



# Yukon Kuskokwim

## Comprehensive Economic Development Strategy

December 13, 2023

**Energy Working Group Meeting**

# Welcome



# Introductions *(invite list below)*

Alaska Conservation Foundation	Donlin Gold
Alaska Energy Authority	Middle Kuskokwim Electric Cooperative
Alaska Native Science and Engineering Program	Native Village of Kalskag
Alaska Native Tribal Health Consortium	Nuvista Light and Electric Cooperative
Arctic Infrastructure Development Center	Renewable Energy Alaska Project
Alaska Village Electric Cooperative	The Kuskokwim Corporation
Association of Village Council Presidents	University of Alaska Fairbanks
Calista	U.S. Department of Energy, Indian Energy
Coastal Villages Region Fund	Yukon Delta Fisheries Development Association
Denali Commission	

**Please  
write your  
name and  
affiliation  
into the  
chat.**

# Objectives

- Introduce the Purpose and Process of the YK CEDS
- Reminder of the 2020/2021 YK CEDS Energy Strategy and Actions
- Share data and what we've learned
- Discuss solutions to the energy needs of the YK region and priority topics for collaboration

# Land Acknowledgement



# General Meeting Guidelines

- Be clear and specific.
- Think creatively and strategically.
- Please use your mute button when not talking.
- Repeat your name every time you speak, if we have folks joining over the phone.

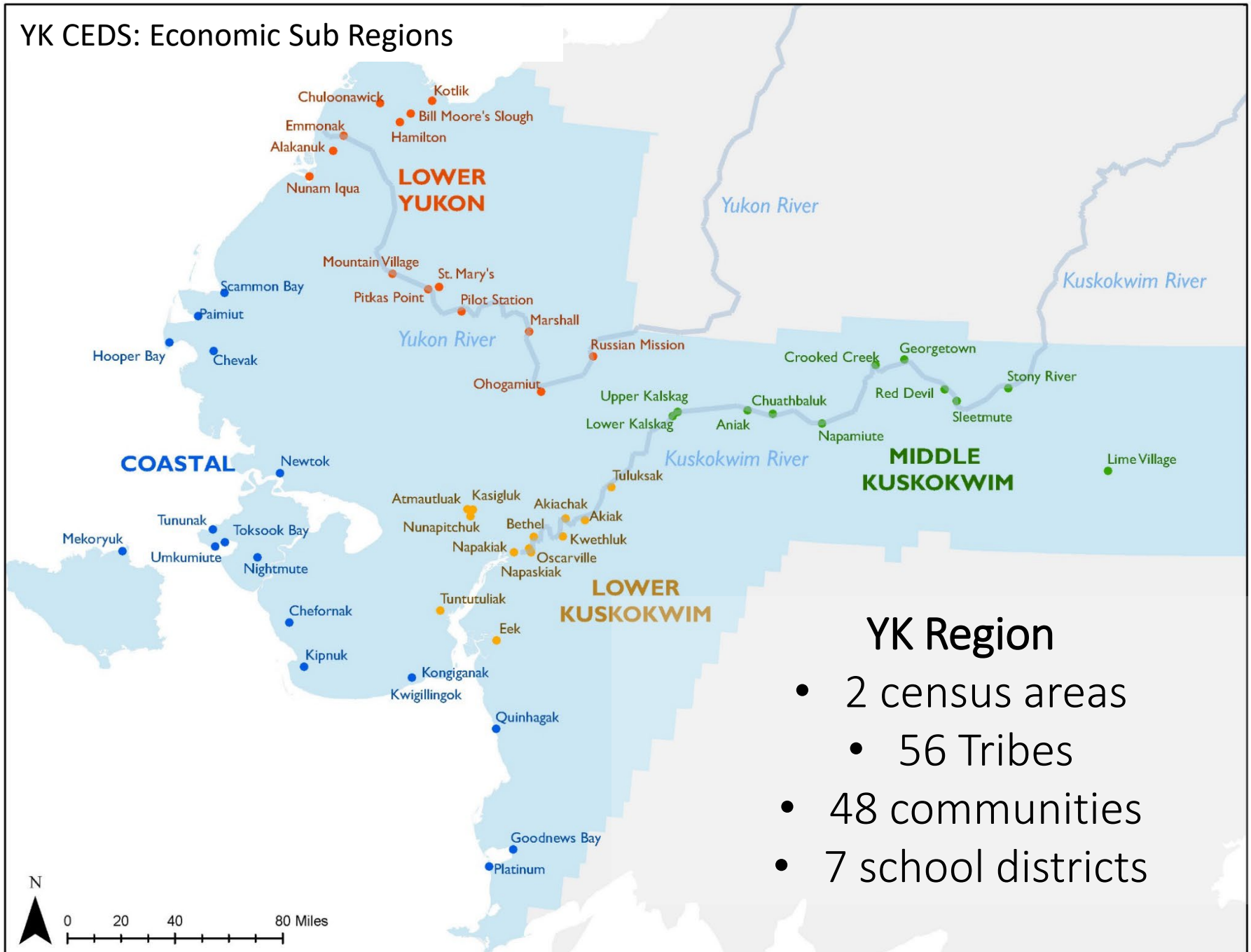


**We'd love to see you!** We are hoping for this to be an interactive meeting. Please turn your video on if your bandwidth allows.

# Review Purpose and Process of YK CEDS



## YK CEDS: Economic Sub Regions



### YK Region

- 2 census areas
  - 56 Tribes
- 48 communities
- 7 school districts



# What is a CEDS?

*Comprehensive Economic Development Strategy*

A document that identifies ways to

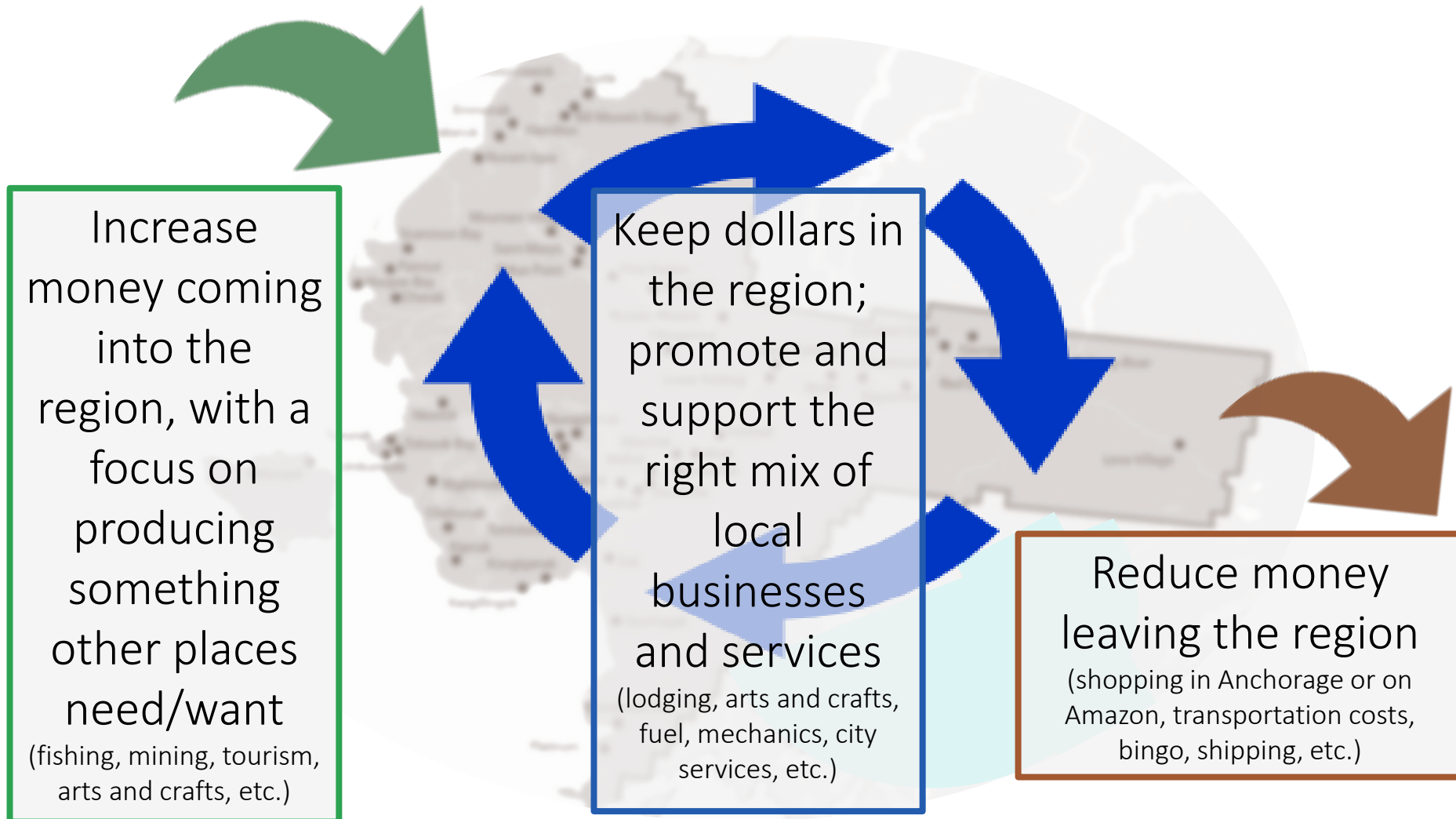
**support businesses**

**create more jobs**

**improve quality of life and**

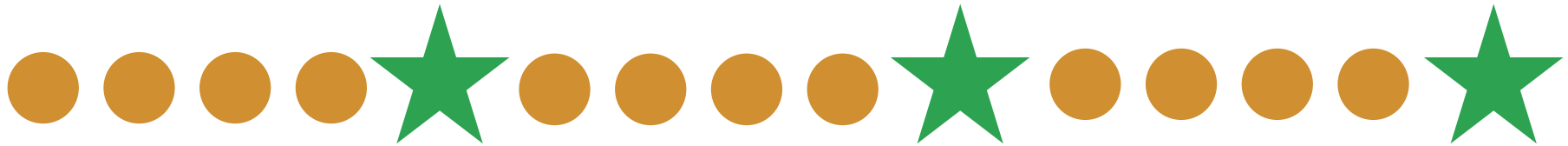
**increase resilience to  
changes and threats**

# How do we build a strong regional economy?



# Five-Year Update

CEDS must go through a robust update every five years, with shorter, less intensive updates annually. The five-year update was last completed in 2018.



- This current process is a 5-Year Update – 2024 – 2029 CEDS
- Process and recommendations are shared by communities, partners in the region

# Who is leading this process?

YK Communities, Tribes,  
Residents, Partners

YK CEDS Committee

## YK CEDS Working Groups

Housing/Water & Sewer Infrastructure | Food Security |  
Communications | Education and Workforce Development |  
Transportation | Business Development & Entrepreneurship | Energy

*Funded by  
the  
Association  
of Village  
Council  
Presidents  
(AVCP)*

# YK CEDS Working Group Roles

- Provide detailed guidance around priority needs and strategies for specific topics
- Collaborate to identify solutions
- Work together to track progress

# Schedule and Process

## Summer and Fall 2023

- Kickoff process
- Conduct interviews
- Launch community assessment tool

## Fall 2023 /Winter 2023-2024

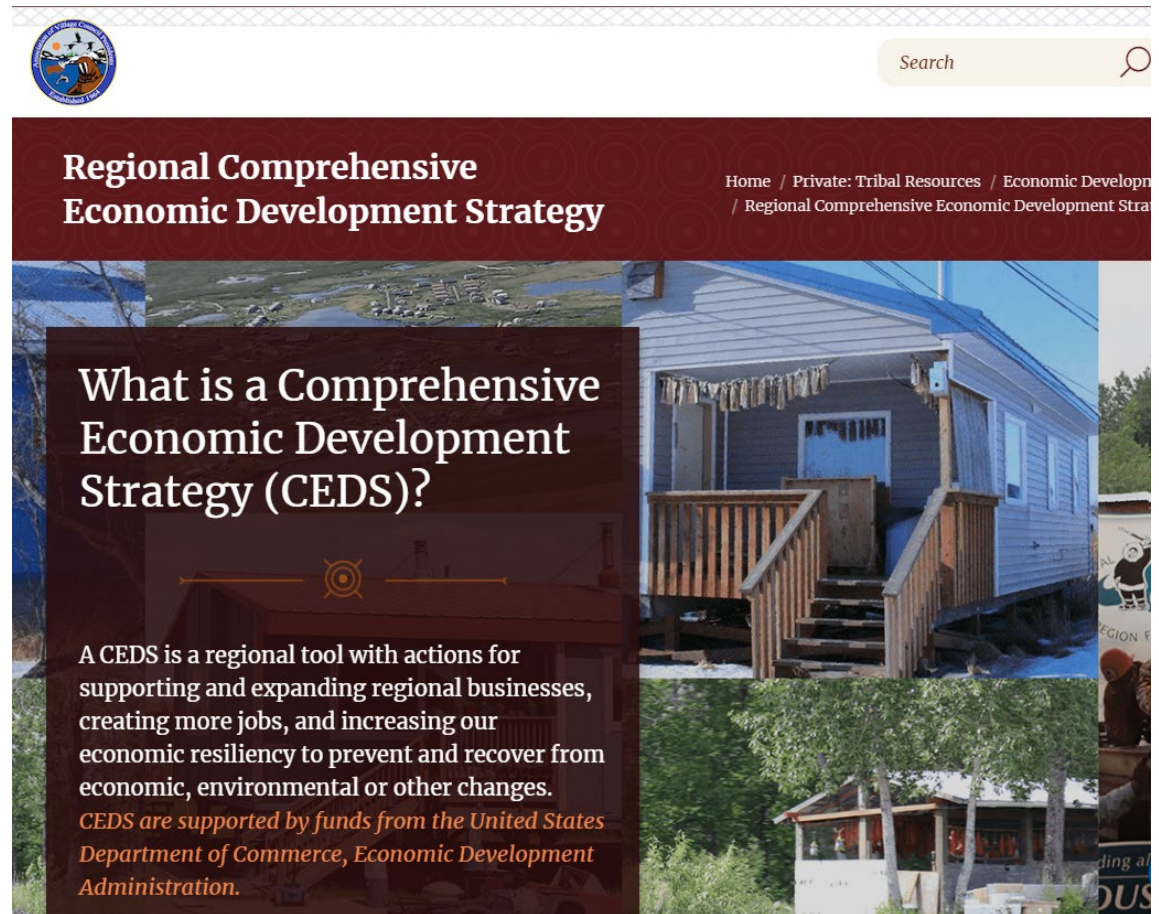
- Collect economic, population data
- Convene working groups
- Host YK Work Session: February 6-8, 2024

## Spring 2024

- Develop draft and final YK CEDS Five-Year Update

# Learn More about the CEDS and Past YK Work Sessions




*Review past YK CEDS updates and previous YK work session summaries on the AVCP website:*



<https://tinyurl.com/ykceds>

# Community Assessment Tool

**Purpose:** to gather essential information and community priorities for all YK communities.

TOPIC  IMPORTANT: Please complete Questions #1, 2, and 3 for each topic.	1. What is your top community priority or project for this topic? <i>This should be the project you want to make progress on over the next year.</i>	2. What are you doing currently or what or steps have you taken to address that priority project?	3. What is the biggest barrier to making progress on your top priority project?
<b>A. Education and Jobs</b>  Things like schools, training, job availability, and other similar issues.			
<b>B. Energy</b>  This topic may include power or fuel costs, renewable energy, fuel tank farms and other energy-related issues.			
<b>C. Food Security</b>  This topic may include grocery costs, food			



# Review and Discuss Past YK CEDS Energy Recommendations



# Priority Strategy *from 2021 Update*

## Energy

**Strategy 6: Build renewable energy infrastructure and address barriers to building more renewable energy infrastructure in the YK Delta.**

6-A. Implement **energy action plans** for TKC communities.

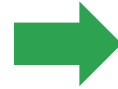
6-B. Collect energy audits that have been completed but not actioned. If possible, **bundle projects for implementation.**

6-C. Establish a **Regional Utility Facility Support Collaborative** to advocate for rural utilities. Create an **inventory of existing/needed feasibility studies** and bundle implementation of related projects.

6-D. **Construct a gas line** to deliver natural gas to the region, providing an alternative source for energy and heat generation.

# Priority Strategy *from 2021 Update*

## 6-A. Implement energy action plans for TKC communities.



6-B. Collect energy audits that have been completed but not actioned. If possible, bundle projects for implementation.

6-C. Establish a Regional Utility Facility Support Collaborative to advocate for rural utilities. Create an inventory of existing/needed feasibility studies and bundle implementation of related projects.

6-D. Construct a gas line to deliver natural gas to the region, providing an alternative source for energy and heat generation.

## Update

- Action plans completed in 2021; also a regional plan.
- TKC changed out 10,000 lightbulbs in the region and submitting grants for two test projects (wind in Kalskag, hydro in Sleetmute or Chuathbaluk).
- TKC is filling in data gaps for modeling for renewable potential.
- TKC is prioritizing energy efficient housing construction.

# Priority Strategy *from 2021 Update*

6-A. Implement energy action plans for TKC communities.

**6-B. Collect energy audits that have been completed but not actioned. If possible, bundle projects for implementation.**



6-C. Establish a Regional Utility Facility Support Collaborative to advocate for rural utilities. Create an inventory of existing/needed feasibility studies and bundle implementation of related projects.

6-D. Construct a gas line to deliver natural gas to the region, providing an alternative source for energy and heat generation.

## Update

- Nuvista and AVEC took the database of audits from ANTHC and updated based on outreach to communities, returned to ANTHC.
- There is no further work here – it can come off the list.

# Priority Strategy *from 2021 Update*

6-A. Implement energy action plans for TKC communities.

6-B. Collect energy audits that have been completed but not actioned. If possible, bundle projects for implementation.

**6-C. Establish a Regional Utility Facility Support Collaborative to advocate for rural utilities. Create an inventory of existing/needed feasibility studies and bundle implementation of related projects.**



6-D. Construct a gas line to deliver natural gas to the region, providing an alternative source for energy and heat generation.

## Update

- Recommend splitting into two distinct actions.
- Nuvista has determined a regional collaborative (part 1 of the action) is likely not financially sustainable.

# Priority Strategy *from 2021 Update*

6-A. Implement energy action plans for TKC communities.

6-B. Collect energy audits that have been completed but not actioned. If possible, bundle projects for implementation.

6-C. Establish a Regional Utility Facility Support Collaborative to advocate for rural utilities. Create an inventory of existing/needed feasibility studies and bundle implementation of related projects.

**6-D. Construct a gas line to deliver natural gas to the region, providing an alternative source for energy and heat generation.**



## Update

- No major updates; this is a longer-term project that would likely move forward if the Donlin Mine moves forward.

# What We Have Learned So Far



# Outstanding Energy Challenges

- Lack of data in the region regarding hydro, river, and solar potential.
- Power systems in existing homes are outdated. \*
- High costs for fuel, transportation, equipment, contractors.\*
- Number of households reliant on assistance programs to pay for heat and power, especially in winter months.\*
- Limited community capacity to pursue projects.\*
- Limited capacity and workforce for ongoing energy-related maintenance and operations.\*
- \* = **emerging as theme in Community Assessment Tool**



# Project Updates – 1 of 4



Alaska Energy Authority (AEA) Renewable Energy Fund program: Projects funded for in FY24 budget (3 of 18 projects in YK)

- Chefnak Battery Installation, Integration, and Commissioning (Naterkaq Light Plant)
- Kalskag Wind Feasibility and Conceptual Design (Alaska Village Electric Cooperative)
- Kipnuk Battery Installation, Integration, and Commissioning (Kipnuk Light Plant)



# Project Updates – 2 of 4



AEA awarded \$1.6 million from the Energy Efficiency and Conservation Block Grant Program to establish

**the Renewable Energy Village Energy Efficiency Program (RE-VEEP),**

and will match with \$1.4 million, making \$3 million available for carbon-reduction projects across the state.

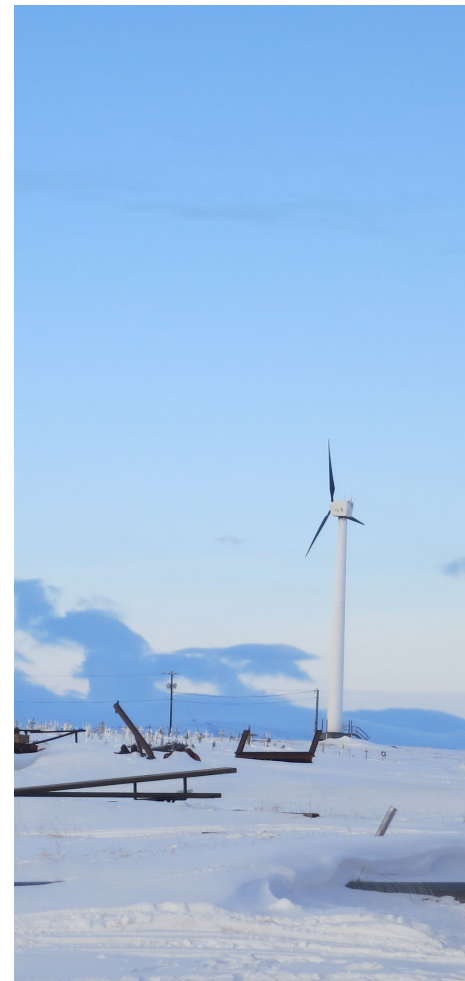
*(RE-VEEP will be open to local governments ineligible for direct formula grant funding under the EECBG Program.)*

# Project Updates – 3 of 4



ALASKA NATIVE  
TRIBAL HEALTH  
CONSORTIUM

- ANTHC's rural energy program is working on putting in 1MW Wind turbines in Hooper Bay, Chevak, Toksook Bay and potentially also Emmonak.
- Feasibility studies with 5% designs have been completed and now searching for funding.
- Also starting the permitting process for Hooper Bay, Chevak and Toksook through the FAA and Fish and Game so they are project-ready for the right grant.



# Project Updates – 4 of 4



TKC is prioritizing energy efficient home construction with locally sourced wood.

- In addition to energy-related benefits, this is a major workforce development and housing opportunity.
- TKC received a 2-year grant to build a test home, using construction methods from Canada (status unknown.)
- Incorporates indigenous knowledge into the design.



# Opportunity: Arctic Energy Ambassadors

- Program will provide support for 12 selected practitioners from Alaska regions to improve energy security across Alaska.
- Will develop collaborative energy leadership, in alignment with the U.S. Department of Energy's Arctic Strategy and the clean energy transition.
- **Status: Application period closed November 22; final participant selection by the beginning of January 2024.**



Learn more at  
[https://www.energy.gov/  
arctic/arctic-energy-  
ambassadors](https://www.energy.gov/arctic/arctic-energy-ambassadors)

*The Arctic Energy Ambassadors program is led by the [Arctic Energy Office](#), in partnership with the [Denali Commission](#), [Alaska Municipal League](#), and with additional funding from the Office of Energy Efficiency and Renewable Energy and the Office of State and Community Energy Programs.*

# Data Presentation



NUVISTA

Presented by Sean Glasheen  
Executive Director

# Progress Is Happening!

## Yukon-Kuskokwim Communities with Renewable Energy Systems in Place

<u>Community</u>	<u>Type of System</u>	<u>Entity</u>
Pitkas Point/St. Mary's	Wind System	AVEC
Hooper Bay	Wind System	AVEC
Toksook Bay	Wind System	AVEC
Kwigillingok	Wind System	Chaninik Wind Group
Kongiganak	Wind System	Chaninik Wind Group
Kipnuk	Wind System	Chaninik Wind Group
Chefornak	Wind System	Chaninik Wind Group
Tuntutuliak	Wind System	Chaninik Wind Group
Kwethluk	Wind/Battery	Kwethluk Inc
Bethel	Wind System	AVEC
Emmonak	Wind System	AVEC
Akiak	Solar	
Atmautluak	Wind System	ATMAU Utilities

*Source: Nuvista*

# Funding – Some Examples

## Alaska Energy Authority – Renewable Energy Fund

- Round 16 application period closed in August. With the passage of House Bill 62 in 2023, the sunset date was removed from Alaska Statute, extending the program in perpetuity.

## ANTHC – Rural Energy Program and Technical Assistance Request

- Request technical assistance in planning and implementing renewable energy and energy efficiency projects in community.

## Federal Infrastructure Law - Funding Overview for Clean Energy and Power

- This funding includes four major areas primarily through the Dept. of Energy:
  - Delivering clean power
  - Clean energy demonstrations
  - Energy efficiency and weatherization retrofits for homes and communities
  - Funding for clean energy manufacturing and workforce development



# Energy-Related Opportunities

- Community energy action plans complete – ready to implement.
- Increased federal funding.
- Advancements in technology.
- Aligning energy upgrades with housing plans.
- Growing interest in and funding for renewable energy.

# Priority Topics and Emerging Solutions



# Energy Security Task Force Report

*Hot off the presses: December 1, 2023*



Railbelt Transmission,  
Generation, and  
Storage



Coastal Generation,  
Distribution,  
and Storage



Rural Generation,  
Distribution,  
and Storage



State Energy  
Data



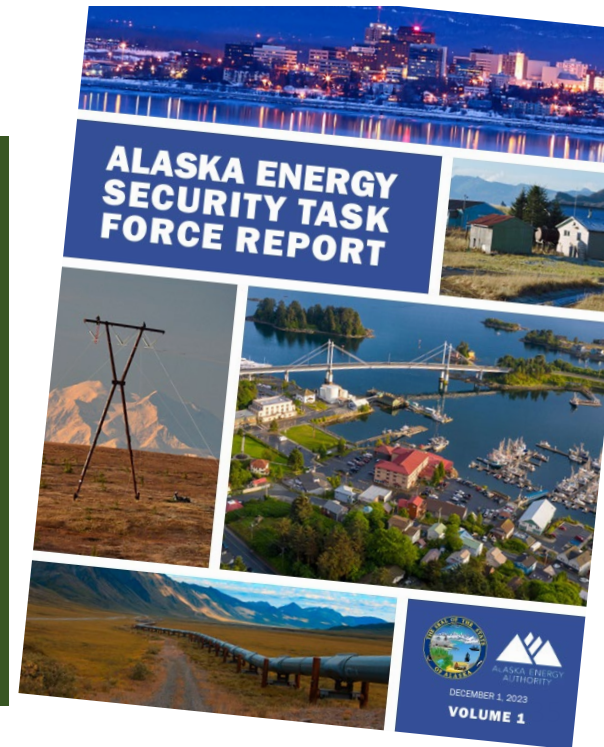
Incentives and  
Subsidies



Statutes and  
Regulations



- Increase Capital Availability
- Infrastructure Investment
- Lower Operational Costs
- Improve Economies of Scale
- Improve Data-Driven Decision Making



# Solutions Discussion

Potential areas of focus include:

- A. Research and Invest in Renewable Energy
- B. Improve Utility Operations, Reliability, and Data Collection
- C. Reduce Costs & Invest in Weatherization
- D. Increase Capacity of Local Energy Workforce

# Solutions Discussion

- A. Research and Invest in Renewable Energy
- B. Improve Utility Operations, Reliability, and Data Collection
- C. Reduce Costs & Invest in Weatherization
- D. Increase Capacity of Local Energy Workforce

## Guiding Questions

How can we leverage opportunities to find solutions to these challenges?

Where should we focus our attention? Where is collaboration most needed?

# Wrap Up



# Schedule and Process

## Summer and Fall 2023

- Kickoff process
- Conduct interviews
- Launch community assessment tool

## Fall 2023 /Winter 2023

- Collect economic, population data
- Convene working groups
- Host YK Work Session

## Spring 2024

- Develop draft and final YK CEDS Five-Year Update

# Next Steps

- Share notes from today
- Convene additional Working Groups (Food Security tomorrow afternoon!)
- Distribute the Community Assessment Tool
- Come together for the YK Work Session (February 6-8, 2024)



# Closing Comments & Questions

Ideas or questions? Contact us.

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