



FORMAL PROJECT APPROVAL

Name of Project: UAF Energy Technology Facility

Location of Project: UAF Fairbanks Campus

Project Number: 2009093 ETWP

Date: April 9, 2009

Project Manager: Cameron Wohlford, Sr. Project Manager

SUPPORTING DOCUMENTS

Appendix A: UAF Energy Technology Facility Space Program

Appendix B: UAF Energy Technology Facility Project Budget

Appendix C: UAF Energy Technology Facility Site Plan

Appendix D: UAF Energy Technology Facility Preliminary Business Plan

UAF Energy Technology Building

APPENDIX A

Alaska Center for Energy and Power
Gwen Holdmann-Organization Director

	No.	Occ.	GSF	Total
Research (RS)				
Storage - fuels (unheated)	1		500	500
Storage - equipment	1		500	500
Lab - individual research	7	1	500	3500
Lab-General applications	1		1800	1800
Lab - Hydrokinetics	1		600	600
Lab - fuel analysis	1		600	600
Lab - instrumentation	1		600	600
Lab - Coal Processing	1		1250	1250 reassigned from MIRL
Lab - Oil and Gas	1		600	600
Lab - New Technologies	1		600	600

subtotal **10550** assignable GSF
17583 GSF at 60% efficiency

Lab Modules (LM)

Module - Diesel	1		1200	1200
Module - Wind/Diesel	1		1200	1200
Module - Battery research	1		1200	1200
Module - Biomass	1		1200	1200
subtotal				4800

Academic Support Space (OF)

Office - graduate student pods	3	10	420	1260
subtotal				1260

Research Support Space (OF)

Office - permanent faculty	15	1	135	2025
Office - transient faculty	5	1	135	675
Office - staff	1	3	300	300
Office - technical staff	1	3	300	300
Shop/receiving	1		1200	1200
Conf. Room - large	1	16	500	500
Conf. Room - small	1	8	250	250
Server Room	1		100	100
Storage	1		200	200
Lobby	1		700	700
subtotal				6250 assignable GSF

8929 GSF at 70% efficiency

UAF FS/ Design and Construction
Jonathan Shambare - Director

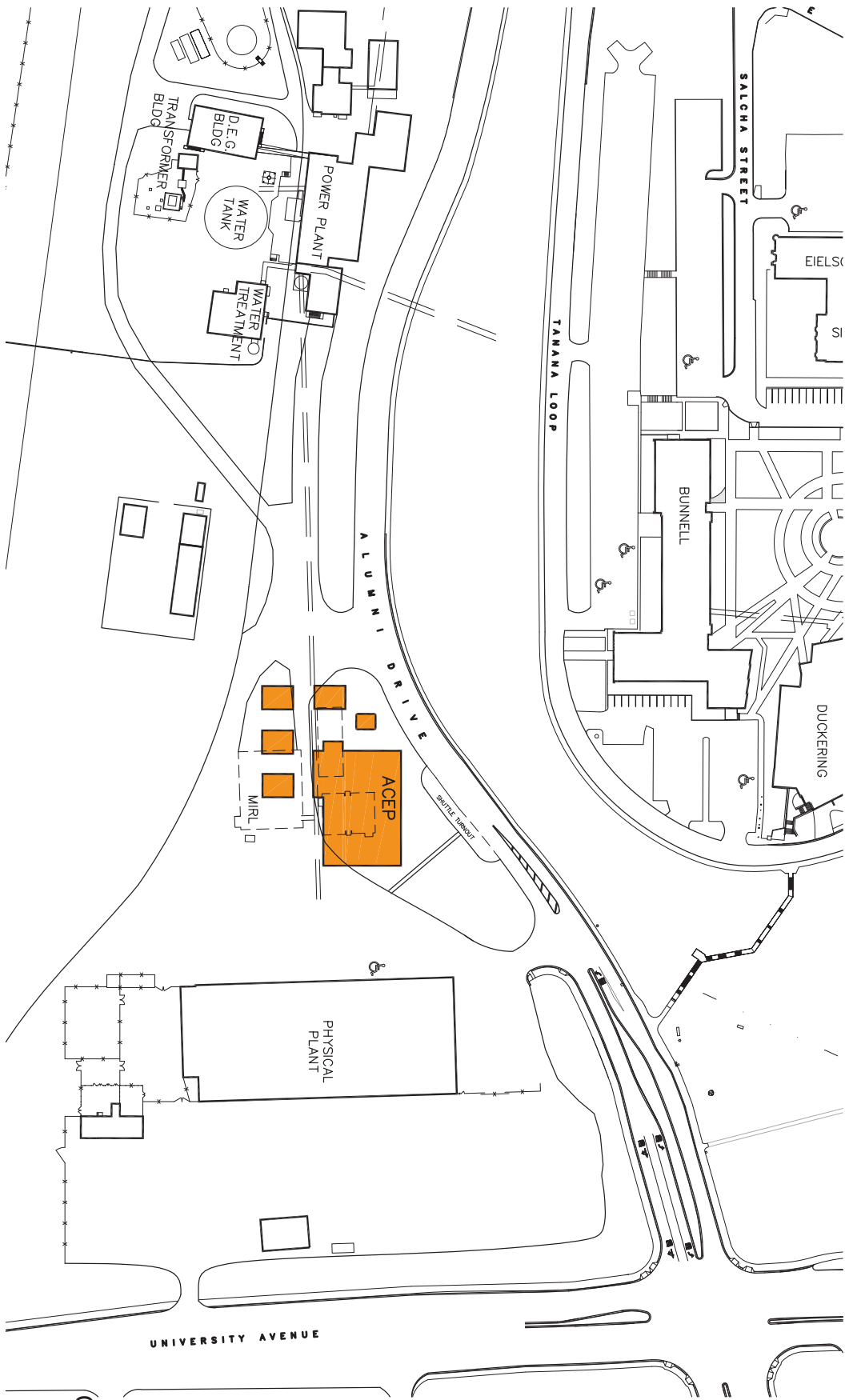
Design and Construction (OF)

Office - Director	1	1	180	180
Office - Facilities Engineers Level 5-6	10	1	135	1350
Office - Facilities Engineers Level 1-4	10	1	120	1200
Office - Administrative staff	1	4	500	500
Office - Fiscal Technical staff	1	3	400	400
Office - Drafting	1	3	600	600
Office Service /w Receptionist Space	1	2	200	200
Engineering Work Room	1		400	400
Active Projects File Room	1		200	200
Conf. Room - large	1	20	600	600
Conf. Room - small	1	6	200	200
Server Room	1		100	100
Long Term Archive Storage (basement)	1		800	800
Lobby	1		300	300
subtotal				7030 assignable GSF

10043 GSF at 70% efficiency

total	29890 OF+RS+LM+DDC assignable
total	42615 GSF at 70% efficiency

UNIVERSITY OF ALASKA			
Project Name: UAF Energy Technology Building		CM@Risk	
MAU: UAF			
Building:	New	Date:	2-Mar-09
Campus:	Fairbanks	Prepared By:	Wohlford
Project Number:	2009093 ETWP	Account No.:	TBD
Total GSF Affected by Project:		42,615	
PROJECT BUDGET			Original
A. Professional Services			
Consultant Basic Services			\$2,700,000
Consultant Extra Services			\$25,000
Site Survey			\$50,000
Soils Engineering			\$150,000
Testing			\$90,000
Plan Review / Permits			\$185,000
Other			\$0
Professional Services Subtotal			\$3,200,000
B. Construction			
General Contractor			\$20,000,000
Other Contractors (Parking Lots, Bldg Relocation)			\$1,800,000
Construction Contingency 8.3%			\$1,819,000
Art 0.5%			\$100,000
Other (Interim Space Needs)			\$100,000
Construction Subtotal			\$23,819,000
Construction Cost per GSF			\$559
C. Equipment and Furnishings			
Equipment			\$400,000
Furnishings			\$400,000
Make Ready/Move In			\$200,000
Equipment and Furnishings Subtotal			\$1,000,000
D. Administrative Costs			
Advance Planning			\$0
Misc. Expenses			\$185,000
Project Management 8.5%			\$2,396,000
Administrative Costs Subtotal			\$2,581,000
E. Total Project Cost			\$30,600,000
Total Project Cost per GSF			\$718
F. Total Cost Rounded			\$30,600,000



ACEP BUILDING
1/128" = 1'-0"

SITE PLAN
Jan. 16, 2009



ACEP
Alaska Center for Energy and Power

4/9/09

ACEP BUILDING
CONCEPT STUDY

BDS

Bezek Durst Seiser, Inc.
3330 C Street, Suite 200
Anchorage, Alaska 99503
P.907.562.6076 F.907.562.6635

Appendix D

Energy Technology Facility

Draft Business Plan

Section			FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
F&A Trend w/ Additional Facilities												
Grant & Contract Restricted Research Expenditures			\$107,847,000	\$111,082,410	\$114,414,882	\$117,847,329	\$121,382,749	\$125,024,231	\$128,774,958	\$132,638,207	\$136,617,353	\$140,715,874
Total F&A (Account Code 7811)			26,098,974	26,659,778	27,459,572	28,047,664	28,889,094	29,755,767	30,648,440	31,567,893	32,514,930	33,490,378
Effective Rate			24.2%	24.0%	24.0%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%
Net Increase from FY09			0	560,804	1,360,598	1,948,690	2,790,120	3,656,793	4,549,466	5,468,919	6,415,956	7,391,404
Energy Facility - Construction Costs	Capital	Debt										
University		\$15,300,000				\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000
State	\$15,300,000					0	0	0	0	0	0	0
Sub-Total: Debt Service on New Debt Financing						\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000
Debt Service Financing												
DD&C Current Lease Funds						\$176,645	\$181,944	\$187,403	\$193,025	\$198,816	\$204,780	\$210,923
INE ICR on Research Growth						480,420	494,833	509,678	524,968	540,717	556,938	573,647
Other Research Growth Contribution						566,935	547,223	526,920	506,007	484,468	462,282	439,430
Percentage of Overall F&A						2.0%	1.9%	1.8%	1.7%	1.5%	1.4%	1.3%
Total University Debt Service Funding						\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000	\$1,224,000
Energy Facility Operations - M&O Costs												
Utilities						\$234,766	\$241,809	\$249,063	\$256,535	\$264,231	\$272,158	\$280,323
Custodial						116,689	120,190	123,795	127,509	131,334	135,275	139,333
Trash/Grounds						20,374	20,985	21,615	22,263	22,931	23,619	24,328
Total M&O Costs						\$371,829	\$382,984	\$394,473	\$406,308	\$418,497	\$431,052	\$443,983
University						\$148,732	\$153,194	\$157,789	\$162,523	\$167,399	\$172,421	\$177,593
State						223,097	229,790	236,684	243,785	251,098	258,631	266,390
Total M&O Funding						\$371,829	\$382,984	\$394,473	\$406,308	\$418,497	\$431,052	\$443,983
Energy Facility - M&R Costs (1.5% Value Formula)												
Univeristy						\$36,720	\$75,643	\$116,869	\$160,500	\$206,643	\$212,843	\$219,228
State						55,080	113,465	175,303	240,750	309,965	319,264	328,842
Total M&R Funding (Annual steps over 5 years)						\$91,800	\$189,108	\$292,172	\$401,249	\$516,609	\$532,107	\$548,070
Total Funding												
University Subtotal						\$1,409,452	\$1,452,837	\$1,498,658	\$1,547,023	\$1,598,042	\$1,609,263	\$1,620,821
State Subtotal						278,177	343,255	411,987	484,534	561,063	577,895	595,232
Total Operating						\$1,687,629	\$1,796,092	\$1,910,645	\$2,031,557	\$2,159,105	\$2,187,159	\$2,216,053
Required Activity Levels												
INE Research Growth (MTDC)						\$3,400,000	\$3,502,000	\$3,607,060	\$3,715,272	\$3,826,730	\$3,941,532	\$4,059,778
Overall Campus Research Growth						\$1,203,684	\$1,161,832	\$1,118,726	\$1,074,326	\$1,028,594	\$981,490	\$932,972

Additional Notes:

Facility Value	\$30,600,000	F&A Rate through FY10	45.1%
Annual debt service per \$1 million project cost	\$80,000	F&A Rate beginning FY11	47.1%
Existing Facilities Research Growth Rate	3.0%	INE Research Growth Rate	3.0%
Overall Growth Rate	3.0%	DD&C Rent Growth Rate	3.0%