



**Retrainee - Job Creation
Training Proposal for:
Maas Energy Works, Inc. (AB118)**

Small Business ≤ \$50,000

ET16-0801

Approval Date: July 28, 2015

ETP Regional Office: Sacramento

Analyst: M. Mazzone

CONTRACTOR

- Type of Industry:
 - Biotechnology/Life Sciences
 - Green Technology
 - Priority Industry: Yes No

- Number of Full-Time Employees
 - California: 4
 - Worldwide: 4
 - Number to be trained: 10
 - Owner Yes No

- Out-of-State Competition: NAICS Code Eligible
- Special Employment Training (SET): Yes No
- High Unemployment Area (HUA): Yes No
- Turnover Rate: 0%
- Repeat Contractor: Yes No

FUNDING

- Requested Amount: \$15,600
- In-Kind Contribution: \$15,600

TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate SB <100	Business Skills, Commercial Skills, Computer Sills, PL - Commercial Skills	4	8-60	0-10	\$1,560	\$17.00
				Weighted Avg: 60			
2	Retrainee Job Creation Initiative SB<100 Priority Rate	Business Skills, Commercial Skills, Computer Sills, PL - Commercial Skills	6	8-60	0-10	\$1,560	\$17.00
				Weighted Avg: 60			

- Reimbursement Rate: Job #'s 1 & 2: \$26 SB Priority
- County(ies): Kings, Fresno, Sacramento, Shasta, Tulare
- Occupations to be Trained: Project Manager, Biogas Facility Technician, Owner
- Union Representation: Yes
 No
- Health Benefits: N/A

SUBCONTRACTORS

- Development Services: N/A
- Administrative Services: N/A
- Training Vendors: To Be Determined

OVERVIEW

Maas Energy Works, Inc. (Maas Energy) was founded in Redding in 2010. The Company works in partnership with California rural dairy farmers and specializes in the capture of methane gas and conversion of this gas into electricity. Maas Energy leases land from dairy farmers and constructs an anaerobic digester and biogas engine facility on-site at each dairy farm. The anaerobic digester allows Maas Energy to manage the process of turning cow manure into methane gas. Methane gas is then moved to the biogas facility where the biogas engine converts the methane gas into electricity.

Training in this proposal will take place at the Company’s headquarters in Redding or at one of the sites that currently has a biogas renewable energy generation facility. Each facility consists of a biogas engine, biogas communication software terminal and electrical/gas controls. Currently, there are biogas facilities managed by Maas Energy in Galt, Elk Grove, Corcoran, Riverdale and Tipton. After the methane is converted into electrical energy, Maas Energy sells the energy to power utility companies such as PG&E and SMUD.

Need for Training

Maas Energy currently uses outside contractors to service and maintain the machinery that converts methane gas to electricity. Biogas engines differ from standard diesel and electrical engines and specialized training is required. Maas Energy's main training goal is to educate Biogas Facility Technicians in biogas engine operation, maintenance and troubleshooting. This will allow Maas Energy to keep this work in-house and eliminate the need to subcontract services. With proper training, Maas Energy technicians will manage all functions at each facility which include:

- Operating and maintaining the biogas engine;
- Processing information and using controls at the biogas computer terminal;
- Operating the facility's electrical and gas controls, and;
- Maintaining the anaerobic digester.

In addition, Project Managers will receive training to improve professional soft skills. Specifically, training will focus on the skills necessary to market, design, operate and manage biogas facilities.

Retrainee - Job Creation

The Panel offers incentives to companies that commit to hiring new employees. Training for newly-hired employees will be reimbursed at a higher rate and trainees will be subject to a lower post-retention wage.

In this proposal, Maas Energy has committed to hiring six new employees (Job Number 2). Maas Energy represents that the date-of-hire for all trainees in the Job Creation program will be within the three-month period before contract approval or within the term-of-contract. The Company also represents that these trainees will be hired into "net new jobs" as a condition of contract.

Maas Energy is rapidly growing in California as they are expecting to double the number of dairy farm facilities they operate and one location is currently expanding. This growth is projected over the next two years. With this business growth and taking on duties currently outsourced, Maas Energy will need to hire new employees.

AB118

This proposal will be funded under the AB 118 Training Program that was created in FY 2009-10. The AB 118 Program is administered by ETP in partnership with the California Energy Commission (CEC).

The overall goal of the AB 118 Program is to support a transition from petroleum-based transportation to alternative and renewable fuels and clean, low carbon vehicle technologies. There is no expenditure of Employment Training Tax funds for the AB 118 Program. Public entity employers are eligible to participate, such as city and county regional transit authorities.

Training is focused on job skills for a skilled workforce to produce and distribute new alternative fuels and design, construct, install, operate, service and maintain new fueling infrastructure and vehicles.

Alternative Fuel is defined as any fuel other than the traditional selections, gasoline and diesel from petroleum sources, used to produce energy or power. Examples of alternative fuels are: bio-diesel, ethanol, methanol, electricity, propane, compressed or liquid natural gas, and hydrogen.

Training Plan

Maas Energy plans to train its staff using a combination of Classroom/Laboratory, Productive Lab (PL) and Computer-based training (CBT). The classroom/Laboratory training and CBT will build a base of knowledge, which PL training will further expand.

Business Skills: Training will be delivered to all occupations. The Biogas Facility Technicians will receive minimal business skills training. The majority of the Project Manager's training will focus on the Biogas facility design, implementation and management. Training topics will include: Biogas Project Financial Management, Biogas Project Management, Biogas Facility Design and Operation, Biogas Marketing, Technical Writing and Obtaining Air Permits.

Commercial Skills: Training will be delivered to all occupations. Project Managers will receive an overview in the Technician processes. Biogas Facility Technicians will receive in-depth training on the operation, maintenance and controls of Biogas equipment. Training topics will include: Welding, Biogas Engine Maintenance, Biogas Engine Control, Biogas Engine Troubleshooting, Biogas Facility Electrical, Biogas Facility/Engine Safety and Utility Interconnection.

Computer Skills: Training will be delivered to all occupations to improve knowledge of the Biogas Facility Communications Networking system. All staff will have the ability to use this system productively after training.

Productive Lab (PL) – Commercial Skills

The Panel recently adopted regulations to authorize reimbursement for training delivered in a Productive Laboratory (PL) setting. PL trainees may produce goods for profit as part of the training in the courses identified under the Curriculum. The instructor must be dedicated to training delivery during all hours of training.

PL training will be crucial to Maas Energy's success as the Company plans to take on the duties currently outsourced. Duties including Biogas engine operation, Biogas engine maintenance and Biogas engine troubleshooting are all outsourced to contractors. Biogas Facility Technicians will receive class/lab and/or CBT training to lay a foundation of knowledge regarding Biogas engines. Trainers will observe and coach trainees prior to sending the trainee off to perform the work on their own. The Biogas engine repairs and maintenance are very detailed and time consuming tasks, which require extensive hands on training.

The PL training will provide staff with the hands on experience necessary to develop competency in the tasks. The Biogas Facility Technicians may receive up to 60 hours of PL training and the trainer-to-trainee ratio will not exceed 1:3. A 1:3 may be necessary as the worksites are spread throughout the state and it would be more cost efficient to bring the trainees and the trainer to one location for training.

RECOMMENDATION

Staff recommends approval of this proposal.

Exhibit B: Menu Curriculum

Class/Lab Hours

8-60

Trainees may receive any of the following:

BUSINESS SKILLS

- ❖ Biogas Project Financial Management
- ❖ Biogas Project Management
- ❖ Biogas Facility Design and Operation
- ❖ Technical Writing
- ❖ Biogas Marketing
- ❖ Obtaining Air Permits

COMMERCIAL SKILLS

- ❖ Welding
- ❖ Biogas Engine Maintenance
- ❖ Biogas Engine Controls
- ❖ Biogas Engine Troubleshooting
- ❖ Biogas Facility Electrical
- ❖ Biogas Facility / Engine Safety
- ❖ Utility Interconnection

COMPUTER SKILLS

- ❖ Biogas Facility Communications Networking

Safety Training cannot exceed 10% of total training hours per-trainee

Productive Lab Hours

0-60

COMMERCIAL SKILLS (Ratio 1:3)

- ❖ Welding
- ❖ Biogas Engine Maintenance
- ❖ Biogas Engine Controls
- ❖ Biogas Facility Electrical
- ❖ Biogas Engine Troubleshooting

CBT Hours

0-10

COMMERCIAL SKILLS

- ❖ Basic Electric Circuits (5 hours)
- ❖ Basic Anaerobic Chemistry (5 hours)

Note: Reimbursement for retraining is capped at 60 total training hours per trainee, regardless of the method of delivery. CBT is capped at 50% of total training hours, per trainee. PL is capped at 60 hours per-trainee.