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## Native American Interview: Ron Philemonoff, Tanadgusix (TDX) Corporation

**Date:** 11/1/2003  
**Location:** St. Paul, AK  
**Tell us a little about TDX and TDX Power.**  
**A.** The U.S. government settled the Alaska Native land claims in 1971 by creating Alaska Native Claims Settlement Act (ANCSA) corporations (in other states, reservations were created). Tanadgusix (TDX) Corporation is an Alaskan Native Village Corporation formed under the ANCSA. As the village corporation for the community of St. Paul Island, TDX is the business arm of the Aleut/Native people of St. Paul. The land was deeded to TDX, which holds the St. Paul Aleut's homeland in trust. Congress also mandated that TDX create business opportunities and jobs for the Aleut people of St. Paul. The corporations must balance the sometimes-conflicting social, cultural, and welfare needs of our people with the needs of a for-profit business venture.



Ron Philemonoff received the wind-diesel pioneer award in 2002 for his substantial contribution to the wind-diesel effort over the years.

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To fulfill these duties and mandates, TDX separated its land from the business ventures and created a diversified business portfolio for a profitable corporation that would provide jobs, dividends, and social and cultural programs for the Aleut people of St. Paul. TDX is a now a diversified holding company with more than \$40 million in assets and is the major landowner on St. Paul Island.

TDX formed three subsidiary corporations to further diversify its business ventures. One of these subsidiary corporations, TDX Power Inc., is an independent power producer with a hybrid wind-diesel power plant in St. Paul (the largest hybrid wind-diesel power plant in Alaska) a 4-MW Cat diesel power plant in Sand Point, Alaska; and a 10-MW diesel and natural gas power plant on the North Slope in Dead Horse, Alaska.

**Tell us why TDX became interested in wind energy.**  
**A.** The Aleut people and TDX have been interested in wind energy long before modern times. My welcome remarks from the ribbon-cutting ceremony on St. Paul describe how we feel about the wind:

For millions of years, the Aleuts lived off this great land and sea and all of the natural resources that it provided. For all of those years and to this day, there was and is always one thing between the land and the sea: there was and there is the wind. The wind was and is our foe and our friend. It was the wind that blew our fathers, brothers, and sons to the deep dark depths of the sea. But the wind also blew the Aleut Chief's snow from the Aleutian Islands to the Pribilofs and showed us the way. The wind blows our scent to the reindeer. The wind provides the winter ducks for our hunters.

Some say that this is where the wind is born, and some say this land is nothing but a blowhole. To the Aleut people, this is where we are born, and we welcome the wind.

Now we will catch the wind and ride it into the 21st century.

With electricity costs around 40¢ a kilowatt and diesel costs exceeding \$2 a gallon (not to mention the environmental problems caused by diesel power plants), it was time for us to capture the wind. I have visited Palm Springs on many occasions and was always amazed by the scale and numbers of wind turbines in the valley. I wondered why Palm Springs had all of these wind turbines when their wind was but a breeze compared to the wind in St. Paul. Eventually I found Bruce Levy, who helped TDX get the best expertise and technology to tame the wind on St. Paul so that the Aleut people could ride the wind to the 21st century.

**Tell us about the St. Paul project.**  
**A.** The St. Paul project is located in the Pribilof Islands in the Bering Sea. It's a stand-alone utility system that combines heat and power. The 500-kW high-penetration, hybrid system is comprised of a 225-kW wind turbine and two 150-kW diesel gensets. The project supplies electricity and space heat to an industrial/airport facility. It's a commercial project—no grants were used to fund it. The cost of energy is +\$.15/kWh (current diesel grid cost is \$.34/kWh).

**Q. What has been the local response to the wind turbine?**  
**A.** The local Aleut people have welcomed the new technology and are proud that we have tamed the wind with the largest wind turbine in Alaska. The local people are also upset that

local and statewide energy policies have prevented this system from providing the ultimate benefit of wind energy to the individual homeowner. They cannot understand why they must continue to pay \$.40/kWh for diesel-generated electricity when we have captured the wind with the second-greatest average in the nation.

**Q. What have you learned from the wind project that will help TDX and others to expand the use of wind energy in Alaskan villages?**

**A.** Technology is only half the problem—the human element is the other half. The human element includes two problem areas: human resources and human nature. First, this new technology requires qualified maintenance personnel. We must train local personnel as soon as construction begins. We need a long-term warranty period—3 years at least to ensure that local staff gets "up to speed" with help from the turbine manufacturer.

Human nature is a nice way to say politics. The old guard refuses to accept change, and they will use any political means to block our progress.

**Q. What are TDX Power's plans for expansion for the St. Paul project?**

**A.** TDX Power plans to expand the power plant on St. Paul to help meet the growing demand for affordable heat and electricity. TDX is developing a cold storage/fish processing facility, and affordable power will be a requirement. Although the exact specifications of the plant are yet to be finalized, TDX will invest \$1.3 million in 5-600 kW of wind power capacity and additional heating infrastructure.

**Q. Does TDX Power have plans for wind augmentation/development at its other Alaska utilities?**

**A.** TDX Power is in the process of commencing feasibility studies for wind power at its electric utility in Sand Point. Like St. Paul, this Aleutian community has tremendous wind power potential, and development is likely. TDX Power has also been asked by the Alaska Energy Authority to assist with design engineering for a wind-diesel facility in Nikolski. Nikolski is a small community on the far west end of the Aleutian chain, often described as the oldest continually inhabited community in the world.

**Q. What prevents wind from reaching its full potential in Alaska Native villages?**

**A.** Technology is a limiting factor for further wind power development in Alaska. While the majority of the wind power industry continues to race toward larger, more sophisticated machines, few manufacturers focus on the small and midsize turbine market required in Alaska. In addition, politics and the structure of the Alaskan electric utility system also limit wind energy because there is little incentive to reduce fuel costs. The state fuel subsidy program, Power Cost Equalization (PCE), often encourages inefficiency in rural electric utilities because the subsidies do not reward efficiency.

**Q. What is your vision for the future of wind energy?**

**A.** We need to develop Native-owned and -operated hybrid wind-diesel power plants to reduce energy costs in villages. Low-cost energy stimulates economic growth and diversification, and many isolated diesel-powered grids exist in regions with good wind resources and high energy costs.

I'd also like to see wind power renewables added to village power stations. This would reduce fuel use and energy costs, use proven commercial technology, provide additional benefits to local economies, and improve air quality.

**Q. What must happen to achieve this vision?**

**A.** We are teaching others about wind energy. TDX has built the first Native-owned and -operated hybrid wind-diesel power plant in Alaska using only private financing. The Department of Energy and the National Renewable Energy Laboratory (NREL) have recognized this achievement and are working closely with TDX to expand on this success. NREL has held numerous workshops and conferences to promote wind power in Alaska and has invited TDX to many of these meetings to showcase our success story with hybrid wind-diesel power. As I mentioned earlier, TDX Power has been asked by the Alaska Energy Authority to assist with design engineering for a wind-diesel facility in Nikolski. In the past several months, many other Alaskan communities have also contacted TDX for information and assistance. We are born in the birthplace of the wind, and we welcome the wind.

*This information was last updated on 10/22/2004*

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