



Financial Assistance Award

DENALI COMMISSION
 510 "L" Street, Suite 410
 Anchorage, Alaska 99501
 (907) 271-1414 (phone)
 (907) 271-1415 (fax)
 www.denali.gov

Project Number 356-07

Project Title Intertie Studies and Transmission Development

Performance Period June 1, 2007 thru December 31, 2008

Authorizing Resolution FY07 Work Plan – Energy Base

Recipient Organization & Address
 Alaska Village Electric Cooperative, Inc.
 4831 Eagle Street
 Anchorage, AK 99503
 Phone: (907) 561-1818
 Fax: (907) 562-4086

Authority
 112 Stat 1854

CFDA Number
 90.100

Denali Commission Finance Officer Certification

JRP

Recipient DUNS # 04-459-7615 **TIN#** 92-0035763

Cost Share Distribution Table

Accounting Code	Denali Commission	Other Contributors	Total
95670000	\$1,210,000.00		\$1,210,000.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
Total	\$1,210,000.00	\$0.00	\$1,210,000.00

This Financial Assistance Award approved by the Federal Co-Chair of the Denali Commission is issued in duplicate and constitutes an obligation of federal funding. By signing the two documents, the Recipient agrees to comply with the Award provisions indicated below and attached. Upon acceptance by the Recipient, one of the signed Award documents shall be returned to the Federal Co-Chair of the Denali Commission and the Recipient shall retain the other document. If not signed and returned without modification by the Recipient within 30 days of receipt, the Federal Co-Chair may unilaterally terminate this Award.

- Special Award Conditions and Attachments
- Line Item Budget
- OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations
<http://www.whitehouse.gov/omb/circulars/a133/a133.html>

Administrative Requirements (check one)

- OMB Circular A-102, Grants and Cooperative Agreements with State and Local Governments
<http://www.whitehouse.gov/omb/circulars/a102/a102.html>
- 2 CFR Part 215, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations (OMB Circular A-110)
http://www.access.gpo.gov/nara/cfr/waisidx_05/2cfr215_05.html

Cost Principles (check one)

- OMB Circular A-87, Cost Principles for State, Local and Indian Tribal Governments
www.whitehouse.gov/omb/circulars/a087/a087-all.html
- OMB Circular A-122, Cost Principles for Nonprofit Organizations
www.whitehouse.gov/omb/circulars/a122/a122.html
- OMB Circular A-21, Cost Principles for Educational Institutions
<http://www.whitehouse.gov/omb/circulars/a021/a021.html>
- 48 CFR 31.2, Contracts with Commercial Organizations

Signature of Authorized Official - Denali Commission
George J. Canelos

Typed Name and Title
 George J. Canelos, Federal Co-Chair

Date
 9/10/07

Signature of Authorized Official - Alaska Village Electric Cooperative
Meera Kohler

Typed Name and Title
 Meera Kohler, President & CEO

Date
 9/17/07

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
Meera Kohler 		President and CEO	
APPLICANT ORGANIZATION		DATE SUBMITTED	
Alaska Village Electric Cooperative		Award 356-07	9/17/07

*Award Conditions to the Financial Assistance Award
Between the Denali Commission and Alaska Village
Electric Cooperative (AVEC)
For Intertie Studies and Transmission Development
Award No. 356-07
September 2007*

1. Scope of Work

Background: The majority of feasibility, development, and concept design for Alaska's rural power systems and bulk fuel upgrades have been done on a village by village basis. In many cases villages are so far apart that economies of scale for consolidation are lacking. However some villages which are close together may now warrant a revised approach. This is consistent with the Denali Commission's Investment Policy in evaluating whether the needs of communities in close proximity to one another can be effectively served by a single facility.

With rising costs for fuel, and escalating prices for materials for fuel tanks, generators, and buildings, there is increasing merit to considering consolidation of power generation and interconnection of selected villages. In addition, some sites in one village may have access, geotechnical, space, or ownership challenges that deter a project and are not present in an adjacent village. AVEC has experienced increased efficiency, improved feasibility of renewable generation such as wind, improved availability of recovered heat, a reduction in the number of fuel deliveries and a reduction in the number of engine running hours and associated expenses for lubricants and engine overhauls when it has connected two villages previously served by separate power plants.

Several intertie prospects have evolved after conventional single village Conceptual Designs (CDRs) have been completed. The supplemental work required in selecting and permitting the route of the line and prime and standby generation and fuel storage sites required additional time and resources to develop. Amendments to the original CDRs were required in order to describe and estimate the revised project. Intertie projects currently under construction or development based on this process are Toksook-Nightmute, Brevig Mission-Teller and Stebbins-St. Michael.

One of the barriers to interties between communities has been the cost of construction. Many adjacent communities have no road access between them, and soil conditions such as muskeg and permafrost are challenging in much of Alaska. If the costs could be reduced transmission lines could serve more villages. High Voltage Direct Current transmission using a single cable holds the potential to meet this need. It is used in extremely large systems (>1000mW) in many parts of the world, but has not been scaled to village-sized projects. If it were successfully adapted to smaller loads it has the potential to halve the cost of transmission lines by reducing material cost, increasing spans and reducing weight and concomitant foundation design

This award will be used for two efforts, as described below.

Project Number	Project Description	Funding
73A	Intertie Studies (Statewide)	\$510,000.00
73B	HVDC Transmission Development	\$700,000.00
	Total funding	\$1,210,000.00

Project 73A: AVEC will use this funding to integrate consideration of intertie options into project planning through an enhanced CDR process that would cover several prospective villages. Through this process the potential routing of interties, land ownership, siting of consolidated generation and fuel facilities and siting of standby generation will be considered early on in the project development process. Geotechnical, environmental, and permitting issues can also be addressed early on and assessed for their impact on schedule and cost and overall feasibility. Prospective intertie and generation consolidation candidates to be addressed with this funding include: Emmonak-Alakanuk, Pilot Station-St. Mary's, St. Mary's-Mt. Village, Togiak-Twin Hills, and New Stuyahok-Ekwok.

Project 73B: AVEC will use this funding to pursue economic and operational feasibility analysis and preliminary engineering for a direct current transmission connection between Mountain Village and St. Mary's, Alaska. The initial design and engineering studies required to evaluate the potential of this HVDC transmission for village-scale projects, includes building and testing a prototype of the converter. Individual components of these studies are defined below. AVEC will be responsible for coordinating the schedules and developing secondary milestone targets for these work efforts

Phase I HVDC Project - Preliminary Design & Feasibility Secondary Milestones

Project Reporting Milestones

1. Design Basis Report for transmission and converter systems
2. Draft Phase I Design Report
3. Final Phase I Design Report

Transmission System Milestones

1. Phase I design of grounding systems
2. Phase I design of foundation systems
3. Phase I design of transmission structures
4. Phase I design of cables
5. Construction methodology and equipment

Converter System Milestones

1. Preliminary converter design
2. Computer model and prototype design
3. Construction of prototype
4. Prototype testing

5. Final converter design

AVEC may make subgrants to pursue these transmission and intertie studies; however AVEC remains responsible for the management and control of the projects within the available funding and for subsequent reporting on progress. Any study which is determined not to be viable will be terminated, and any funds remaining will be returned to the Commission.

All Commission funding is intended for use for the scope of work identified in the Award document only. Any balance of funds remaining after the full scope of work has been completed will be returned to the Denali Commission.

2. Milestones

The following milestones are identified as the major steps to be completed as part of the projects. "Planned" dates for the first milestones are included here. As part of each progress report, recipients shall update the progress toward meeting these milestones (see section 7, Reporting).

Project 73A Intertie Studies:

Milestone	Planned		Actual		Units	Total Cost At Completion
	Start Date	End Date	Start Date	End Date		
In Progress	06/01/07	12/31/08			0	\$0.00
Project Close-out	01/01/09	03/30/09			0	\$0.00

Project 73B HVDC Transmission:

Milestone	Planned		Actual		Units	Total Cost At Completion
	Start Date	End Date	Start Date	End Date		
In Progress	10/01/07	08/31/08			0	\$0.00
Project Close-out	09/01/08	12/31/08			0	\$0.00

3. Award Performance Period

The Award performance period is June 1, 2007 through December 31, 2008. This is the period during which Award recipients can incur obligations or costs against this Award.

4. Direct and Indirect Costs

The cost principles of OMB Circular A-122 are applicable to this award. Indirect costs are not allowable for financial assistance under this agreement. However, indirect costs may be recognized for purposes of quantifying AVEC's financial contribution. Please

refer to the cost principles regulations for specific details on other allowable charges under this Award.

5. Budget and Program Revisions

The Administrative Circular, 2 CFR Part 215 (formerly OMB A-110), applies to this Award. Please refer to the Administrative Circular for specific details on revision to this Award. The Administrative Circular requires that AVEC will inform the Commission in writing (e-mail, letter, or report) at the earliest possible date of any unanticipated project cost overrun, project schedule delays, or changes in the project scope of changed site conditions.

6. Payments

Payments under this award will be made through the U.S. Department of Treasury's Automated Standard Application for Payment (ASAP) system. The ASAP system is the Denali Commission's mechanism for requesting and delivering Federal funds to financial assistance award recipients. AVEC must be registered with the ASAP program in order to make draw downs. Please contact the Commission's Finance Manager at (907) 271-1414 for further information about registering with the ASAP program. Payments shall be made in accordance with 2 CFR Part 215 (formerly OMB A-110). **No interest will be accrued on these funds.**

7. Reporting

Three forms of project reporting are required under this Award, listed below. AVEC shall submit reports using the Denali Commission's on-line Project Database System, available at www.denali.gov. If there are technical limitations which may prevent the recipient from meeting this requirement, please contact the Program Manager listed in this agreement.

- a. **Progress Reports** shall be submitted on a quarterly basis. The first reporting period is June 1, 2007 through September 30, 2007 and quarterly thereafter. Reports are due within 30 days of the end of the reporting period. Progress reports shall include the following:
 - i. Total project funding, including both Denali Commission funding and other project funding sources.
 - ii. The total project expenditures for the project as of the end of the reporting period, including both Denali Commission and Other funding sources.
 - iii. Updated schedule and milestone information as identified in the Scope of Work.
 - iv. Narrative summary of the project status and accomplishments to date, any problems, overruns and delays, including any type of litigation related to the project, and address the following questions: is the project on schedule, is the

- project on budget, and what actions are planned to address any project problems.
- v. For minor repair and renovation projects or other non-construction projects, dated pictures should be provided of before and after, or photos that are representative of the funded activity, to the extent possible. Photos shall be provided in a digital format as part of the on-line report. A short description of the activity and names of those in the photos shall also be provided
- b. **Standard Form 269A Financial Status Report – Short Form (SF269A)** shall be submitted on a quarterly basis via fax, e-mail or mail. As with the Progress Reports, the SF269A is due within 30 days of the end of the quarter and a final SF269A is due within 90 days of the end of the Award Performance Period. Please note the following:
- i. This report cannot yet be submitted through the Denali Commission On-line Project Database and therefore must be submitted via fax, e-mail or mail.
 - ii. This form is available on the Internet at <http://www.whitehouse.gov/omb/grants/sf269a.pdf>. A link to this site is also available on the Commission's website, www.denali.gov, under the "Finance" section. A Guide to Completing the SF269A can also be found on the Denali Commission's website under the "Finance" section.
 - iii. The SF269A may be filled out electronically using the above link. However, the completed SF269A must be printed and signed, and then the completed SF269A must be submitted to the Denali Commission via mail, fax or as a PDF attachment to an e-mail to finance@denali.gov.
 - iv. If you have multiple projects under a single Financial Assistance Award, the SF269A is required ONLY for the award as a whole, not for the individual projects.
- c. **Federal Single Audits** shall be submitted annually, when required. In accordance with OMB Circular A-133, which requires [subpart 200] "Non-Federal entities that expend \$500,000 or more in a year in Federal awards shall have a single or program-specific audit conducted for that year in accordance with the provisions of this part [subpart 205]. The determination of when an award is expended should be based on when the activity related to the award occurs."

Recipients shall also submit single audits to the Federal Clearinghouse as designated by OMB. Information can be found on the following web-site:
<http://harvester.census.gov/sac/>

8. **Project Close-Out**

The project close-out report shall be completed within 90 days of the end of the Award performance period or within 90 days of the completion of the project, whichever is

earlier. Recipients must also draw down any remaining funds for expenditures incurred under this award during this 90-day period.

The project close-out report shall be submitted on-line through the Denali Commission's on-line Project Database System, available at www.denali.gov. The project close out will require the recipient to submit the following information:

- a. Final data for each item listed in paragraph 7(a) "Progress Reports".
- b. Final project expenditures itemized by the following categories: planning & design; materials & equipment; freight; labor; project administration/overhead; and other expenses.
- c. Acknowledgement of support: For all non-construction projects, the Award recipient shall include an acknowledgement of the Government's support for the project(s) developed under this Award. The format for acknowledgement of the Government's support for non-construction awards will vary with each award and must be agreed upon between the Award recipient and the Denali Commission Project Manager. For reports or studies resulting from this Award, the Denali Commission shall be recognized for its financial support of the project. The actual wording of such acknowledgement will be coordinated with the Commission as needed. Costs associated with this requirement shall be paid out of the project funding received by the Award recipient from the Denali Commission.

9. Public Policy Laws and Assurances

Award Recipients are required to comply with the public policy laws and assurances on Standard Form SF 424b (non-construction projects). This form must also be signed by a certifying official of the organization. Some of the laws are highlighted below for your reference.

No portion of this award may be used for lobbying or propaganda purposes as prohibited by 18 U.S.C. Section 1913 or Section 607(a) of Public Law 96-74.

Project level environmental reviews in accordance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) are required for each project undertaken with Denali Commission funds.

10. Non-Compliance with Award Conditions

Recipients not in compliance with the terms and conditions of this Financial Assistance Award will be notified by the Denali Commission. The Denali Commission will work with the recipient to identify the steps necessary to bring them back into compliance, and will establish an appropriate time frame for the corrections to be made. If the corrections have not been made by the deadline, the Denali Commission reserves the right to either suspend or unilaterally terminate the Financial Assistance Award for non-performance.

11. Program Manager, Financial Manager & Other Contact Information

Denali Commission	Alaska Village Electric Cooperative
Ms. Kathleen Prentki Program Manager 510 "L" Street, Suite 410 Anchorage, AK 99501 Phone (907) 271-1414 Fax (907) 271-1415 E-mail: kprentki@denali.gov	Ms. Meera Kohler Project Manager 4831 Eagle Street Anchorage, AK 99503 Phone (907) 561-1818 Fax (907) 562-4086 E-mail: mkohler@avec.org
Ms. Betty Sorensen Grants Administrator 510 "L" Street, Suite 410 Anchorage, AK 99501 Phone (907) 271-3415 Fax (907) 271-1415 E-mail: bsorensen@denali.gov	Ms. Meera Kohler Financial Contact 4831 Eagle Street Anchorage, AK 99503 Phone (907) 561-1818 Fax (907) 562-4086 E-mail: mkohler@avec.org

12. Denali Commission Policies and Other Requirements

To the maximum extent practicable, considering applicable laws, Funding Recipients shall accomplish the project contemplated by the Award using local Alaska firms and labor.