

Tribe's tidal study wins energy grant

Tuesday, 17 June 2008

PLEASANT POINT, Maine - The Passamaquoddy Tribe's efforts to someday harness the energy-producing power of tidal and ocean currents and turn it into electricity took a step forward this week after the federal government awarded the tribe a \$120,000 grant, tribal environmental officials said Wednesday. The U.S. Department of the Interior's Division of Energy and Mineral Development awarded the grant. Stephen Crawford, the tribe's environmental director, said Wednesday the money would be used to place a turbine in the water to test the tidal power in waters off the reservation. "Preliminary studies have indicated sufficient tidal current to power underwater turbines designed by Underwater Electric Kite Inc., of Annapolis, MD," Crawford wrote in the proposal he presented to the federal government. UEK has been designing underwater turbines since 1981. The plan calls for the installation of a UEK 8-foot underwater turbine at two sites: Kendall Head and First Island, near the reservation. "The turbine will generate data that will be used to determine the feasibility of developing a tidal-power site that may include up to 55 turbines generating an estimated 29.25 gigawatt-hours," the proposal said. The tribe has been working on the project for the past three years. In 2006, the tribe received a \$55,000 federal grant to look at the feasibility of the project. The new grant will help the tribe take the next step. "The potential for tidal power development in Passamaquoddy Bay is considerable," the proposal said. "The energy consortium Electric Power Research Institute conducted a preliminary study in 2005 and determined that the Western Passage of Passamaquoddy Bay [the location of the tribe's sites] has the highest potential for tidal power development on the East Coast." Crawford detailed the short- and long-term benefits to the tribe. The first stage, he said, involves deploying the 8-foot turbine in several locations. After that, the tribe would install a permanent turbine to provide power to the Passamaquoddy Sewage Treatment Plant. "It uses approximately \$2,200 a month in power; this could be completely offset by the tidal turbine," he said. The third phase would be to deploy a number of turbines on the two sites to generate power for sale on the grid. "The most we can do is 5 megawatts and a megawatt does 1,200 homes," he explained. The idea of someday producing enough tidal power to run homes outside of Washington County is an ambitious plan. "If you go bigger than 5 megawatts, the substation in Eastport would have to change and that would be extremely expensive," he said. "So we could do 5 megawatts and produce power for every town in Washington County." Crawford said it was too early to determine if that translates into a savings for households because there are so many unknowns. "Tidal power is probably 30 years behind wind power," he said. But by the time the tribe gets around to providing power, Crawford said, it may be cost-effective. "The cost of electricity is going up," he said. "And the technology for the turbines gets better and cheaper, so the expense goes down." In the best possible world, Crawford said, the tribe could be in the tidal power business in the next decade and maybe sooner. Source: BangorNews.com