

Denali Commission Emerging Energy Technology Grant
Alaska SeaLife Center Seawater Heat Pump Project
UAF 10-0069
Quarterly Report ending June 30, 2010

During the quarter ending June 30, 2010 a Professional Services Contract was executed on May 21, 2010 between the University of Alaska Fairbanks and the Seward Association for the Advancement of Marine Sciences, dba, Alaska SeaLife Center followed by UAF Purchase Order No. FP02826 with an effective date of June 6, 2010. Following receipt of the Contract and Purchase Order, the Project schedule was modified as follows:

ASLC HEAT PUMP PROJECT TIMELINE

Revised July 1, 2010

June 6, 2010 – July 7, 2010: Procure and contract mechanical/electrical engineering services

July 8 – November 15, 2010: Complete design (Drawings, Specifications, Final Cost Estimate)

November 16 – December 15, 2010: Procure and contract mechanical/electrical contractor

November 16, 2010 – April 30, 2011: Equipment procurement (including instrumentation), installation and commissioning, and final reporting:

- a. Shop drawing/manufacture submittals and review – 3 weeks
- b. Manufacture and ship heat pumps, heat exchangers and instrumentation to Seattle – 8 weeks
- c. Ship heat exchangers, heat pumps, instrumentation from Seattle to Anchorage to Seward – 2 weeks
- d. Installation of all mechanical, electrical and instrumentation components – 6 weeks
- e. Start-up and commissioning – 2 weeks

May 1, 2011 – June 30, 2012: Project monitoring and reporting to ACEP

EXHIBIT TIMELINE

November 1 – February 28, 2011: Exhibit design and procurement

March 1- April 15, 2011: Exhibit fabrication

April 15 - 30, 2011: Exhibit installation and evaluation

YourCleanEnergy, LLC submitted its written design proposal on June 29, 2010 and a contract has been negotiated for engaging the design and construction management services. It is anticipated that the contract will be signed on or before July 7, 2010.

The second heat pump has been funded in Round 3 of the Alaska Renewable Energy Fund was approved by Governor Parnell on June 3, 2010. It is anticipated that the AREF award documents for the second heat pump will be received by the City of Seward on or before September 1, 2001. The total project budget is as follows:

	Phase 0	Phase 1 Heat Pump #1	Phase 2 Heat Pump #2	Total Development Cost
Feasibility Study	\$ 9,280	\$ -	\$ -	\$ 9,280
Contracted Construction	\$ -	\$ 304,800	\$ 204,700	\$ 509,500
Final Design and Procurement Services	\$ -	\$ 45,720	\$ 30,705	\$ 76,425
Construction Inspection Services	\$ -	\$ 15,240	\$ 10,235	\$ 25,475
Project Management and Consultation	\$ -	\$ 12,400	\$ 12,400	\$ 24,800
Contingency	\$ -	\$ 48,560	\$ 28,540	\$ 77,100
Total Project Cost	\$ 9,280	\$ 426,720	\$ 286,580	\$ 722,580

The following is the proposed schedule for executing the design work. The understanding is that ASLC will wait until the Final Design is completed before procuring and/or installing any equipment specified in the system design. Completing the Final Design by November, 2010 may allow opportunity for ASLC to procure and install equipment for the sea water heat pump demonstration project by end of March, 2011. Mid-March through mid-May is the time of year when sea water temperatures are the lowest and the system can be tested in the most challenging operating conditions when chiller efficiency is lowest.

Phase	Description	YCE Presents to ASLC	ASLC Comments By
Phase I	Project Scoping Meeting At ASLC	July 8, 2010	July 15, 2010
Phase I	Design Narrative & Cost Estimate	July 29, 2010	Aug 5, 2010
Phase II	35% Drawings, Specs & Cost Estimate	August 27, 2010	Sept 3, 2010
Phase II	65% Drawings, Specs, & Cost Estimate	Sept 30, 2010	Oct 6, 2010
Phase IV	Final Drawings, Specs, & Cost Estimate	October 28, 2010	Nov 4, 2010

Project personnel assigned to the design phase are as follows:

Darryl Schaefermeyer, ASLC Operations Manager	Project Manager
John Underwood, ASLC Facilities and Life Support Supervisor	Project Engineer
Andy Baker, P.E., (www.yourcleanenergy.us)	Consulting Engineer
Lee Bolling, EIT, (www.yourcleanenergy.us)	Engineering Technician
John Faschan, P.E. (www.edc-alaska.com)	Electrical Engineer
Kevin Hansen, P.E. (www.edc-alaska.com)	Mechanical Engineer

The project is on schedule and budget to meet the Contract completion date of January 15, 2012.

Attachments: (1) YCE Professional Services Agreement (unsigned)