



State of Alaska
 Department of Labor & Workforce Development
 Division of Business Partnerships
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Denali Training Fund Quarterly Progress Report

Funds for this project are provided by the Denali Commission and managed, in partnership, by the Alaska Department of Labor and Workforce Development.

Name of Organization:	AVTEC - Alaska's Institute of Technology
Name of Project:	AVTEC Seward Wind Turbine
Reporting Period:	October 1 - December 31, 2010
Contact Names:	Mary Sutton, Business Services Administrator
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Certification: I certify that the information in this report is current, correct and true and in accordance with the terms and conditions of the agreement.

Signed by: *Ry Haddon* Dated *1/18/2011*

The performance of this grant will be based upon the success achieved in relation to the goals established and approved by the Alaska Department of Labor and Workforce Development, and will be reported in the Grantee's quarterly progress reports. Specific goals and objectives for this project are:

AVTEC will procure and install one (1) 100 kW wind turbine on the state owned AVTEC campus located in Seward, Alaska for the purpose of wind technician training. The completed project will be owned, operated and maintained by AVTEC and connected into the electrical distribution system at the school's industrial electricity facility.

GOALS/OBJECTIVES ACCOMPLISHED TO DATE:

The following measures will be used to evaluate project outcomes.

Goal 1 Procurement, installation and connection of a 100kW wind turbine at AVTEC's industrial electricity facility.

Objective 1.1

Procure one (1) Northwind 100 wind turbine with 30M tower. Turbine to include all components (blade sets, tower sections and nacelle). This objective will include obtaining appropriate warranty on the procured equipment.

Objective 1.2

Contract for the supply and management of geotechnical analysis at the project site.

Objective 1.3

Contract for the supply and management of structural engineering for the wind turbine foundation.

Objective 1.4

Contract for the supply and management of any necessary permitting for the physical installation of the turbine. Permitting scope will not provide any of the necessary electrical interconnect agreements that may be required for full electrical integration.

Objective 1.5

Contract for the construction of spread foot concrete foundation per structural designs.

Objective 1.6

Contract for the installation and stand of the Northwind turbine.

Objective 1.7

Oversee the connection of the wind turbine to the distribution system at the AVTEC industrial electricity facility.

NARRATIVE OF SERVICES:

Provide a brief narrative of services provided this quarter by applicable Goal/Objective.

Objective 1.1: Completed prior to 10.1.2010

Objective 1.2: Completed prior to 10.1.2010

Objective 1.3: Completed prior to 10.1.2010

Objective 1.4: The Seward City Council added use of wind turbines to permitted uses under Planning and Zoning Codes, and issued a building permit for the wind turbine foundation (attached).

Objective 1.5: The contractor (STG) began excavation of the foundation site in mid-October 2010, and poured the concrete foundation on November 2.

Objective 1.6: Installation was completed and the Northwind 100 turbine was erected on December 20, 2010 (see attached photo).

Objective 1.7: Over the next two months, AVTEC will work with STG to connect the wind turbine with AVTEC's electrical systems, using switch gear previously installed by the Alaska Energy Authority.

Provide a narrative of the activities in the curricula development:

Kent Berklund, Department Head, Dan Logan, Industrial Electricity Instructor and Peyton Sparks, Power Generation Instructor continue to develop curriculum for the first class of students.

PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD:

Describe the grant activities you expect to complete during the next quarter.

- Completing the intertie connection between the wind turbine and AVTEC's power generation plant.
- Hiring an instructor for the Wind Technician Training and completing curriculum development.
- Identifying a safety training class for climbing the tower.
- Enrolling the first class of students recruited by the Alaska Energy Authority and Alaska Village Electrical Cooperative, and beginning the training by March 28, 2011.

Please identify any problems or changes that will affect the budget, scope or timeline of the project. What are the reasons for any difficulties or delays? Are you within your budget? If not, what is the cause? What is the solution? How can we help?

The experienced instructor who had been hired for the Wind Technician Training program changed his mind and withdrew his acceptance of the position, so AVTEC must re-open the recruiting process for that position. In the meantime, current staff members will continue to develop curriculum. If necessary, Department Head Kent Berklund and instructors Dan Logan and Peyton Sparks will share instructional duties for the first class until the new instructor is on board.

The providers who offer training in safely climbing the turbine tower did not have any classes scheduled this winter for having our staff climb-certified, so AVTEC may need to hire a contractor to train in tower climbing safety and certification if necessary. The new rock-climbing wall, installed in the Student Services Center gym, will be utilized to introduce students to rope and harness use.