

MONTHLY PROGRESS REPORT FOR CONTRACT NO. 500-00-036

PROJECT 2.2 – ENHANCED ENERGY RECOVERY THROUGH OPTIMIZATION OF
ANAEROBIC DIGESTION AND MICROTURBINES PROJECT

REPORT PREPARED BY: COMMONWEALTH ENERGY TEAM

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What we planned to accomplish this period:

Information collection and analysis activities were planned to continue as related to process selection. Activity related to enhanced energy production, gas cleaning and advanced energy recovery also will continue. It was anticipated that in September the process selection report would have been completed and sent to the Commission. It was also anticipated that this information would then be available to Commission staff and the RPAC prior to the Critical Program Review meeting scheduled for September 24th.

What we actually accomplished this period:

Task 2.2.1 Process Selection:

- A draft report was prepared and distributed to Commission staff. It described the processes that were considered and evaluated as a part of this project. The report addressed the different processes that are being analyzed for both the gas cleaning for microturbines and the enhanced anaerobic digestion processes.
- Meetings and teleconferences were held with the proposed project hosts as well as consultations with prospective vendors. This included a meeting to review the status of the ultrasound work with staff from the Riverside Treatment Plant.
- Topics addressed in the Process Selection Report were also presented at the RPAC meeting. The key finding related to this task that was presented included the recommendation that efforts in future tasks in this project focus on ultrasound. It was pointed out that the field of ultrasound was advancing rapidly and that there were a number of vendors with new technologies that were worthy of testing. Further, it was pointed out during the RPAC meeting that ultrasound was much more likely to be implemented at other locations in California than thermal

hydrolysis. It was also described how the Riverside Treatment Plant was an ideal place to test these technologies, as there were three available digesters. Two could be used for separate technologies and one could be used as a control.

How we are doing compared to our plan:

Process selection work is proceeding as anticipated. At the September 24th Critical Program Review meeting with the RPAC, the recommendation was made that efforts should focus on comparing two ultrasound technologies rather than an ultrasound and thermal hydrolysis technology. This recommendation was made due to the rapid advances being made in ultrasound technologies and their potential benefits as well as ultrasound's potential for much wider spread application in California. As of this reporting period, it is planned that future Project 2.2 activities will focus on ultrasound technology.

Significant problems or changes:

There are no significant fiscal problems to report during this period and work is proceeding within budget. Progress and expenditures will result in project being completed on our revised project schedule and within budget.

What we expect to accomplish during the next period:

Information collection and analysis activities will continue as related to implementation of the technologies identified in the process selection report. Activity related to enhanced energy production, gas cleaning and advanced energy recovery will continue and additional coordination activity with the project hosts at IEUA and Riverside County will continue. Efforts on the enhanced anaerobic digestion task will focus on more than one ultrasound technology in accordance with guidance from the RPAC.

Status of Milestones and Deliverables:

Table 1 below summarizes the status of Project 2.2 task deliverables as of the end of the current reporting period.

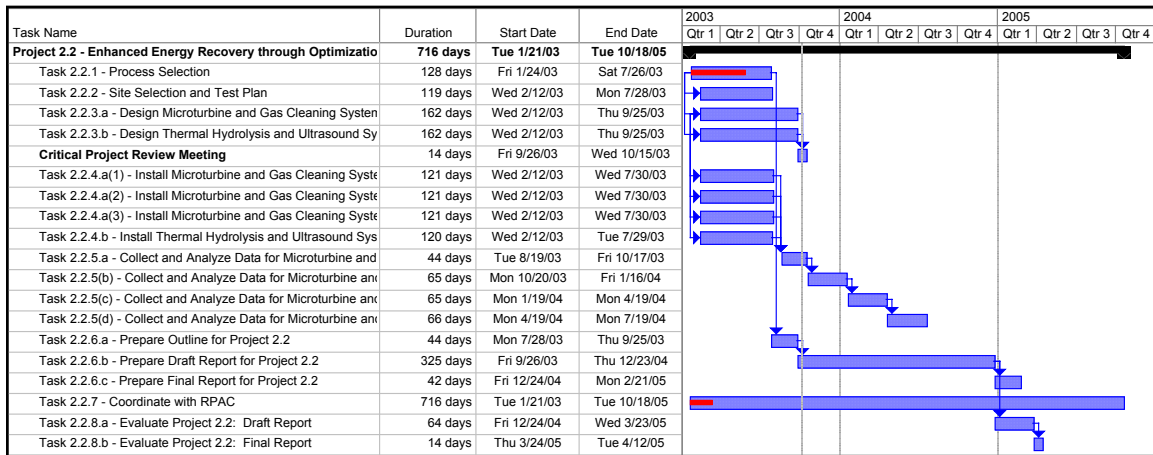
Table 1: Summary of Project Status and Deliverables – Project 2.2

Task No.	Description	Start Date		Due Date		Status (%)
		Planned	Actual	Planned	Actual	
2.2.1	Process Selection	01/24/02	01/24/03	09/04/03		67%
2.2.2	Site Selection and Test Plan	02/15/02		10/26/03		
2.2.3.a	Design Microturbine and Gas Cleaning System	02/15/02		11/24/03		
2.2.3.b	Design Thermal Hydrolysis and Ultrasound System	02/15/02		11/24/03		
2.2.7	Coordinate with RPAC	01/24/02		01/16/06		

Explanation of any Difference(s) in Schedule

Work is proceeding as anticipated, however it is possible that Task 2.2.1's deliverable submittal date may be revised.

Overall Schedule for Project 2.2:



Overview of Fiscal Status:

Table 2 below summarizes the fiscal status of Project 2.2 by task as of the end of the current reporting period.

Table 2: Fiscal Status by Task – Project 2.2

Task Number	Budget	Invoiced To-Date	Fiscal Status *
2.2.1	\$236,563	\$0	OT
2.2.2	\$182,543	\$0	OT
2.2.3.a	\$242,995	\$0	OT
2.2.3.b	\$215,842	\$0	OT
2.2.7	\$0	\$0	OT

*Fiscal Status – Please indicate if you are “On Track” (OT), OverBudget (OB), or UnderBudget (UB)