

Tanana
Chiefs
Conference

BEAD Program: Opportunities & Challenges in Rural Alaska

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Tanana Chiefs Conference

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TCC's Broadband Mission

Tanana Chiefs Conference serves 42 rural Interior Alaska villages — 30 with clinics, 32 with schools — across an area the size of Texas.

Our mission: Provide high-speed internet in our rural communities at the same price available in urban communities, build tribal capacity and ownership of broadband assets, and create local jobs that keep economic benefits in our villages.

\$78M+

Active Broadband
Grant Funding

42

Rural Villages
Served by TCC

10

Active Grant
Programs

1

Broadband
Program Manager

Eagle Village — COMPLETE: 30 homes connected with fiber-to-the-home (Nov 2025). Tribal-owned. Tribal-operated.

What TCC Proposed Under BEAD

App 1: Yukon River Communities

\$91.4M | 1,008 BSLs | \$90,654/BSL

Ruby, Galena, Nulato, Koyukuk, Kaltag
XGS-PON fiber backbone (1–10 Gbps)

This would have connected TCC's two Yukon corridor ReConnect projects into a single continuous terrestrial fiber backbone — a first for Interior Alaska.

App 2: Ruby–Takotna Corridor

\$32.1M | 379 BSLs | \$84,720/BSL

McGrath, Nikolai, Takotna

The State Broadband Office identified additional unserved communities south of Ruby, and TCC submitted a second proposal to extend fiber to these villages.

What Happened: The BEAD Selection Process

June 2025: "Benefit of the Bargain" policy eliminates fiber-first preference; lowest upfront cost wins. TCC believes fiber is the right investment — more on that ahead.

Jan 9, 2026: ABO rejects TCC's proposals for excessive cost. Requests Best & Final Offer.

Jan 20, 2026: TCC submits BAFO — reduced communities, dropped Ruby-to-Takotna corridor, explored satellite backhaul via Pacific Dataport. Got from \$90,654 down to **\$49,999/BSL** — 682 locations for \$34.1M.

Jan 30, 2026: ABO rejects BAFO — "not the lowest price offer." Non-appealable.

Communities awarded to another provider at \$48.8M for 1,008 BSLs.

What Was Left on the Table

TCC's original BEAD proposals vs. what was ultimately selected for these communities

	TCC's Fiber Vision	What BEAD Selected
BEAD Investment	~\$123M (two awards)	\$48.8M (one award)
Locations Served	1,387 BSLs	1,008 BSLs
Communities	Ruby, Galena, Nulato, Koyukuk, Kaltag + McGrath, Nikolai, Takotna	Yukon River corridor communities only
Technology	XGS-PON fiber (1–10 Gbps capable)	100/20 Mbps (BEAD minimum)
Middle Mile	All-fiber terrestrial backbone across both corridors	265 mi fiber for 400+ river miles
Infrastructure Life	25–50+ years (fiber cable)	Fiber: 25+ yrs Microwave equip: 7–10
Upgrade Path	25G/50G PON over same cable	Capacity limited by microwave links
Ownership	Tribal-owned asset — long-term local control, jobs, and revenue	External provider — subscription/lease model, economic leakage
Workforce	Paid on-the-job training committed in grant agreements	No local workforce development required

**This comparison is not a criticism of other providers. It illustrates how TCC's mission — permanent assets, local jobs, and tribal self-determination — shaped our proposals.*

Why Fiber Is the Only Reliable Option

Alaska's conditions make the case for permanent infrastructure

The Reality of Non-Fiber in Rural Alaska

Microwave & satellite links depend on:

- Remote generators needing regular refueling
- Tower access — often by helicopter only
- Electronics that fail in extreme cold
- Weather windows for maintenance

Real Example: A TCC village clinic lost internet for weeks when a microwave link went down — no one could reach the site to refuel and repair it. Telemedicine and emergency communications were offline.

Fiber Is Different

- No remote power required — passive infrastructure
- No weather sensitivity — immune to rain fade, ice loading, and atmospheric conditions
- No equipment replacement cycle (25–50+ yr life)
- No shared bandwidth degradation
- Capacity 10–100x greater than microwave

Once fiber is in the ground, it works.

No helicopters. No generators. No replacement.

The Lifecycle Cost Question

GCI spends ~\$1.5M/year refueling Alaska microwave towers by helicopter. Industry O&M for microwave runs 10–15% of capital/year. Equipment replacement every 7–10 years adds another capital cycle.

Over 20 years, higher-O&M technologies can cost the same or more than fiber — while delivering far less capacity.

The Subsidy Reality

None of these projects work without ongoing federal support. The question is how much.

What TCC Clinics Pay Today

\$28,000–\$75,000/month

per clinic for satellite/microwave internet

30 TCC clinics funded through USAC Rural Health Care program. These costs continue indefinitely.

BEAD Covers Construction Only

Every BEAD project in rural Alaska — fiber, microwave, or satellite — requires ongoing federal subsidies to remain operational.

USF High Cost, E-Rate, Rural Health Care — these annual USAC programs keep the lights on after BEAD construction is complete.

Lower O&M = Lower Ongoing Subsidy Dependence

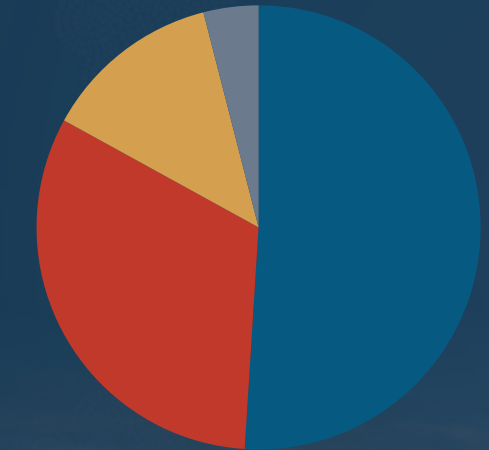
Fiber networks have the lowest annual operating cost of any broadband technology.

No tower fuel. No maintenance helicopters. No equipment replacement every 7–10 years. Every dollar saved in annual operating costs is a dollar less in federal subsidies needed.

When we choose higher-O&M technologies to save on upfront construction, we trade a one-time federal investment for an indefinite annual federal obligation.

Alaska's BEAD Program: The Big Picture

BEAD Technology Mix (by locations)



■ Fiber (51%) ■ LEO Satellite (32%)
■ Fixed Wireless (13%) ■ Hybrid (4%)

\$629M

Total BEAD Award

15 subgrantees, 29 projects

46,192

Locations Served

homes and small businesses

\$13,600

Avg. Cost/Location

statewide average

That brings us to the broader BEAD question—how do we ensure this one-time federal investment is building durable, sustainable infrastructure that fulfills BEAD's goal of long-term, reliable broadband access for rural communities?

TCC Is Building for Alaska's Future

BEAD was one piece of a larger vision. TCC's fiber backbone is moving forward.

ReConnect 3

\$30.3M

Fiber backbone: Dalton Highway to Hughes via Evansville, Allakaket, Alatna. Construction begins 2027.

ReConnect 4

\$35.0M

Fiber to Circle, Chalkyitsik, and Venetie. Design phase underway.

TBCP 1 & 2

\$15.5M

Fiber-to-home: Eagle (complete), Nenana, Northway, Tanacross, Dot Lake + 5 more communities.

RC3 + RC5

NEW

USDA supports linking RC3 and RC5 — a continuous terrestrial fiber backbone from Kotzebue to the Haul Road.

BEAD could have extended this backbone to the Yukon River communities — and south to McGrath. That opportunity to connect these corridors was missed.

Recommendations

1

Evaluate Total Cost of Ownership

Funding decisions should weigh 20-year lifecycle costs — O&M, equipment replacement, and ongoing subsidies — not just upfront construction. Fiber delivers the lowest long-term cost per Mbps.

2

Prioritize Tribal Ownership & Workforce

BEAD should advance tribal self-determination — local ownership of infrastructure, local jobs, and local revenue. TCC's proposals included paid workforce training; the selected approach keeps communities dependent on outside providers.

3

Reform Permitting & Scoring Criteria

18+ months of permitting inflates fiber costs. Scoring should weight long-term value, tribal consultation, and infrastructure lifespan — not just lowest upfront price per location.

4

Plan Now for Replacement Costs

Nearly half of BEAD locations received non-fiber technology with 7–15 year equipment life. Alaska needs a funding plan for replacements before those costs arrive.

Building for Alaska's Future

*We're not here over one grant application.
The question is whether federal broadband dollars
are actually building lasting, locally owned
infrastructure in Alaska Native communities.*

Broadband is infrastructure. Like roads and power lines,
it should be built to last — and built to grow.

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