

BERING STRAIT REGIONAL ENERGY NETWORK



THE QUARTERLY NEWSLETTER ON ENERGY IN OUR REGION

THE BERING STRAIT REGIONAL ENERGY NETWORK IS MAINTAINED BY KAWERAK INC.'S ENERGY PROGRAM. PART OF THE ENVIRONMENTAL PROGRAM, NATURAL RESOURCES DIVISION

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HEAT RECOVERED - Peter Olson with the City of Golovin shows Kawerak Environmental Program staff the boiler room in the community washeteria. This building also utilizes the city heat recovery loop (captured heat from power plant generators) which provide supplemental heat for community facilities. Photo by Kawerak, Inc.

RECOVERING PRECIOUS HEAT

Heat recovery systems are currently in the "design phase" in Teller, Shishmaref, Wales, and Koyuk

While many rural Alaskans are working to implement sustainable, renewable energy solutions for the future, it is still diesel generators that produce the bulk of the power for our remote towns.

Why diesel generators? They work well in low temperatures, the fuel is transportable, they produce reliable power, and at the moment, they offer the best energy bang for the buck for most utilities. Also, diesel generators are HOT!

In rural Alaska, heat can be just as expensive as electricity. When diesel is burned by large generators in the local power plant, millions of excess BTUs of heat are wasted. Capturing, or "recovering" that heat can help to heat buildings or homes around the community, and saves money.

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WHAT'S INSIDE:



FEATURED STORY:

Heat recovery projects planned in four communities for 2020



YEAR IN REVIEW:

Our fave photos from 2019!



COMMUNITY SPOTLIGHT:

Nome and White Mountain eighth-graders participate in Power Pledge Challenge



QUARTERLY CONTEST:

Enter to win a Kawerak Environmental Program hoodie & reusable bags



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COVER STORY: RECOVERING PRECIOUS HEAT

While not a renewable resource (since the heat is created by burning fossil fuels), heat recovery is definitely an energy efficiency measure, and helps communities to utilize as much energy from expensive fuel as possible. While the ultimate goal for communities in the Bering Strait Region is to reduce their dependence on fossil fuels and develop more sustainable, renewable energy resources, there are many energy efficiency solutions that can happen immediately to reduce costs, reduce demand, and reduce fuel usage. Heat recovery is a great option for many power plants, to optimize energy efficiency measures as they work towards more long-term solutions for energy independence.

Heat recovery systems are currently in the "design phase" in **Teller, Shishmaref, Wales, and Koyuk**. According to Alaska Native Tribal Health Consortium (ANTHC) Rural Energy Sr. Project Manager Jonathan Pierson, construction in Wales and Teller is planned to begin in 2020. According to ANTHC Sr. Project Manager Dan Smith, Shishmaref should be at 65% design completion by the end of January 2020 and Koyuk's design will begin as soon as funds can be secured.

Currently, there are seven active heat recovery systems in power plants in the region: Golovin, Nome, Unalakleet, Savoonga, White Mountain, Shaktoolik, and Stebbins. The majority of these systems are used to heat the community water supply, or community facilities like the clinic, school, washeteria, city buildings, or supply local heat to the power plant.

The power plants in Brevig Mission, Diomedes, Elim and Gambell do not have heat recovery systems installed on their diesel generators, however Gambell has a wind-to-heat system installed at their water treatment plant.

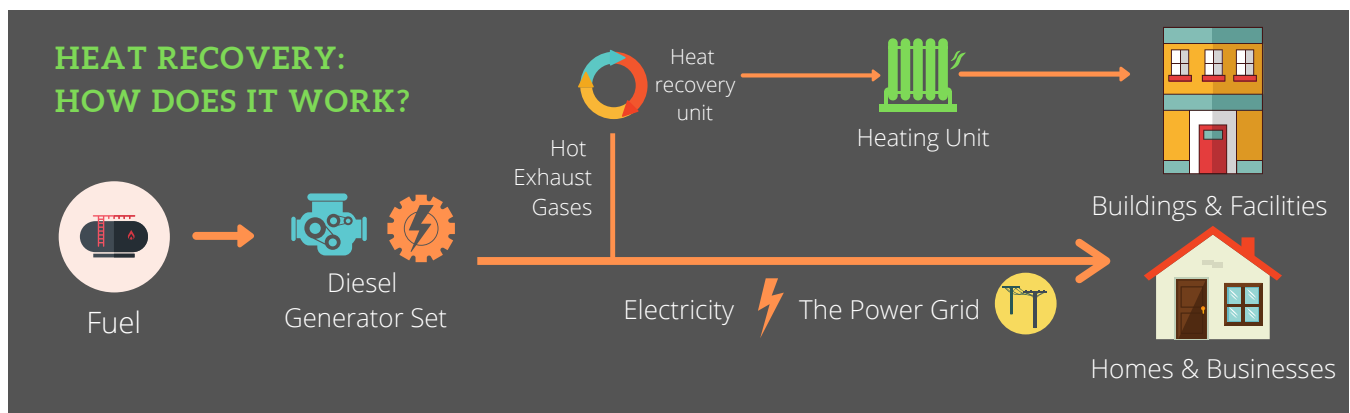
Currently, ANTHC has funding available to assess existing heat recovery systems to see if they can be optimized and/or expanded. Please contact energy@kawerak.org or reach out to the Rural Energy Program at ANTHC if your community is interested in having your existing heat recovery system investigated.



HEAT SUPPLY & RETURN - Waste heat from the City of Golovin power plant is supplied to the local washeteria. The loop returns back to the power plant and circulates to other facilities in the community. *Photo by Kawerak, Inc.*



HEAT RECOVERED - This unit collects heat from the diesel generators in Unalakleet and distributes that heat to facilities around the community. *Photo by Kawerak, Inc.*

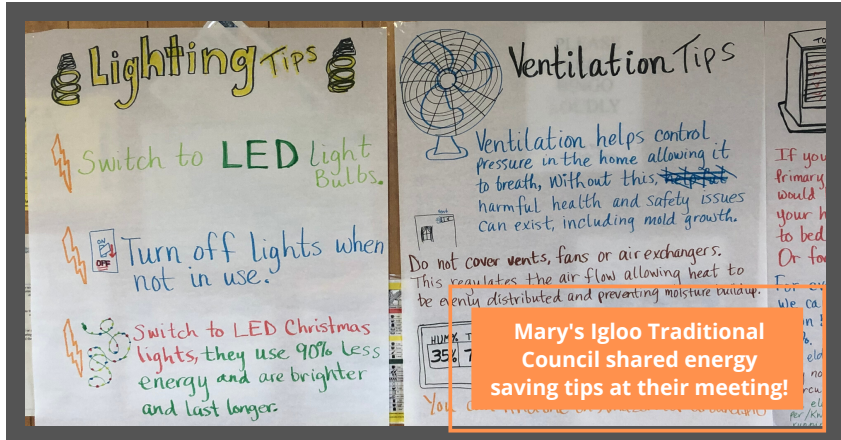




2019 Year in Review: Energy photos from our region



2019 Youth Environmental Educational Summit



Mary's Igloo Traditional Council shared energy saving tips at their meeting!



Village of Solomon Meteorological Tower Collects weather data



Teller Native Corporation workers prepare to repaint and do maintenance on their bulk fuel farm



Brevig Mission City Council members prepare to meet about energy projects



2019 Bering Strait Regional Energy Summit



Strategic Energy Management Workshop speakers & participants



Photo courtesy of Anvil City Science Academy

ENERGY EDUCATION IN THE CLASSROOM

Students from Anvil City Science Academy (ACSA) in Nome learn about energy. Taylor Ferguson, STEM Educator with Renewable Energy Alaska Project (REAP), teaches this class how to assemble blades for a model wind turbine. REAP also shared information about the Power Pledge Challenge with eighth grade classes at ACSA, Nome-Beltz Junior High, and White Mountain School. Keane Richard's 3rd period class from ACSA won the STATE PRIZE THIS YEAR! Great job, kids.

Community Spotlight: Power Pledge Challenge comes to Nome & White Mountain

In early October 2019, educators from Renewable Energy Alaska Project traveled to Nome to teach eighth graders at Anvil City Science Academy and Nome-Beltz Junior High School about energy usage in their homes and community. Eighth graders at White Mountain School also participated this year, with REAP teachers providing a distance presentation. Students learned the current prices of electricity in their region, and used mathematics skills to calculate average monthly costs for the typical devices and appliances they use every day. At the end of the session, students were invited to go online and make a pledge to reduce their energy usage in three different ways, such as turning off lights or unplugging the TV when not in use. Classrooms from all around the state of Alaska competed, and this year the FIRST EVER rural classroom took home the state prize. From our region: Anvil City Science Academy, teacher Keane Richard's 3rd period classroom. Great job, future energy stars! Their class will receive a pizza party and a tour of the local power plant in Nome, as well as a supply of educational materials from REAP.

QUARTERLY CONTEST!

Start the new year off right by pledging to reduce waste and be more efficient! ENTER TO WIN - a Kawerak Environmental Program Hoodie & two reusable Kawerak logo ChicoBags® Switch to reusable grocery bags to reduce waste, and turn down the thermostat just a few degrees to save energy.



To enter for a chance to win this prize, go to the link [Kawerak.org/energy](https://kawerak.org/energy) and sign up for our "Energy News Email List." If you're already on our email list, you'll be automatically entered in the drawing!



Connect with us!
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Learn more about our program:
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