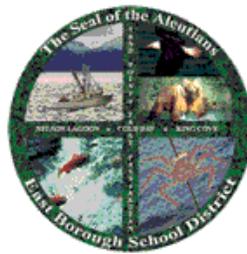
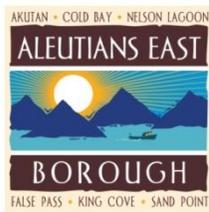


In the Loop



Bringing the Aleutians East Borough, the AEB School District and Eastern Aleutian Tribes together by sharing common goals.

Federal Dollars Help Turn the Tide for Renewable Energy Project in False Pass

A surge of funding is breathing new life into a tidal energy project in False Pass. Last month, the U.S. Department of Energy's Office of Energy Efficiency and Renewable energy (EERE) awarded a \$200,000 grant to Ocean Renewable Power Company (ORPC). The Phase 1 Grant awarded through EERE's Small Business Innovation Research Program will enable ORPC to move forward with the development of a tidal-powered energy storage system in the small community.

"False Pass would be the first remote community where we try to do this in a tidal application," said ORPC's Monty Worthington, Director of Project Development – Alaska.

ORPC is no stranger to transforming a remote Alaskan community's natural resources into an impressive renewable energy project with commercial potential. Last month, U.S. Senator Lisa

Murkowski announced that the Federal Energy Regulatory Commission (FERC) has given the



ORPC RivGen® Power Systems at FERC-permitted site, Kvichak River, Igiugig, Alaska, prior to installation, July 2019. Photo credit: ORPC, Inc.

green light to the final installation and operation of a river marine renewable energy (MRE) project on the Kvichak River in Igiugig, Alaska via a pilot license. The Igiugig MRE Project will generate emission-free electricity by converting the energy of river currents into a dependable source of electricity. The Igiugig Village Corporation is the first tribal entity in the nation to earn this approval.

“Igiugig’s efforts are blazing a trail for marine renewable energy and microgrid

solutions around the world,” Senator Murkowski said in a recent press release. “When we prove these technologies can work in rural Alaska, we are proving they can work just about anywhere else on the planet.”

“It really has put Igiugig at the forefront of the hydrokinetic industry, not only in Alaska, but nationwide,” said Worthington. “It’s the only commercial hydrokinetic project that’s happening in the country right now.”

This month, the first of ORPC’s commercial RivGen® power systems is being installed in Igiugig. This required permits from the Alaska Department of Fish and Game, the Alaska Department of Natural Resources, in addition to the FERC license.

Worthington said the commercial prospects for False Pass’s tidal energy can be modeled after Igiugig’s, taking this innovation to a new level.

“The RivGen unit in Igiugig, slightly modified for tidal applications, could be deployed in False Pass,” he said, “or we could look at a slightly larger turbine that’s called a TidGen® Power System, the commercial design for which ORPC engineers are working on right now. I really see False Pass as the opportunity to prove out ORPC’s technology in Alaska in remote tidal applications.”



ORPC RivGen® Power Systems at FERC-permitted site, during power and data cable installation, Kvichak River, Igiugig, AK, July 2019. Photo credit: ORPC, Inc.

Several years ago, ORPC partnered with APIA, APICDA and the City of False Pass to look into this powerful potential renewable energy resource. The University of Anchorage Alaska created a circulation model to help determine where areas with high current velocities would likely be

located in the False Pass area. Data produced by two acoustic Doppler current profilers, also known as ADCPs, measured tidal current velocities.



ORPC's Monty Worthington deploys an ADCP in Isanotski Strait in 2012. Photo credit: ORPC, Inc.

In 2012, the ADCPs were deployed on the ocean floor at two locations in False Pass. One was deployed near Whirl Point in Isanotski Strait, an area most likely to have the highest current velocities. The other was placed closer to town. The data revealed that the highest currents, near Whirl Point, provide a robust tidal energy resource. The narrow Isanotski Strait, straddled by the Pacific Ocean on one side and the Bering Sea on the other, creates very swift current velocities. The data collected surpassed researchers' expectations.

“False Pass is legendary for its high current velocities,” Worthington said.

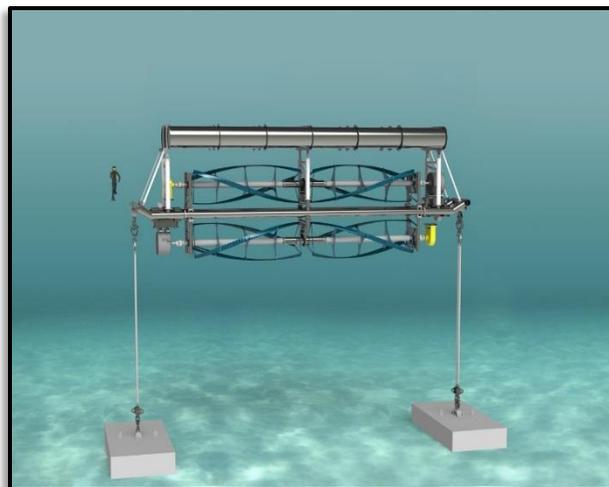
Fast forward to five years later, with an infusion of grant money, and a company with a proven record of harnessing both river and tidal renewable energy utilizing remote community grid systems, and the possibilities for False Pass look very promising indeed.

“When we look at doing tidal and river projects in remote communities, one of the advantages is that tidal and river currents are very predictable,” Worthington said, “so there is the very real possibility of using energy generated from these resources for baseload or dependable output.”

Worthington said ORPC can plan around when the tides are going to flow and how fast they will do so. Soon the modeling work for this project will begin.

“What our company is striving to do is to integrate hydrokinetics with energy storage and smart grid controls to enable hydrokinetic energy to provide the baseload, and diesel to become more of a backup to the grid.”

ORPC's goal is to reduce diesel usage in False Pass by 90%.



ORPC, Inc. may consider using the TidGen® Power System in False Pass for the tidal energy project. The TidGen® device, appropriate for deeper waters, utilizes a positively buoyant mooring system so the turbine generator unit can be placed at an optimal location in the water column. Photo courtesy: ORPC, Inc.

“I think it adds more value when you can actually turn the diesel off for significant periods of time and just run renewable energy,” Worthington said. “False Pass has an excellent resource and a very exciting potential.”

Looking Towards the Future: Reinvesting in Renewable Energy

By Gary Hennigh, King Cove City Administrator

King Cove’s two hydro facilities, Delta Creek and Waterfall Creek, continue to perform exceptionally well. For the first six months of 2019, our two hydro facilities produced more than 80% of the community’s electric demand. On a typical summer day and week, our electric utility is 100% renewable energy. The City remains very pleased with these investments, even in consideration of the \$5.0 million debt risk we took on to construct them.



Waterfall Creek



Delta Creek

In order to continue maximizing, and possibly expanding, the energy production from these two facilities, it is time for the City to now spend \$600,000 over the next 6-9 months. Two key expenditures are required, including: 1) purchase of a new turbine runner for the Delta Creek hydro; and, 2) concrete rebuild of the Glacier Creek Sluiceway adding HDPE plates and a new gate wall and thimble (i.e. frame which the gate slots into). These parts and repairs are a direct result of the constant heavy sedimentation and turbulent water that occurs in Glacier Creek.

The new turbine runner is being fabricated by Gilkes & Gordon Ltd (England). This is the same company that manufactured the original turbine and generator for Delta Creek in 1994. The new runner is expected to arrive in King Cove by the end of March (2020) and installed in April. The new runner is expected to increase the annual output of Delta Creek by 5-10% (200,000 kWh). More importantly, the new turbine runner should prevent any catastrophic damage causing significant interruptions to Delta Creek generation. We clearly understand about the cost savings



The new turbine runner needed for the Delta Creek hydro facility is expected to arrive in King Cove in March 2020 and will be installed the following month.

of using renewable energy instead of diesel. The cost for this project is expected to be \$300,000.

The rebuild of the Glacier Creek Sluiceway will be completed this fall using a combination of City employees from our Electric and Public Works Departments and one outside contractor. The City is very fortunate to have a number of highly skilled employees to do this work. Final engineering plans and material lists are being completed now by our HDR hydro engineers and the City. The cost for this project is also expected to be approximately \$300,000.

The City expects to pay cash for both of these projects using a portion of our reserved funds from our electric fund and our utility repair & replacement fund established for such major expenditures. These expenditures will not result in any electric cost increases. Instead, these investments are expected to keep our rates stabilized - with an “eye” towards future rate credits.

King Cove’s current \$0.30/kWh continues to be the “cheapest” cost of electricity of more than 180 electrical utilities around the State that receives the PCE subsidy. Unfortunately, King Cove no longer receives a PCE subsidy. We are 1 of 3 utilities (out of more than 180 utilities) in this status of not receiving the PCE subsidy. The City continues to believe this is not fair, particularly in view of our success (and risk) with renewable energy. We believe the PCE program should incorporate our situation into its regulations by allowing the annual cost of our long-term debt, which is about \$250,000, as an expenditure “substitute” for our more than \$400,000 annual fuel cost savings. The City continues to advocate for this PCE modification with the State and our elected officials.

Logan Thompson Reflects on his Term as Youth Representative on Aleutians East Borough Assembly

Logan Thompson, a senior with the Sand Point School, said serving as Youth Representative on the Aleutians East Borough (AEB) Assembly was a very valuable experience. Thompson was the first student to serve on the Assembly in this capacity during his junior year after the Assembly added a section to the Borough code providing students with this opportunity. Youth representatives may cast advisory votes on all matters except those subject to executive discussions.

“I think it’s important to hear what younger people have to say because before you know it, we kids are going to be the ones deciding and making the decisions,” Thompson said.

The position of Youth Representative is open to all Aleutians East Borough District high school students, grades 9 through 12. Interested students may submit a letter of interest to their high school student council and principal. The student council then nominates a student to be submitted to the mayor, with approval from their high school principal. Thompson filled out an application to be considered for youth representative last fall. After getting approved, he began serving on the Assembly in December.

“I definitely learned about current events throughout the Borough,” said Thompson. “Before, I really only had an idea of what was happening in Sand Point. This helped me to learn about what’s happening in all the communities. It also made me more comfortable around other people in voicing my opinions.”

Thompson said he has always been fascinated by politics.

“My whole family is,” he said. “It’s something that has always interested me.”



From left to right: AEB Assembly Member Josephine Shangin, former Assembly Member Angela Simpson, Youth Representative Logan Thompson, Assembly Member Carol Foster, AEB Mayor Alvin Osterback, Assembly Members Chris Babcock, Warren Wilson, Ingrid Cumberlidge and Paul Gronholdt. Logan Thompson served from December 2018 to May 2019.

Thompson's family has provided plenty of inspiration for this young man. His grandmother, Carol Foster, has served on the Aleutians East Borough Assembly for 20 years. Her experience and leadership in local government sparked Thompson's interest in government policy at an early age.

"Definitely. I would ask her questions and she would be able to answer them," Thompson said. "I just really like thinking that I can change things for different people."

His father, groundfish trawl and salmon seine captain Kiley Thompson, is president of the Peninsula Fishermen's Coalition, President of the Area M Seiners Association, and Board President of Aleutia. He actively participates in the Alaska Board of Fisheries meetings as well as those at the North Pacific Fishery Management Council.

"I guess politics has always interested me," Logan Thompson said. "It was interesting to me to see how much debating and action there was during the Board of Fish meetings (in February).

His mother, Heather Thompson, is Vice President of the Unga Tribal Council. She served 2 terms as board member for Aleutian Housing Authority (Chair for 1 year) and currently sits as board alternate for Eastern Aleutian Tribes.

Before serving on the Assembly, Logan Thompson participated in the Alaska Youth Advocacy Institute in Juneau. He has also taken part in three of the Alaska Association of Student Government Conferences. The fall and spring conferences attract as many as 500 students from across the state. The students draft resolutions and debate the merits of various issues in front of a large gathering of their peers.

"It's all about students working on what they think is right and what they think is important," Thompson said. "It helps us to use our voices. We actually got to talk to legislators across the state. That definitely showed us how strong the voice of youth is."

Thompson said he used to be terrified of speaking in front of large crowds. However, these experiences enabled him to find his stride.

"Going to these places where there's about 500 kids, it really helped to broaden my horizons and made me more comfortable with all of these people," he said. "They're open and excited to hear what you have to say. It was very empowering to know that our voices were actually wanted instead of just heard."

That background served him well when he was selected to serve as Youth Representative on the Borough Assembly. Thompson served through May 2019. He has some advice for Borough students who might want to follow his lead and serve on the Assembly.

"Do it! It's very gratifying," he said. It's uplifting and a great experience. I'm very grateful that I got involved. It's something I'll remember for my whole life. It was one of the best experiences I've ever had."

Urban Unangaġ Culture Camp Draws Record Participation



Chyonne Buterin teaches headdress sewing at APIA’s Urban Unangax Culture Camp.

Last month marked the 12th year for APIA’s Urban Unangaġ Culture Camp. Not only was that a significant milestone, but the camp also had its largest turnout ever with more than 236 participants, including 15 instructors and volunteers as well as 13 Unangam Tunuu (language) interns.

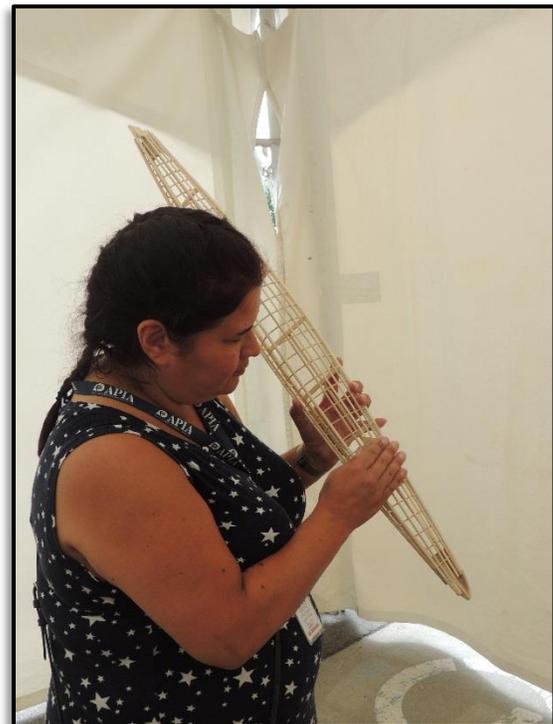
“We had more applications than ever this year, said APIA Cultural Heritage Director Millie McKeown. “Sadly, due to building

capacity and class size limit, we had to deny over a dozen applicants.”

The culture camp is held every year at APIA’s central headquarters in Anchorage. The classes include carving, jewelry making, traditional foods, visors, drums, dance, headdress/regalia, basket weaving, Unangam Tunuu, model iqyas (kayaks), glass ball beading and halibut hooks.

“This year, the youth had the opportunity to make a traditional handline halibut hook with Mr. Moses Dirks,” said McKeown. “It was the first time we have had this class at the camp.”

One of the class favorites includes model iqyas (kayaks). Instructor Teresa Smith said the kids enjoy this class because they’re interested in how their ancestors used to do things.



Lavern Kochuten works on her model iqya.

“When I explained about how we use all these tools now, and that our ancestors had very little back in the day,” Smith said, “they’re really astounded by that, and so am I.”



Instructor Teresa Smith said students enjoy learning how to create model iqyas because they’re interested in how their ancestors used to do things.

The model iqyas are about three feet long. She teaches both western and eastern Aleutian styles, which differ slightly in the bows, sterns and paddles.

Sixteen-year old Lucas Galovin created a western style iqya.

“It’s intriguing to think about the differences between the stern and the bow,” he said. “I also like the craftiness it takes to make a model because it takes precise hand movements, but it’s easy to learn and pick up.”

Galovin said when he concentrated on his creation, it was easy to get lost in it while enjoying the task at hand.

“When you’re doing something like this, you can put a lot of your energy into it,” he said. “When you take two sticks and make it into something cool like a model iqya, it’s really awesome.”

Smith said building them is a lot of work, but it’s also very gratifying.

“I could see, especially when they finish, how proud they are,” she said. “It makes them feel good about themselves to learn more about where they came from. It makes me feel great, too.”

Dance is another popular class. The dances taught at culture camp were all from Atka.



Crystal Dushkin (right) works with youth to teach them dances that were created by the dance group in Atka.

“Our dance group in Atka created the songs and the dances,” said Crystal Dushkin, who is also the mayor of Atka. “Each dance has its own meaning, and the words tell a story.”

For Dushkin, as well as many others, the significance of learning these dances is profound. The reasons are deeply rooted in a part of their history that goes back to World War II and beyond.

After the Japanese bombed Dutch Harbor, the U.S. Army evacuated more than 800 people, including residents of Atka, to internment camps in southeast Alaska, about 1,500 miles away from their traditional homes. Tuberculosis and pneumonia claimed the lives of many people during that time, including elders.

“It was such a difficult experience for everybody,” said Dushkin. “Dancing was associated with pride in who we were, joy and celebration, but the war took that away from us for a while. The dancing went to sleep.”



Dancers perform during APIA’s Urban Unangax Culture Camp.



The Atka dance group conducted extensive research to recreate dances their ancestors did. “So we tried to recreate, but it was also our creation,” Crystal Dushkin said.

Dushkin said during the 1970s, some Aleutian communities were trying to bring dancing back.

“Each of the communities were doing their own thing independently,” she said, “but there wasn’t any kind of collaborative effort.”

Dushkin said when she was growing up in the 80s, there wasn’t any visible presence of Unanga dance groups at the state level. She remembers watching

other Alaska Native groups dancing on TV during the AFN convention, and asking her family, ‘where are the Unanga dancers?’ “Our people didn’t dance,” she said.

During the 1990s, a full-force cultural revitalization effort took place in the Aleutians. In Atka, the dancers conducted extensive research to recreate what they could find.

“We did a lot of looking into what our ancestors’ dances would have been like, relying on historical sources,” Dushkin said.

Those sources included recordings taken in the early 1900s.

“So we tried to recreate, but it was also our creation,” Dushkin said. “We tried to keep it tied in as closely as possible to our ancestors.”

On the first day of camp, students learned about this history in order to understand the background and significance behind the dances.

“Our people thought it was important to bring dancing back and not let it remain sleeping,” she said. “We’re so proud to be able to represent our people. Later generations won’t have to wonder where the Unangâ people are. We’re here now, and we’re so proud to have this. That’s really why we do what we do.”

Passing on the language of the Unangâ people is also important for keeping the culture alive. As a key component of that goal, APIA has enlisted the help of interns to teach the language (Unangam Tunuu) to Urban Unangâ Culture Camp participants.



APIA language interns (from left to right) Kira Zacharof, Madeline Snigaroff and Nathaniel Williams teach Unangam Tunuu to children during the camp’s Traditional Foods class.

“We are excited to have our Unangam Tunuu interns work with the children and youth to provide an engaging learning experience,” McKeown said.

“In the mornings, the younger kids filtered through three stations,” said language intern-instructor Madeline Snigaroff. “There was traditional foods, art and dance. During each of those stations, we taught them the language, just taking them through some of the earliest lessons that we have built.”

In the afternoons, the interns taught lessons to the older kids, including how to introduce themselves in Unangam Tunuu.

“Other than that, we sat down with the elders and hunted out language from them. Then we would teach off to the rest of our team so everyone would be on the same page.”

The interns are also part of a summer intensive language program. Along with the Urban Unangaġ Culture Camp, they took part in another culture camp for their dialect group in Atka. In addition, APIA hosts the Unangam Tunuu Community Night every Thursday from 6:30 to 8 p.m.



The kids enjoy learning Unangam Tunuu from the language interns during the Traditional Foods class.

“I think it’s super important to keep the Unangaġ culture alive and keep the language alive,” Snigaroff said. “It’s so encouraging to me and also for the elders to see young people involved, acquiring leadership skills and learning their heritage language.”

Learning how to prepare traditional Foods is also very valuable. Josephine and Tim Shangin have taught this popular class at the camp for the last few years. The instructors transported at least 400 pounds of food from Akutan to Anchorage for the camp. The food

consisted of sea lion, seal, octopus, puffins, ducks, halibut, fish and clams. The Shangins also brought dried wild parsley and seal oil.

“Tim and I both agree that the kids’ questions and willingness to try almost everything is the best part,” Josephine Shangin said. “There are a few who have been coming to our class for the last three years because they love all the foods, and we are always happy to see their enthusiasm. They want to participate in everything that we do, and I love that!”

Shangin said because the Urban Unangaġ Culture Camp is in mid-June, they are unable to catch fresh sockeye. She said any salmon donations would be greatly appreciated.

“The Urban Unangaġ Culture Camp is a rewarding experience



Children help prepare food in the Traditional Foods class taught by Josephine Shangin (right) and her husband, Tim.

and has a healthy impact on the well-being of the members of our community,” McKeown added. The camp is made possible through support from many community organizations and businesses. “We are very grateful for their generosity,” she said.

If you have news you’d like to share or if you’d like to subscribe, please email ltanis@aeboro.org or call Laura Tanis at (907) 274-7579.



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