



Training Proposal for:
Electronic Interface Company, Inc.
dba Applied Engineering Inc.
Agreement Number: ET09-0426

Panel Meeting of: **January 23, 2009**

ETP Regional Office: **San Francisco Bay Area**

Analyst: R. Jackson

PROJECT PROFILE

Contract Type: **Priority/SB<100**

Industry Sector(s): **Manufacturing**
Nanotechnology
Engineering
Green Technology

Counties Served: **Santa Clara**

Repeat Contractor: **Yes** **No**

Union(s): **Yes** **No**

Priority Industry: **Yes** **No**

No. Employees in CA: **74**

No. Employees Worldwide: **74**

Turnover Rate %	Manager/Supervisor %
6%	0%

FUNDING DETAIL

Program Costs	Substantial Contribution	Total ETP Funding
\$198,900	\$0	\$198,900

In-Kind Contribution
\$100,000

TRAINING PLAN TABLE

Job No.	Job Description (by Contract Type)	Type of Training	Estimated No. of Trainees	Range of Hours		Estimated Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Priority/SB<100	Business Skills, Computer Skills, Continuous Improvement, Manufacturing Skills	85	24-200	0	\$2,340	\$14.18
				Weighted Avg: 90			

Minimum Wage by County: \$14.18 for Santa Clara County.

Health Benefits: Yes No This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: Yes No

\$1.68 per hour may be used to meet the Post-Retention Wage.

Wage Range by Occupation	
Occupation Title	Wage Range
Administrative Staff	
Technical Staff	
Production Staff	
Managers	

INTRODUCTION

In this proposal, Electronic Interface Company, Inc., doing business as Applied Engineering Inc. (AE), seeks funding for retraining as outlined below:

AE is a small business founded in 1978 that manufactures custom precision metal products for domestic and international companies in the automotive, semiconductor, chemical, and medical industries. AE tests and produces fabricated parts and assemblies to support the design and manufacture of customized orders. AE also offers information technology consulting, a range of engineering support services, and support to innovators by providing patent consulting services. The company has a single location in San Jose where the proposed training will take place for its 72 current and 13 future hires.

This is AE's third proposal for ETP funding. Past ETP training reinforced a train the trainer program and supported the company's high-performance workplace initiatives, including the implementation of aerospace certification standards. Since the last ETP Agreement, AE is broadening products and services; focusing on increasing skills in assembly, testing and quality control; and purchasing an estimated \$255,000 in new equipment that prompts the need for supplemental training. In contrast with prior years 2005-2007, AE anticipates 30% growth in profits between **2008-2010**. The growth is attributed primarily to new certifications and business activities that are driven by customer demands for products and services in hybrid automotive,

solar, and nanotechnology-based markets. Although the same types of training were included in previous Agreements, this project will not duplicate the previous training for the current employees.

AE is eligible for standard retraining under Title 22, California Code of Regulations (CCR), Section 4416(i) as an industrially-defined manufacturer. In addition, AE meets the Panel's Strategic Plan objectives as a Priority Industry in manufacturing, aerospace, and nanotechnology business activities.

PROJECT DETAILS

With ETP's support, the company plans to train its 72 current employees and 13 future hires in business skills, computer skills, continuous improvement, and manufacturing skills.

The training plan proposed is designed to assist AE to offer supplemental training related to:

1. AE's cross-training initiative. The company determined a need for cross-training in manufacturing skills to meet business objectives that include producing new products and services while simultaneously reducing waste.
2. Technical skills training for systems and processes resulting from the purchase of new equipment and software including: tracker3 Laser Tracking System, SLA7000 Solid imaging System, CRE D4000, IBF B7801, Laminar Flow C900, and CR D3100, Manufacturing Resource Planning Software, and Customer Relationship Management software.

Each trainee will receive between 24-200 hours of classroom/laboratory training from among the following areas:

Manufacturing Skills training provided to production staff will cover advanced manufacturing skills in hybrid, nanotechnology, clean room operations, and solar technology. Assembly, inspection and testing in a clean room environment for solar and nanotechnology-based training will be provided to production and technical staff. Production staff will also receive training in lean manufacturing practices.

The expected result of manufacturing skills training is increased capabilities, cost savings, cycle time reduction, and new product development. For example, in the manufacture of electronic automotive industry parts specifically, AE reports that the use of Stereolithography (SL), a proposed training topic, promises to reduce errors and waste up to 50% in some processes.

Business Skills training will enable the shift to an Original Equipment Manufacturer (OEM) supply-chain driven, cross-functional team-based environment. As a sub-tier supplier to large manufacturers, the company is shifting the culture of the organization from a departmentally linear structure to a cross-functional high performance workplace with quick turnaround capabilities. Staff across occupations will receive training in new product development in hybrid automotive and solar technologies to ensure understanding and competency in new terminology, materials management, and customer service at every level of the organization. In order to meet customer demands and remain competitive in new industries, technical staff will receive sales and marketing training related to new products and services offered by AE.

Computer Skills training on new equipment and software will enable employees to keep Applied Engineering in a competitive position by meeting customer demands for rapid responses and new products. Technical employees will receive training in Pro E Advanced

Computer-Aided Design (CAD) and production staff will receive training in advanced machine/equipment software implementation. Staff across occupations will receive training in supply chain networking software linked to the MRP System to enable real time reporting between departments and customers and to meet quick turnaround demands. Employees across occupations will receive training in MRP software to help expedite bidding, costing, inventory and materials management, and job tracking capabilities with expected reductions in bidding and production lead time. Administrative and technical staff will receive training in various areas of MRP software to improve cross-functional team integration including scheduling, planning, and customer response time.

Continuous Improvement topics will be provided company-wide to support the company's goals of remaining a high performance workplace, reducing operating costs, and improving reliability, quality, and customer satisfaction. The company is also providing high performance work team modules and topics that help AE implement an ISO 2008 certification to satisfy and maintain customers.

Green and Nanotechnology Business Operations

In response to its declining United States-based semiconductor industry business, AE reports the company is shifting its focus to solar and other nanotechnology related industries in higher demand.

AE will train production staff in molecular metrology, wafer slicing, wafer cooling, and heating. Production and Technical staff will also receive high tech production skills training related to solar products including: thin film photo-voltaic (PV) handling, PV cell handling, and solar simulation as part of the manufacturing skills training.

Commitment to Training

AE has a current training budget of \$62,000. Company provided training is limited to basic skills, new employee orientations, crisis management initiatives, and any state or federally-mandated training.

AE represents that ETP funds will not displace existing financial commitments to training. Indeed, Applied Engineering anticipates that the opportunity for enhanced training made possible by ETP funds will encourage an ongoing financial commitment in this area.

AE represents that safety training is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

Frontline Worker

The company uses several job classifications with "supervisor" or "manager" in the title, but all of the supervisors and managers are frontline workers because they are eligible for overtime and they directly produce goods or provide services related to AE's primary business. In fact, based on the nature and scope of the job duties, these employees meet the Panel's definition of frontline workers. (Title 22, CCR, Section [4400\(ee\)](#).)

RECOMMENDATION

For the reasons set forth above, staff recommends approval of this proposal.

ACTIVE PROJECTS

The following table summarizes performance by the company under an active ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees (Average)	No. Completed Training	No. Retained
ET07-0330	\$560,196	04/30/07 - 04/29/09	*173	91	**88

*This project included an initial phase of training for 85 trainees. A second phase was approved for 88 trainees. The curriculum was modified for Phase II training to include upgraded training. The contractor expects the final completion rate will be at least 81%.

**The number of trainees to be retained listed above could increase as the last available date of training, January 29, 2009 has not yet been reached.

PRIOR PROJECTS

The following table summarizes performance by the company under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned
ET07-0146	San Jose	09/25/06 to 09/24/08	\$160,512	\$160,512

DEVELOPMENT SERVICES

The company retained Sallyanne Monti in San Francisco to assist with development of this proposal for a flat fee of \$8,000.

ADMINISTRATIVE SERVICES

The company also retained Sallyanne Monti to perform administrative services in connection with this proposal for a fee not to exceed 13% of payment earned.

TRAINING VENDORS

Stack Consulting of Cupertino has been retained to provide training for a fee of \$16,000. Other trainers will be identified for ETP record-keeping purposes as they are retained by AE.

Exhibit B: Menu Curriculum**Class Lab Hours**
24-200

Trainees will receive any of the following:

BUSINESS SKILLS

- New Product Development
 - Hybrid Automotive Technology
 - Global Marketing Nanotechnology
 - Global Marketing Solar Technology
- Performance Management

COMPUTER SKILLS

- Computer-Aided Design (CAD)
- Manufacturing Resource Planning (MRP)

CONTINUOUS IMPROVEMENT SKILLS

- AS9100 Implementation Tools
- High Performance Work Teams
 - Supply Chain Management
- Statistical Process Control

MANUFACTURING SKILLS

- Advanced Manufacturing
 - Automotive Hybrid Technology
 - Clean Room Operations
 - Electrical Assembly Solar Technology
 - Precision Machining & Assembly
 - Nanotechnology Products
 - Stereolithography
- Lean Manufacturing Practices
 - 5S Practices
 - Kaizen Principles
 - Kanban Practices
- Value Stream Mapping