

**Alaska Energy Authority & Denali Commission
Emerging Energy Technology Fund Progress Report**

Grant Number: 74310049

Project Title: Small Community Self Regulating Grid – Tuntutuliak

Grantee: Intelligent Energy Systems

Reporting Period: October 1, 2013 to December 31, 2013

Deliverables Submitted: ETS Test Unit report from UAF/INE complete. Milestones 2 through 6 and 8 in various stages of progress.

Budget: Project remains on budget and completable as proposed. No reimbursements required at this time.

Schedule Status: Revised milestones and budget totals based on continued project development to be submitted for review and approval of AEA. Revisions do not increase funding required for project completion and should not delay project completion beyond grant life.

Percent Complete: 35% project completion overall.

Miles tone	Task	Deliverables	Progress Status
1	Purchase components for controller upgrades and software license		100% Complete
2	Complete controller programming for prototype		75% Complete
3	Test single ETS unit controller for frequency response at ACEP test facility	ACEP test results	100% complete. Final report from UAF/INE complete
4	Develop system instrumentation plan	Instrumentation plan	90% complete
5	Baseline data collection and system modeling	System one line, estimated installation costs	50% complete
6	Economic analysis on stove consumption	Economic analysis	In progress with ISER
7	Purchase 3-phase load balancing unit (boiler)		
8	Purchase remaining advanced controller components and instrumentation		In progress
9	Install instrumentation, ETS controller upgrades, and phase-balancing boiler.	Commissioning report installations	
10	Monitor system in centralized and distributed frequency controls modes and optimize system efficiency		

	11	Data evaluation and draft project report	Draft project report	
	12	Final project report	Final report	

Work Progress: ETS single unit testing under the supervision of Richard Wies of UAF completed. Report submitted. Instrumentation plan under final review for submittal to AEA.

Future Work: Installation of data collection materials and Installation of monitoring equipment, baseline power quality studies and implementation of data collection and reporting system is proposed for completion by March 31.

Project remains on budget with no significant problems foreseen. No freight delivery issues due to barge and transportation schedules.