

High School Looks to the Sky for Energy

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The Skystream 3.7 is a 2.4 kW wind turbine recently installed outside the Kodiak Island Borough Building. Brianna Gibbs/KMXT photo

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Just months after three new wind turbines were installed on Pillar Mountain the Kodiak High School got its own taste of wind energy when it raised another turbine outside the borough building on Signal Hill. While much smaller than those on Pillar, Kodiak's seventh wind turbine generates 2.4 kilowatts of electricity, which is fed into the power grid of the borough building. Julie Estey is the director of the Alaska Wind for Schools program, and said the project has been almost three years in the making.

-- (School Turbine 1 :31 "The Alaska Wind for Schools program started three years ago now. It's a national program run out of the national renewable energy lab by the department of energy. And the model of the program is to use a wind turbine and the data and the mechanics behind it to teach K through 12 students about science, technology, engineering concepts. And also then to involve then college level students, whether it's at the university or the local college, and helping provide technical support. So really providing stem education from K through workforce development.")

Estey said Alaska became the 11th state to participate in this program and put out a call to see who was interested. Kodiak was one of the first school districts to step up and take initiative with the program. She said there is a lot of logistics, permitting and planning that goes into a project like this and very few schools have made it as far as Kodiak. She said the fact that Kodiak has a turbine generating energy is a true testament to the teamwork and collaboration that takes place on this island.

Superintendent Stewart McDonald said a lot of teamwork went into this project and many community members provided their expertise and funding to help make the project a reality.

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(School Turbine 2 :34 “The first and probably most significant contribution was the wind turbine itself from the U.S. Coast Guard. And they supplied the actual generating generator unit that sits on top of the pole. The school board voted two years ago to move ahead with this particular project. This project was not a business item that had a dollar amount so large that it required a vote, but we brought it before the school board to support the curriculum and the direction the school board was moving at the time and they were whole-heartedly committed to move this project forward.”)

Barry Altenhof is the career tech director for the high school and said Kodiak Electric Association and a number of local contractors gave their time and energy as well. He said many students will benefit from the project in many different ways.

-- (School Turbine 3 :15 “Just the experience of looking at the turbine and understanding the basics of it. And the high school kids that are going to participate directly and in science and natural resource programs to get a better in depth understanding of how it exactly works.”)

As for the energy produced from the turbine, Altenhof said they haven't been able to measure the exact amount, but that will come.

-- (School Turbine 4 :27 “The power it generates is fed back into KEA's grid. At the moment we're not equipped or set up for net metering. It's a term that gets thrown around a little bit and we're going to work with KEA to try to redefine exactly what that will mean for this turbine and for Kodiak, so that's another discussion that will take place downstream. But the power that we generate is being fed directly being fed into the grid in the borough building, so there is an immediate benefit.”)

The hope is to form classes and curriculum around the turbine and other renewable energy sources to better prepare Kodiak students for the changing world of technology and engineering.

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