

## QUARTERLY REPORT

**PROJECT:** HVDC TRANSMISSION SYSTEM FOR RURAL ALASKAN APPLICATIONS, PHASE II – PROTOTYPING AND TESTING

**UAF CONTRACT:** UAF 10-0055

**CONTRACTOR:** POLARCONSULT ALASKA, INC.

**REPORTING PERIOD:** JANUARY 1, 2010 – MARCH 31, 2010

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### PROJECT OVERVIEW

The project is on schedule and on budget. No problems have been encountered.

### PROJECT SCHEDULE AND MILESTONES

No change from the schedule and milestones in the project contract.

### SUMMARY OF PROJECT ACTIVITIES, STATUS, ACCOMPLISHMENTS

#### *CURRENT PERIOD*

- Coordinated development of scope of work and schedule with principal project subcontractor Princeton Power Systems, Inc. Coordinated disclosure of intellectual property between subcontractor and ACEP.
- Assisted ACEP in initiating contact with candidate members of Stakeholders' Advisory Group.
- Gave a presentation on the project to the Southeast Conference on March 2<sup>nd</sup>.
- Began coordination and planning for first Stakeholders' Advisory Group Meeting in Fairbanks, tentatively scheduled for April 29<sup>th</sup>.
- Gathered and began analysis of data to evaluate typical electrical loads in remote Alaska communities to guide sizing and development of HVDC system.
- Initiated contact with in-state communications utilities regarding potential of integrating future HVDC and fiber optic cable networks. Reviewed in-state fiber optic cable laying methods and costs for applicability to HVDC cables.

#### *NEXT PERIOD*

- Issue design document on converter and HVDC system sizing for remote Alaska interties.
- Hold meeting with Stakeholders' Advisory Group in Fairbanks. Tentatively scheduled for April 27<sup>th</sup> in conjunction with the Rural Energy Conference.
- Let subcontract to Princeton Power Systems, Inc. for converter development activities.
  - Draft converter standards and specifications.
  - Begin converter design and development.
- Locate a cold regions test site for field testing of transmission system components
- Work on conceptual designs of overhead transmission system (foundations, anchors, poles, and hardware)