



Training Proposal for:
**Sacramento Area Electrical Workers Joint Apprenticeship
 and Training Trust**
Agreement Number: ET10-0258

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

ETP Regional Office: **Sacramento**

Analyst: J. Daunt

PROJECT PROFILE

Contract Type: Priority/Retrainee SET Frontline - Retrainee	Industry Sector(s): Construction
Counties Served: Sacramento, Amador, Placer, El Dorado, San Joaquin, Solano, Sutter, Colusa, Yolo, Yuba	Repeat Contractor: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No IBEW Local 340	Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Turnover Rate %	Manager/Supervisor %
≤20%	N/A

FUNDING DETAIL

Program Costs	Support Costs	Total ETP Funding
\$121,440	\$8,340	\$129,780

In-Kind Contribution
Inherent

TRAINING PLAN TABLE

Job No.	Job Description (by Contract Type)	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	SET Frontline Retrainee SB<100	Business Skills, Commercial Skills, Computer Skills	120	24-200	0	\$889	\$23.64
				Weighted Avg: 32			
2	SET-Frontline Retrainee	Business Skills, Commercial Skills, Computer Skills	30	24-200	0	\$770	\$23.64
				Weighted Avg: 40			

Minimum Wage by County: SET frontline workers average statewide hourly rate is \$23.64.

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 Maybe

Benefits vary by employer. Health, dental, and/or vision benefits may be added to a trainee’s wages in order to satisfy the ETP SET minimum hourly wage of \$23.64 statewide.

Wage Range by Occupation	
Occupation Title	Wage Range
Electrician (Journey Level)	

INTRODUCTION

In this proposal, Sacramento Area Electrical Workers Joint Apprenticeship and Training Trust (Sac JATT, or the Trust) seeks funding for retraining as outlined below.

Sac JATT is a nonprofit training organization, founded in 1941, dedicated to providing up-to-date industry skills training and to securing high-quality job opportunities for its members. Sac JATT is a joint effort of the International Brotherhood of Electrical Workers (IBEW) Local 340 and the National Electrical Contractors Association (NECA) and it is governed by a Board of Trustees comprised of four labor and four management representatives.

Sac JATT is eligible to be funded under Special Employment Training (SET) provisions of Title 22, California Code of Regulations (CCR), Section 4409(a), supporting training to improve the skills and employment security of frontline workers as defined in Title 22, CCR, Section 4400(ee), who earn at least the state average hourly wage.

Need for Training/Employer Demand

According to Sacramento JATT representatives, journey level electricians are currently faced with understanding new national building codes and green practices; following certification guidelines; using more collaborative bidding and project development practices; meeting budgets; interacting with other types of construction workers; and implementing green solutions in traditional work environments. Also, as modernization in the industry accelerates,

participating employers and property owners are increasingly demanding that electricians undergo additional training to update their skills so they can work efficiently and safely.

Sac JATT is proposing to train 150 journey level electricians in the Trust's journeyman upgrade program, including the addition of green training topics such as Solar Panel Installation and Advanced Lighting Controls. The journeyman program is intended to bring work skills and knowledge up to date to satisfy the customer demand from participating employers and property owners.

Training will take place at the Sacramento JATT's training center in Sacramento. The program will not only include courses that Sac JATT has not been able to offer before, but will also enable the training center to serve more journey level electricians than would normally be possible.

PROJECT DETAILS

This project includes two job numbers, the first (1) is for small businesses (fewer than 100 employees) and the second (2) is for large businesses (100 or more employees). All 150 of the retrainees are members of IBEW Local 340. The representatives state that the union was directly involved in the development of the curriculum and is in full support of the training for its members. The trainers are former or current members of the trade and experts in the subject matter.

Training is center-based. No production will take place during training sessions. The training will be at the journey level, as follows:

Commercial Skills training will be offered to all journey level electricians entering the program. According to the representatives, the electronics field and connected electrical trades are undergoing significant changes, as follows: A) The shift from analog to digital equipment is continuing and necessitates additional training. B) Journey level electricians increasingly work with high voltage. The potential for injury or death for themselves and bystanders is significant. A portion of the training addresses this. C) With the emergence of green technology and products, green-related training classes comprise a significant portion of the current proposal, largely as a result of the demand for energy efficient construction methods and technologies from participating employers and property owners. Solar panel installation training will be offered for the first time, as well as training in Advanced Lighting Controls. The representatives add that Sac JATT is in the process of building eight lab boards, at a cost of \$8,000 each, for the Advanced Lighting Controls class.

Business Skills courses will be offered to all electricians who enter the program. This training will provide trainees the tools to plan, organize, and manage construction projects so that they can complete them efficiently and on time. Training will also include team-building and leadership skills so electricians can lead teams in an effective and efficient manner.

Computer Skills courses will be offered to all program participants. AutoCAD training will provide trainees with the tools needed not only to read blueprints, but to modify them as needed while on the job. This portion of the curriculum includes training in software that allows electricians to manage projects, including tracking project requirements, budgets, and timelines as needed. Also included is training on software for job scheduling and planning.

Curriculum Development

Sac JATT representatives state that the training curriculum was developed by Sac JATT with input from both labor and management representatives. It was customized to address the needs of its members, participating employers, and the industry. One of the industry's driving forces among small and large employers is the increasing demand for green materials and construction methods. Building owners make this demand also. The curriculum includes training that addresses the situation.

Marketing and Employer Recruitment

Sac JATT representatives state that the Trust has identified companies that meet ETP's requirements and contacted them about participation in the ETP supported training program. Sac JATT will continue to publicize the availability of training through brochures/flyers, personal contacts, public service announcements, and presentations at labor-management meetings and industry assemblies.

Commitment to Training/Supplemental Training

The representatives state that the employers participating in this project can generally afford only informal, on-the-job training. Without ETP-support, there would be little or no training for the employees of these companies in the skills contained in the curriculum. The representatives state that the requested training supplements rather than displaces current training provided by the Trust's training center and/or by partnering companies. They add that Sac JATT is committed to ongoing training after the ETP contract is completed. The program's infrastructure and curriculum will be used in continuing future classes so that well-trained electricians will continue to contribute to the well-being of construction companies in California, and of the economy in general.

Sac JATT represents that ETP funds will not displace its existing financial commitment to training of participating employers. Indeed, Sac JATT anticipates that the opportunity for enhanced training made possible by ETP funds will encourage an ongoing financial commitment in this area.

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

Special Employment Training (SET)

Under SET, the participating employer is not required to demonstrate out-of-state competition. To qualify under SET, trainees must be earning at least the statewide average hourly wage at the end of the retention period. (California Unemployment Insurance Code, Section 10214.5; Title 22, CCR, Section 4409(a).)

Retention

For this project the retention will be 500 hours within 150 days with up to three employers, due to the nature of employment in the construction industry.

RECOMMENDATION

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

ACTIVE PROJECTS

This will be the fourth ETP project with Sac JATT. The following table summarizes performance by the contractor under an active ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees (Average)	No. Completed Training	No. Estimated to be Retained
ET08-0397	\$213,600	3/3/2008-3/2/2010	300	36	137*

Comment: * This estimate may change subject to changing economic conditions. The contractor's representatives state that the most significant barrier to enrollment in the current ETP project is that the trainee is likely to be unemployed. Sac JATT electricians, due to current economic conditions, are experiencing higher than normal unemployment rates. Training is limited to employees of participating employers. Recent figures submitted by Sac JATT indicate that journey level electricians are experiencing a 30% unemployment rate, compared with the average rate of 5% under normal economic conditions. These conditions, coupled with ETP requirements, will limit performance on ET08-0397.

PRIOR PROJECTS

This will be the fourth ETP project with Sac JATT. The following table summarizes performance under the second project (the first one ended more than five years ago):

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned
ET04-0591	Sacramento	02/10/04 - 02/09/06	\$160,080	\$19,994

The contractor states that performance on ET04-0591 would likely have been more favorable if not for the fact that workers in this industry frequently move from one employer to another, throughout the state. As a result, the contractor discovered many trainees who had relocated were unlikely to return to resume classes, especially when they had moved to a jobsite at a remote location. For the current proposal, the Sac JATT plans to recruit workers who are less likely to travel to remote worksites.

DEVELOPMENT SERVICES

This project was brought to the Panel by the marketing efforts of the California Labor Federation-Workforce and Economic Development Program and was developed at no charge to Sac JATT.

ADMINISTRATIVE SERVICES

Sac JATT retained Strategy Workplace Communications of San Mateo to perform administrative services for an amount not to exceed 13% of the payment earned.

TRAINING VENDORS

N/A

Exhibit B: Menu Curriculum**Class Lab Hours**

(24-200)

Trainees will receive any of the following:

BUSINESS SKILLS

Advanced Conflict Resolution
Advanced Customer Service Skills
Advanced Decision Making Skills
Advanced Leadership Skills
Advanced Problem Solving
Advanced Project Management and Supervision
Advanced Teambuilding Skills
Advanced Time Management
Creating Project Bids
Filling Out Work Documents and Reports Accurately

COMMERCIAL SKILLS

Alternating Current/Direct Current (AC/DC) Principles

- Generators
- Inductance/Reactance
- Math for Electricians
- Ohm's Law
- Principles of Electronics
- Series/Parallel Circuits

Codeology

- Arc Flash
- National Electrical Code
- Other Recognized Standards (installation changes)
- Plan, Build and Use
- Related Standards (mandatory and permissive rules)
- Special Occupancies and Equipment

Electrical Design

- 3 & 4-Way Switching
- Design of Electrical Circuits
- LonWorks and Building Automation
- Magnetic Motor Control and the Code
- Transformers and the Code

Fire Alarm Systems and Installations

- Definitions and Systems
- Initiating Devices and Notification Systems
- National Electrical Code and Installation Requirements
- National Fire Protection Act, 1972 (NFPA 72)
- Start Up and Check Out Procedures

Fire Life Safety

- National Electrical Code Chapters 1-3 & 5 (relating to fire alarms)
- National Electrical Code Article 725
- National Electrical Code Article 760
- National Fire Protection Association 72

Green Training

- Advanced Lighting Controls
- Energy Auditing
- Proper Equipment Set-Up
- Solar Panel Theory and Installation
- Testing Materials and Equipment –Proper Set-Up and Use
- Understanding New Technologies and Changes to Industry Standards

Grounding

- Grounding and Bonding
- National Electrical Code Article 100-Definitions & Provisions
- National Electrical Code Article 110-Requirements
- National Electrical Code Article 90-Introduction
- National Electrical Code Article Chapters 1-4

Heating Ventilation and Air Conditioning (HVAC)

- Principles
- Components
- Blueprints

Industrial Motor Control

- Advanced Instrumentation and Motor Controls
- Control Relays and Timers
- Jogging and Plugging Controls
- Manual Starters and Magnetic Coils
- Push Buttons, Selector Switches and Mechanical Devices
- Solid State Electronic Devices

Industry Specific Skills

- Architecture Designs and Advanced Plan Reading
- Blueprints & Schematics
- Conduit Bending
- Confined Space Entry
- Electrical Troubleshooting
- Firestop Installation
- Lightning Systems Protection
- Management and Monitoring of Materials
- Medical Gas Installation
- Rigging
- Safe Working Practices
- Specialized Tools
- Work Flow and Resources

Programmable Logic Control (PLC)

- Developing Ladder Programming
- Introduction to Programmable Equipment
- Programming Programmable Logic Controllers
- Using Timers and Counters in Logic Programs
- Writing a Program

Traffic Signals

- Principles
- Blueprints

Variable Frequency Drives

- Principles of Operation
- Installation
- Programming
- Start Up

Voice, Data and Video

- Audio Distribution
- Closed Circuit Television (CCTV) Security Surveillance
- Computer Networking
- Fiber Optics
- Telephonic Interconnect

COMPUTER SKILLS

- Auto Computer-Aided Design (AutoCAD)
- Job Tracking System
- Scheduling and Planning Jobs

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of delivery method.