YK CEDS: August 2020 Work Session

Energy Working Group Breakout: Action Planning Results

Wednesday, August 12, 2020; 1pm – 3pm

Link to recording: Click here

Facilitator: Natalie Hanson, Nuvista Light and Electric Coop

Team Support: Heather Stewart, Agnew::Beck Consulting

Participants:

First Name	Last Name	Organization
Alba	Brice	Calista
Anny	Cochrane	Alaska Dept. of Labor + Workforce Development, Bethel Job Center
Audrey	Alstrom	Alaska Native Science + Engineering Program
Audrey	Leary	Association of Village Council Presidents (AVCP)
Bertha	Prince	Nuvista/CEMAI
Bessie Lea	Weston	Lower Kuskokwim School District
Bill	Stamm	Alaska Village Electric Cooperative
Bonnie	James	Yupiit School District
Brenda	Pacarro	Calista
Brian	Hirsch	Deerstone Consulting
Colleen	Laraux	Donlin Gold
Danielle	Stickman	Western Alaska Partnership
Deborah	Vo	Senator Lisa Murkowski's Office
Dustin	Madden	Alaska Native Tribal Health Consortium Rural Energy Program
Fatima	Ochante	Alaska Department of Environmental Conservation Village Safe Water Program
Heather	Stewart	Agnew::Beck Consulting
Jacqueline (Jackie)	Garcia	Calista
Jon	Lewis	Kwig Power Company
Kristi	Williams	Calista/CEMAI
Kristina	Woolston	Donlin Gold, External Affairs Manager
Leila	Johnson	Calista
Lynn	Polacca	Bureau Indian Affairs, Alaska Region
Mark	Masteller	University of Alaska Fairbanks, Bristol Bay Campus
(continued on next page)		

First Name	Last Name	Organization
Natalie	Hanson	Nuvista
Shelly	Wade	Agnew::Beck Consulting
Tom	Wolf	Denali Commission

Objective: Work as a team to develop a clear 1 to 2-year action plan for YK CEDS priority strategies and actions.

Agenda:

A. Welcome, Logistics, Roll Call, Breakout Purpose & Agenda Review

B. Strategy/Action Introduction & Knowledge Sharing

Q#1: What are we focusing on?	
CEDS Strategy #11:	• Expand energy infrastructure and increase the use of renewable energy.

CEDS Actions:	• Build renewable energy infrastructure.
	• Address barriers to building more renewable energy infrastructure in the YK Delta, e.g.,
	  o a lack of readiness for integrating renewable energy into the utility infrastructure, and
	  o access funding/project financing/meeting cost-share requirements (e.g., 50% match for Department of Energy Office of Indian Energy funding).
	• Possible solutions could involve
	  o identifying viable renewable energy projects in YK Delta communities,
	  o increasing community and/or utility readiness for renewable integration (e.g., through assessments, data collection, business/operational support), and
	  o establishing a regional or statewide mechanism for meeting cost-share requirements.

Q#2: Why is this topic important? What is happening now that we should consider, want to support and/or change?	
Renewable energy is important because: • It may help stabilize energy costs. The Power Cost Equalization (PCE) subsidy for residential electricity in YK communities may be decreased or discontinued at some point. PCE also does not cover small businesses, which face a larger cost burden than residents. • It may lower the cost of energy, which lowers the cost of living overall in YK communities. • It is a way to address climate change concerns. • Energy is connected to everything we do. We need affordable, local, secure, renewable energy systems in our communities.	

Other things to consider, support or change:

- **Efficiency First:** Energy efficiency is cost effective and makes renewable energy more feasible.
- **Right-sizing:** The size of a renewable energy project should match the needs of the community and ability to integrate with the community's existing infrastructure.
- **Integration with other infrastructure:** There are opportunities to integrate renewable energy with water-sewer and other community infrastructure.
- **Local geography matters:** Geography also needs to be considered for feasibility. Different areas are more or less feasible for different types of renewable energy. For example, biomass is less feasible in treeless coastal areas than forested upriver/interior communities.
- **Funding/project financing:** The Department of Energy (DOE) funding program(s) is(are) limited. What are other ways to finance this infrastructure?
    - Support the development of a Green Bank to fund Alaska projects.
- **Sustainability:** Grants are available for equipment or energy systems, but these must be maintained in the long term. Keep maintenance in mind when planning energy systems.
- **Energy education:** It's important for communities to understand how certain renewable energy systems may or may not meet their energy needs; e.g., the local wind patterns and strength must be measured to see if wind energy is viable. A mix of renewables may be needed to best serve a particular community.
    - Technical training for local personnel is needed; e.g., the Chaninik Wind Group built and now maintain their renewable energy system.
    - Project management training is also important; a village needs to understand the systems well enough to run the project from start to finish.
    - The University of Alaska Fairbanks (UAF) Bristol Bay Campus is currently developing a Project Management module for their Bristol Bay Technical program, which works with high school students. Bristol Bay has the only Sustainable Energy Program in the University of Alaska system. Mark Masteller has been taking with the UAF-Kuskokwim Campus about bringing similar programming to the YK region.
    - Information about AK Energy Smart courses for students and trainings for teachers: https://www.akenergysmart.org/
    - Education and understanding are needed in our region about the benefits of renewable energy so stakeholders have buy-in and advocate for renewable energy systems.
    - Financial and administrative training is also needed. The State of Alaska has Registered Apprenticeship programs that can be funded by the State.
    - The Rural Utility Business Advisor (RUBA) program conducted some assessments with an energy report card/checklist developed with the Denali Commission, which revealed the need for more financial training and utility administration; RUBA put out courses focused on that. Though it was a one-time effort, the Denali Commission provides funding for training programs and is working with Renewable Energy Alaska Project (REAP), Alaska Energy Authority (AEA), and Alaska Vocational Technical Center (AVTEC) to figure out the best training delivery model, e.g., regional training with administration and operators jointly. The Denali Commission is investing more in maintenance and improvement projects now through AEA (update controls) and Alaska Village Electric Cooperative (AVEC) (replacement) in bulk fuel facilities and power plants.

C. Action Planning

Q#3: To make measurable progress on this strategy/action, what tasks must happen over the next 1 to 2 years? Who will lead that task? Who will partner with the lead?	
Task	***Lead & Partners***
a. **Project Inventory:** Update the inventory of potential renewable energy projects in the YK region ("Community Energy Profiles" from 2016 YK Energy Plan) to give a baseline to work from.	**Lead:** Nuvista, CEMAI program **Partners:** Alaska Native Tribal Health Consortium (ANTHC) to contribute information for ANTHC projects (e.g., communities w/heat recovery system status, water treatment plant energy audits and need for retrofits); Village Safe Water (VSW) to contribute information for VSW projects.
b. **Action Plan Audits:** Gather audits done that have not been actioned; if possible, bundle those projects.	**Lead:** Nuvista, REAP. REAP has already explored this idea. **Partners:** ANTHC has energy audits for water treatment plants and community facilities all over the state. Alaska Housing Finance Corporation (AHFC) audits.
c. **Readiness Checklist:** Develop a self-assessment that allows a community or utility to rate itself on things like whether energy conservation measures are in place, energy audits have been done, preventative maintenance is being done, financials are in order, O&M training assessment (Are people paid well? Have they received quality training?), etc.	**Lead:** The Denali Commission already developed an energy report card/checklist (based on the RUBA water-sewer best management practices model) that is available.
d. **Project Vetting:** Create and update an inventory of existing and needed feasibility studies for renewable energy projects. Use this to seek funding for future feasibility studies. Feasibility includes: financial (is it cost effective?) and resource (is wind, water, etc. consistent enough?). Identify opportunities to "bundle" projects to lower the per-project costs and expand capacity for these projects. What are the complete energy needs of a community and how best can those be met?	**Lead:** Nuvista **Partners:** REAP (Chris McConnell has been doing this type of research on studies that have been done around the state.)

e. **Energy Literacy:** Provide education, training and workforce development (online and in-person classes).	**Lead:** UAF **Partners:** UAF works with AK Energy Smart (primary and secondary curriculum) to prepare students for UAF-level classes. REAP has three dedicated energy educators and can connect communities with culturally and energy-specific learning (Chris McConnell will send information).

Q#4: How will we measure our success? What data will tell us we're making a difference? A year or two from now, what SPECIFIC positive change do we want to make?

Indicator of Success/Positive Change	*Target*
Creating a meaningful target for this indicator requires baseline information that is not readily available. An input-output model may have to be done to estimate current energy-related jobs and set a meaningful target.	In # years, # jobs or internships are created or retained for regional residents in the energy sector (e.g., in studying, planning for, building or operating renewable energy infrastructure).
Creating a meaningful target for this indicator requires baseline information that is not readily available. An input-output model may have to be done to estimate current energy-related investment and set a meaningful target.	In # years, $# in private funding invested in YK energy projects (e.g., foundation grants awarded, investments in a utility or renewable energy development project).
Creating a meaningful target for this indicator requires baseline information from the UAF-Bristol Bay partners.	# of people who complete the Alaska Center for Energy and Power (ACEP) Rural Electric Utility Operation Training and Internship Program (as an education metric for utilities).
Creating a meaningful target for this indicator requires baseline information from the facilities directors at YK region school districts, who would know what the training needs are, who is getting them and who needs what.	In # years, # people receive facilities maintenance training.
Creating a meaningful target for this indicator requires baseline information from the tasks above.	In 2 years, # new renewable energy projects are in planning or development.
Creating a meaningful target for this indicator requires baseline information from the tasks above.	In 4 years, # new renewable energy projects in operation.

Creating a meaningful target for this indicator requires baseline information that was not readily available during discussion. Participants noted that at a regional scale, Donlin may be the major private energy-related business, and that small businesses development (e.g., diesel mechanic, trainer) will require more small business finance education.	In # years, # new local or regional energy-related businesses are operating in the YK region.

Q#5: What funding opportunities and/or other resources can support our action plan? *(see below for "Potential Funding Sources")*

- Renewable Energy Tax Credits/Investment Tax Credits.
- Support the development of a Green Bank for Alaska projects.

Added after the session:

Mark Masteller, Assistant Professor at the University of Alaska Fairbanks, Bristol Bay Campus shared the following opportunity: "Strengthening Community Colleges Training Grants Program" from the U.S. Department of Labor, due October 8, 2020. Learn more here.
From Mark: If you know of anyone in the group that will actually apply I'd like to let them know that our program is willing to be a partner on aspects dealing with secondary and early-college education/training/workforce development. So if someone decides to submit a proposal and want to talk please pass my info along to them. I think time is pretty short.
Contact Mark Masteller at mamasteller@alaska.edu, 907-414-0198

In addition, the UAF Bristol Bay Campus has the following resources available:
Energy Literacy

- We have an Occupational Endorsement (OE) in Sustainable Energy (12 credits) that can be delivered completely online, and we can also travel (given proper COVID conditions) to deliver face-to-face classes in communities and/or at the Bethel Campus. And we offer full tuition assistance to rural students enrolled in the program. The class I recommend for everyone, of every age, is Home Energy Basics (HEB), because it covers ways to save money on energy costs. It's the best in-community (or online) class to start with.
- We have been working with the Bristol Bay Career and Tech Ed (CTE) program (4 school districts) to offer an 8-week track in Sustainable Energy, and we could start discussing something similar in the Y-K area. (In BB we did not start with all 8 weeks; we started several years ago offering 2 1-credit classes during only one of their 8 weeks.) These are "dual credit" classes - the high school students get college credit and exposure to the world of Sustainable Energy.
- We have an established program where we support local high school teachers to deliver the content of our Home Energy Basics class within their own classroom, so they can deliver at the pace they feel appropriate. And HS students get college credit.
- We have an established relationship with Renewable Energy Alaska Project (REAP) to collaborate on education for energy efficiency and renewable energy, especially in K-12 programs.

- We collaborate with UAF-Alaska Center for Energy and Power on what I call the Rural Utility Program - exposing students to opportunities in electric utilities. This involves a Utility lecture series, a "Microgrid Boot Camp," and student internships in electric utilities. (While this has traditionally been geared toward engineering students, we are wanting to expand to include rural folks who may work in utilities but not be engineers.)
- We are planning to develop Project Management/Development and Energy Policy/Planning classes to add to our menu of program options.

Additional Training

- With proper resources we can host special hands-on training. Of course this usually takes a bit of lead time and coordination. An example is Solar PV installation training I hosted a few years back, and that we plan to host again in Dillingham as a "capstone" for our CTE track. My goal is to develop a group of Alaska-based trainers; ideally people in each region. That's a longer-term goal, but we're getting there thanks to collaborative work with groups like ANTHC.
- Another constant need is making homes more energy efficient (weatherization). Within our larger college (CRCD) we have Construction Trades classes, and in the past we have taken these on the road as well.

D. Summarize, Closing Comments & Adjourn

Q#6: (After summary of key tasks, leads & partners by facilitator) – What final comments, questions or concerns do we have as individuals/as a group?

- No comments.

Full Group Work Session Discussion Notes from Friday, August 14th

- No comments.

Other Potential Funding Sources – Research Conducted by Agnew::Beck Consulting Prior to Work Session

Opportunity Name	Description	Eligibility and Typical Release Date
U.S. Department of Agriculture, Utilities Programs, Assistance to High Energy Cost Communities	https://www.grants.gov/web/grants/view-opportunity.html?oppId=324819 Assists communities with extremely high energy costs. The grant funds may be used to acquire, construct, or improve energy generation, transmission, or distribution facilities serving communities where the average annual residential expenditure for home energy exceeds 275% of the national average. Eligible projects also include on-grid and off-grid renewable energy projects and the implementation of energy efficiency and energy conservation projects.	Recurring opportunity

Opportunity Name	Description	Eligibility and Typical Release Date
U.S. Department of Agriculture Rural Development Rural Energy for America Program Energy Audit and Renewable Energy Development Assistance Grants	https://www.rd.usda.gov/programs-services/rural-energy-america-program-energy-audit-renewable-energy-development-assistance/ak This program assists rural small businesses and agricultural producers by conducting and promoting energy audits and providing Renewable Energy Development Assistance (REDA). The assistance must be provided to agricultural producers and rural small businesses. Rural small businesses must be located in eligible rural areas. This restriction does not apply to agricultural producers. Assistance provided must consist of: Energy audits; Renewable energy technical assistance; Renewable energy site assessments. Applicants must submit separate applications, limited to one energy audit and one Renewable Energy Development Assistance (REDA) per fiscal year. The maximum aggregate amount of an energy audit and REDA grant in a Federal fiscal year is $100,000. Eligible project costs may include: Salaries directly related to the project; Travel expenses directly related to conducting energy audits or renewable energy development assistance; Office supplies; Administrative expenses, up to a maximum of 5 percent of the grant, which include but are not limited to utilities, office space, operation expenses of office and other project-related equipment.	State and local governments, Federally-recognized Tribes, institutions of higher education, Rural electric cooperatives, Public power entities, An instrumentality of a state, tribal or local government, and Resource Conservation & Development Councils (as defined in 16 USC §3451). Application due February 1, 2021
U.S. Department of Agriculture Rural Development (Section 504) Single Family Housing Repair Loans & Grants	https://www.rd.usda.gov/programs-services/single-family-housing-repair-loans-grants Provides loans to very-low-income homeowners to repair, improve or modernize their homes or grants to elderly very-low-income homeowners to remove health and safety hazards.	Applications accepted year-round.
U.S. Department of Agriculture, Business and Cooperative Programs, REAP-Renewable Energy Systems and Energy Efficiency Improvements	https://www.grants.gov/web/grants/view-opportunity.html?oppId=321976 The Rural Energy for America Program will provide funds to agricultural producers and rural small businesses to install renewable energy systems and energy efficiency improvements. The Rural Energy for America Program is designed to help agricultural producers and rural small businesses reduce energy costs and consumption and help meet the nations critical energy needs. The project must be to conduct a feasibility study for a renewable energy system. Eligible technologies include projects that produce energy from wind, solar, biomass, geothermal, hydro power and hydrogen-based sources.	Agricultural producers and rural small businesses, all agricultural producers, who gain 50% or more of their gross income from the agricultural operations, including aquaculture, rural electric cooperatives. Next opportunity due September 30, 2020

Opportunity Name	Description	Eligibility and Typical Release Date
U.S. Department of Energy, Golden Field Office, Energy Technology Deployment on Tribal Lands	https://www.grants.gov/web/grants/view-opportunity.html?oppId=325831 This fuel and technology neutral program supports projects to: 1) Install energy generating system(s) and energy efficiency measure(s) for Tribal Building(s); or, 2) Deploy community-scale energy generating system(s) or energy storage on Tribal Lands; or, 3) Install integrated energy system(s) for autonomous operation (independent of the traditional centralized electric power grid) to power a single or multiple essential tribal facilities during emergency situations or for tribal community resilience; or, 4) Deploy energy infrastructure and integrated energy system(s) to electrify Tribal Buildings. The intended results of the 50% cost-shared projects selected are to reduce or stabilize energy costs and increase energy security and resiliency for Indian Tribes and tribal members.	Native American tribal organizations, Native American tribal governments (Federally recognized), Alaska Native Regional Corporations and Village Corporations, Intertribal Organizations, and Tribal Energy Development Organizations Recurring funding opportunity, most recently due July 1, 2020
BIA Tribal Energy Development Capacity (TEDC) Grant	https://www.bia.gov/sites/bia.gov/files/assets/as-ia/ieed/demd/pdf/TEDC%20Grant%20Solicitation%20-%20DEMD.pdf The purpose of the TEDC grant program is to develop tribal managerial, organizational and technical capacity needed to maximize the economic impact of energy resource development on Indian land.	Tribes Next opportunity due Sept 1, 2020.
AEA Renewable Energy Fund (REF)	http://www.akenergyauthority.org/What-We-Do/Grants-Loans/Renewable-Energy-Fund-REF-Grants Funds reconnaissance studies, feasibility studies, final design and construction of wind, solar, geothermal, waste heat recovery, hydrothermal, wave, tidal, river in-stream, hydropower, low-emission nontoxic biomass, dedicated energy crops, landfill and digester gas. Must be a new project not in operation as of August 20, 2008 or an addition to an existing project made after August 20, 2008. Other eligibility restrictions may apply.	Electric utility, independent power producer, local government (incl. tribal councils, housing authorities) July 20 - September 28, 2020 for Fiscal Year 2022 funding. Additional rounds may open in future years.
Denali Commission	https://www.denali.gov/funding-requests/ Click on the funding request button and fill out the downloadable form for energy and renewable energy projects. The Commission reviews requests on a monthly basis.	FY2021 funding available Oct 1, 2020
State of Alaska Department of Labor Career Support and Training Funds	These provide funding for training and are available with the local Job Center in the area.	

Opportunity Name	Description	Eligibility and Typical Release Date
EPA Environmental Workforce Development and Job Training (EWDJT) Grants	https://www.epa.gov/grants/fy2021-environmental-workforce-development-and-job-training-ewdjt-grants This opportunity funds nonprofit organizations to deliver Environmental Workforce Development and Job Training programs that recruit, train, and place local, unemployed and under-employed residents with the skills needed to secure full-time employment in the environmental field. These Grants require training in brownfield assessment and/or cleanup activities, and that Hazardous Waste Operations and Emergency Response (HAZWOPER) training be provided to all individuals being trained. EPA encourages applicants to develop their curricula based on local labor market assessments and employers' hiring needs, while also delivering comprehensive training that results in graduates securing multiple certifications.	Nonprofit organizations FY2021 applications are due September 22, 2020
BIA Energy and Mineral Development Program	https://www.bia.gov/as-ia/ieed/division-energy-and-mineral-development/tribal-toolbox/tribal-funding Funds projects that assess, evaluate, or otherwise promote the productive use or development of energy and mineral resources on Indian lands. EMDP Projects may include: Performing initial resource exploration; Defining potential targets for development; Performing market analysis to establish production/demand for a given commodity; Perform economic evaluation and analysis of the resources; and Other pre-construction studies necessary to promote the use and development of known energy and mineral resources. DEMD requires that grant proposals include: (1) a current tribal resolution authorizing the proposed project, (2) a proposal describing the planned activities and deliverable products; (3) a detailed budget estimate; and (4) a designated tribal lead. Resources Eligible for Funding include Minerals, Biomass – Woody and Waste, Hydro, Solar, Wind, Geothermal, Oil, Natural Gas, and Coal	federally recognized tribal organizations and Tribal Energy Development Organizations Recurring opportunity. Grant awards are discretionary, and subject to the availability of funds as appropriated by Congress on a year-to-year basis.
U.S. Department of Labor Employment and Training Administration Strengthening Community Colleges Training Grants	https://www.dol.gov/agencies/eta/skills-training-grants/scc The purpose of this grant is (1) to increase the capacity and responsiveness of community colleges to address the skill development needs of employers and dislocated and unemployed workers, incumbent workers, and new entrants to the workforce; (2) to offer this spectrum of workers and other individuals accelerated career pathways that enable them to gain skills and transition from unemployment to (re)employment quickly; and (3) to address the new challenges associated with the COVID-19 health crisis that necessitate social distancing practices and expanding online and technology-enabled learning and migrating services to a virtual environment. **Alaska's rural campuses may want to work together to leverage our various strengths for this opportunity.**	Due October 8, 2020

Opportunity Name	Description	Eligibility and Typical Release Date
Renewable Energy Tax Credits/ Investment Tax Credits	https://www.irs.gov/newsroom/energy-incentives-for-individuals-residential-property-updated-questions-and-answers The residential energy efficient property credit allows for a credit equal to the applicable percent of the cost of qualified property. Qualifying properties are solar electric property, solar water heaters, geothermal heat pumps, small wind turbines and fuel cell property. Only fuel cell property is subject to a limitation, which is $500 with respect to each half kilowatt of capacity of the qualified fuel cell property. Generally, this credit for alternative energy equipment terminates for property placed in service after December 31, 2021.	
State of Alaska Registered Apprenticeship programs	https://jobs.alaska.gov/apprentice/ A key difference between registered apprenticeship and other forms of training is that a registered apprentice is a paid employee from the start of the program. Although an apprentice's wages usually begin at a lower level than those of incumbent workers (although not less than the minimum wage), the wages must increase as the apprentice progresses through the program, based on a schedule outlined in a written agreement between the employer and the apprentice. The employer must designate a qualified mentor to supervise and train the apprentice. Registered apprenticeship programs may be sponsored by individual businesses, trade associations or other industry groups, or through joint partnership agreements with labor organizations.	