

Statewide Hydrokinetic

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| Grantees | University of Alaska Anchorage (Local Government) |
| Technology Type | OCEAN/RIVER |
| Region | Statewide |
| AEDG Project Code | 10088 |

REF Grants Received

| Round | App | Grant Title | Grant # | AEA Project # | Phase | Start Date | End Date | Status |
|-------|-----|--|---------|---------------|-------------|------------|----------|--------|
| 1 | 88 | Statewide Hydrokinetic Feasibility Study | 2195442 | 407054 | Feasibility | 8/20/08 | 6/30/14 | Active |

Grant 2195442: Statewide Hydrokinetic Feasibility Study

Project Scope: The project will conduct a resource assessment of hydrokinetic energy potential for 29 sites in rural Alaska by collecting and analyzing velocity and bathymetric data. The University will work with various entities with well-established working relationships in rural Alaska to assist with local logistics. Following site selection, student research assistants will be trained in hydrographic surveying and velocity measurement prior to conducting survey work on the selected river sites to obtain bathymetric and current distribution data. Data from the United States Geological Survey (USGS) gauging stations will also be used to estimate long-term hydrologic conditions at the selected rural sites. The long-term velocity/depth distribution data obtained will be used to determine the hydrokinetic energy available for power generation.

Project Status: In the summers of 2009 and 2010, the project, led by the University of Alaska Anchorage, performed field assessments of approximately 25 remote villages along Alaskas rivers. In the summer of 2011, field work was conducted at 4 sites on the Yukon River: Rampart, Stevens Village, Beaver, and Tanana. The field work involved collecting data on water velocity, elevation, and bathymetry/topography. The data collected has been processed and analyzed to determine the potential hydrokinetic power at each of villages during the open-water period and the potential sedimentation changes due to the effects of the turbines. A final overall project report has been complete along with individual site reports for each surveyed location.

| As of Nov. 30, 2013 | Budget | Expenditures |
|----------------------------|---------------------|---------------------|
| Renewable Energy Funding | \$563,101.47 | \$563,101.47 |
| Other State Funding | \$0.00 | \$0.00 |
| Total State | \$563,101.47 | \$563,101.47 |
| Required Local Match | \$0.00 | \$0.00 |
| Federal Grant Funding | \$0.00 | \$0.00 |
| Total Project Costs | \$563,101.47 | \$563,101.47 |