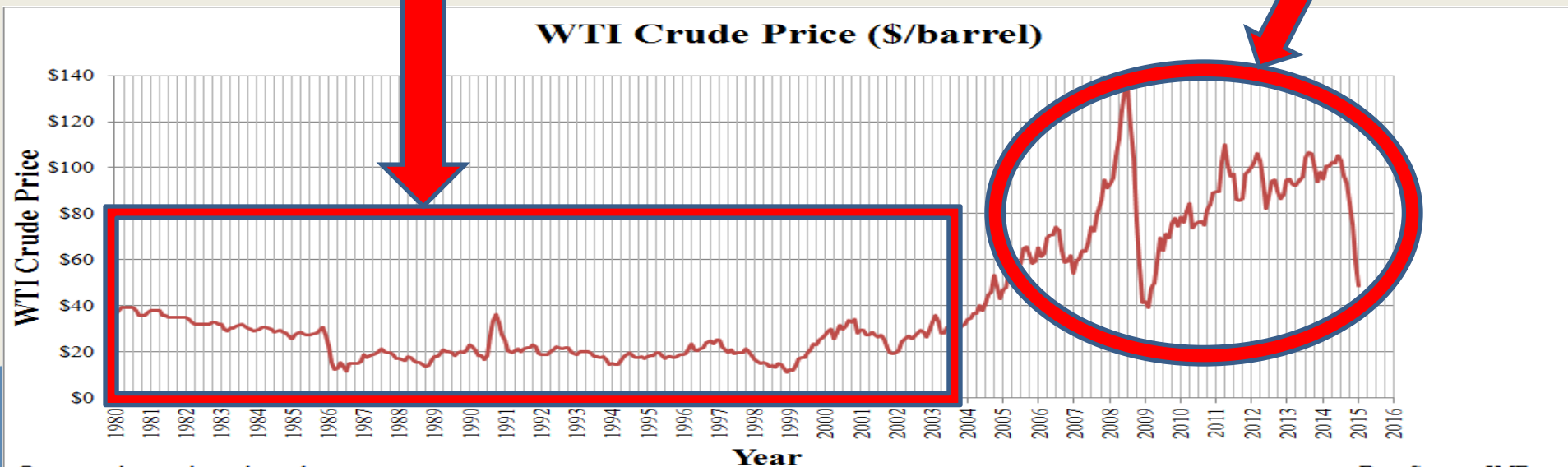
What is the main issue with the price of energy in our villages?

We designed everything around this:



When Prices were here

And we pay for them here



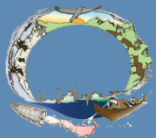
So what can we do?

“We’re not visionaries, we can’t see into the future, all we can do is look at the past and try to make predictions about the future”

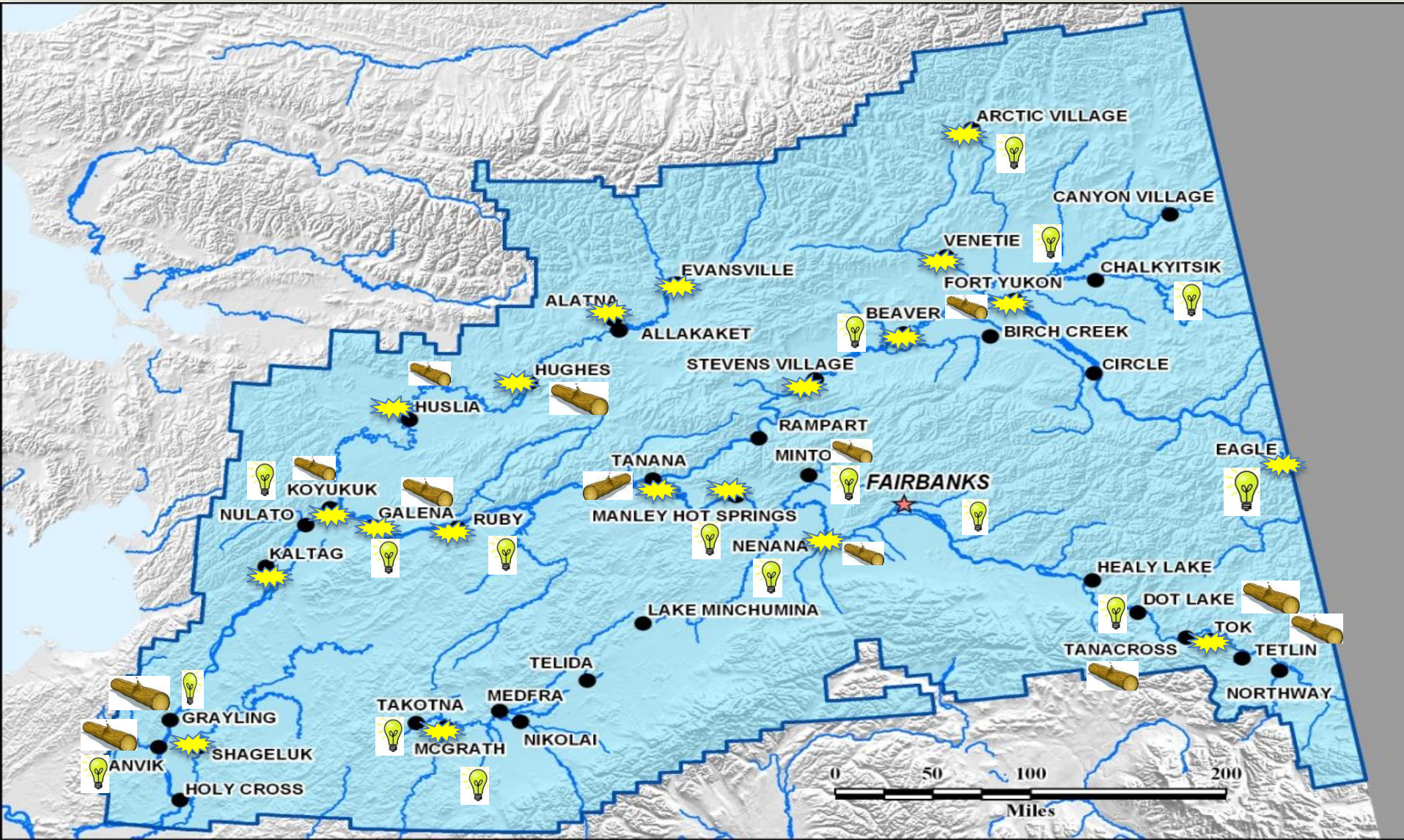
...So how can we make progress looking into the future?

Regional Energy Planning

- TCC is under Contract with the Alaska Energy Authority (AEA) for Interior Energy Plan Phase 2
- Energy Stakeholders:
 - Tribes
 - School Districts
 - City Governments
 - Utilities
 - Corporations
- There is no “one-size-fits-all” approach

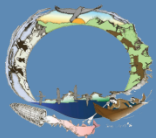


Energy Map

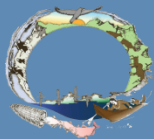
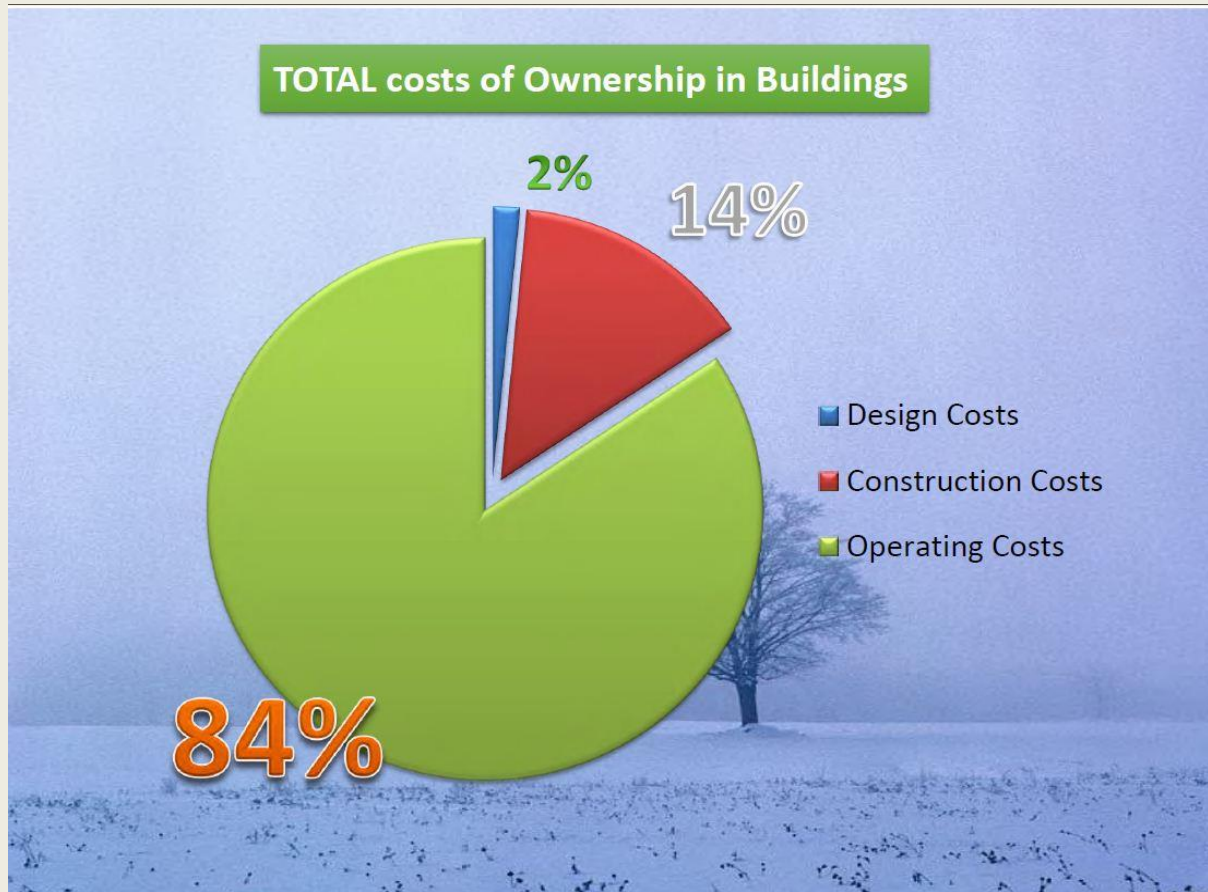


Building Standards

- TCC Regional Building Standard Resolution
 - R 100 Walls
 - R 50 Floors
 - R 70 walls
- Additional Items:
 - ECM circulating pumps
 - Utilization of waste heat wherever available
 - Utilization of Biomass wherever available
 - Integration of Solar PV on every new building for at least 25% of electricity production



Why are Building Standards Important?

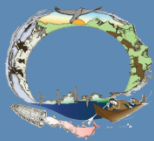


Tanana
Chiefs
Conference

*“Stronger Together
for the Next 100 Years”*

Solar on Clinics

- Manley Village – 6kW
- Ruby Clinic – 5kw
- Koyukuk Clinic – solar ready!



Tanana
Chiefs
Conference

*"Stronger Together
for the Next 100 Years"*

Ruby Clinic Solar

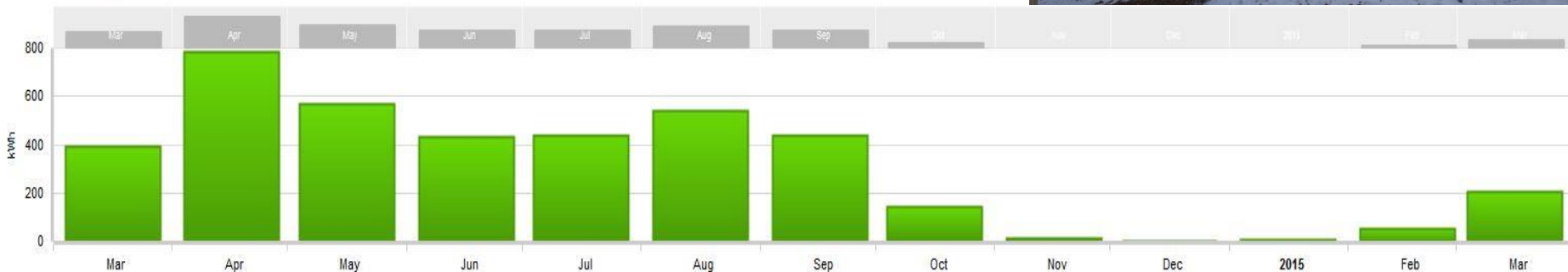
- Ruby Clinic Solar PV – 4,000 kWh's in 1st year that's enough energy to power an average village home for a full year

Ruby Health Clinic



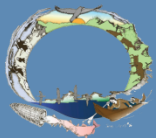
Energy

1D 7D 30D 12M WTD MTD YTD

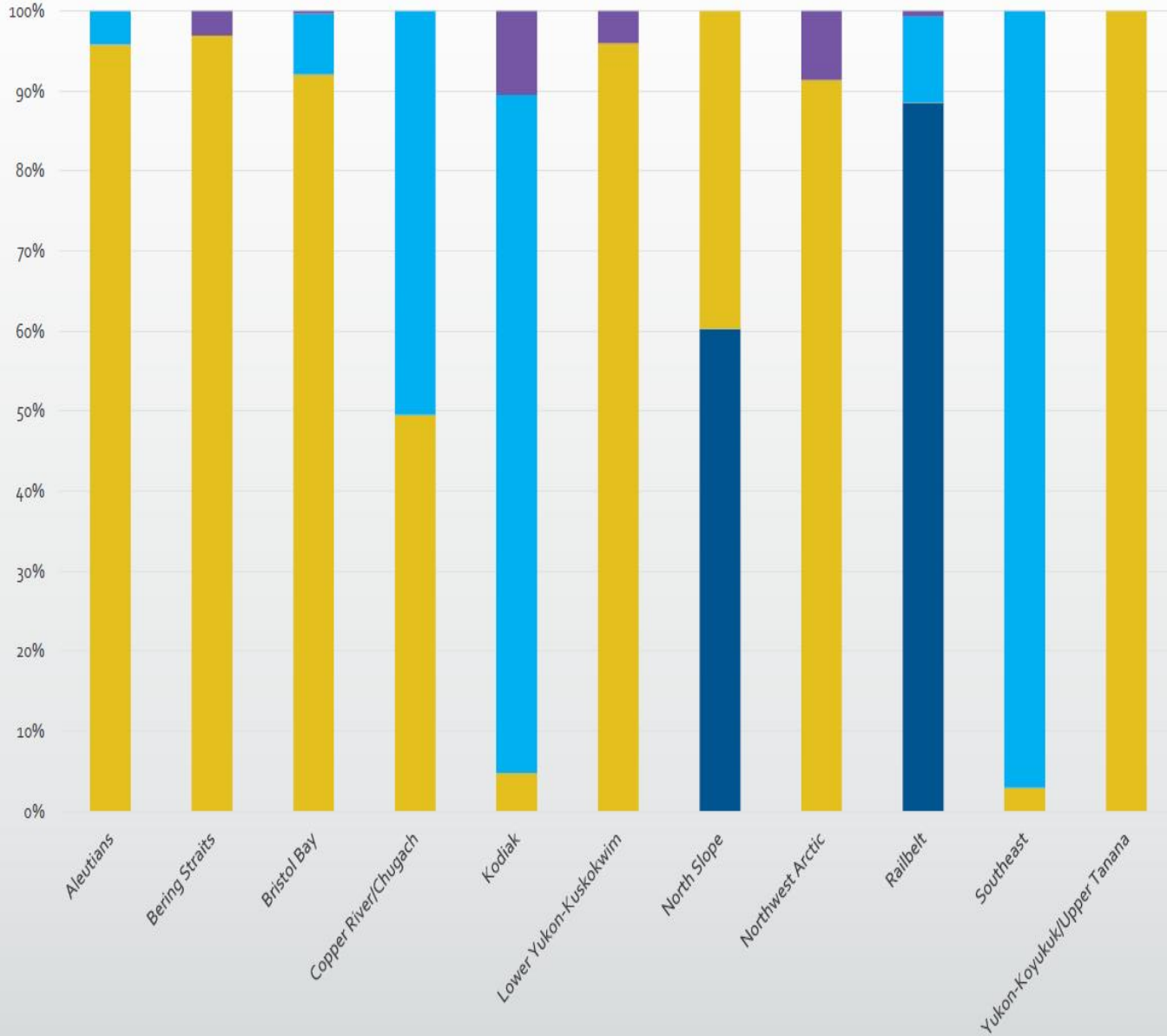


Utility Management and Electricity

- There is strength in a Consortia
- AVEC communities – avg electric cost after PCE: \$.21/kWh
- Avg cost in stand-alone community with population under 200 : \$.35/kWh



Percent of Regional Electric Generation by Source (2012)



What if your retirement account looked like this?

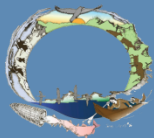
2012, Alaska Energy Statistics.

■ Natural Gas ■ Diesel ■ Hydro ■ Wind



Hughes Renewable Portfolio Standard

- 50% renewables by 2025 or reduction in Diesel use by 50% over 2010 consumption in the powerplant
- At the very least our goal is diversity

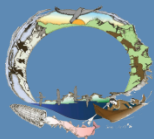


Tanana
Chiefs
Conference

*"Stronger Together
for the Next 100 Years"*

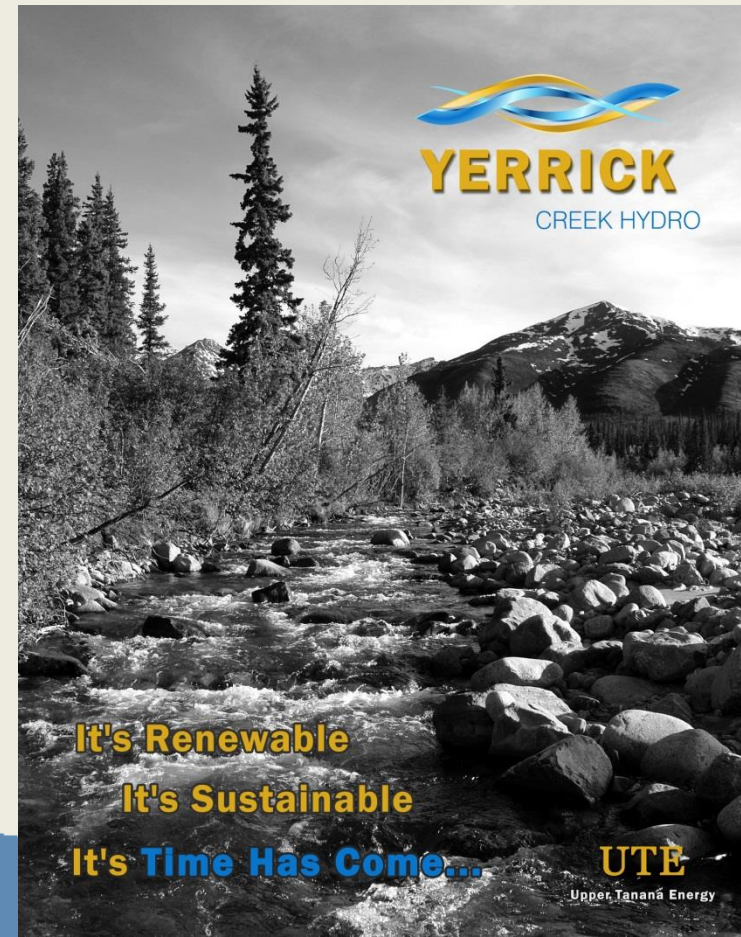
Yerrick Creek – Joint Venture

- Joint Partnership Between Tanacross Inc and AP&T
- 50 yr lifecycle, 1.5 MW
- Could offset 375,000 gallons of diesel per year



Tanana
Chiefs
Conference

*“Stronger Together
for the Next 100 Years”*



Looking into The Future...

(Traditional Athabaskan Solar Array?)

