

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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Contractor Project Director:	Patrick Lilly (360) 906-0616
Contractor Project Manager:	Bill Kitto (503) 235-5022
Commission Project Manager:	Zhiqin Zhang (916) 654-4063

**What we planned to accomplish this period:**

Information collection and analysis activities was planned to continue in April as part of the effort on process selection. Activity related to enhanced energy production, gas cleaning and advanced energy recovery was also planned to be performed during this period. This work included communications with technology developers for the process technologies under consideration for Project 2.2.

**What we actually accomplished this period:**

Task 2.2.1 Process Selection:

- Information collection activities to support process selection continued in April. Information was assembled on different processes that are being analyzed as part of the *Process Selection* task. Data from the Sewage Treatment Database and Inventory Report on enhanced anaerobic digestion systems was supplemented by more detailed information on the process technologies being considered (i.e., ultrasound and thermal hydrolysis). Activities related to process conceptual design continued and were undertaken to allow information such as the process flow diagram to be developed for inclusion in the Process Selection Report. In addition to these vendor contacts, firms with expertise in biogas cleaning were contacted. Discussions continued with Ingersoll-Rand about their new fuel conditioning system and its possible use on this project.
- Work on the Process Selection Report is continuing although completion of the biogas portion of the report cannot be performed until the power flow work is completed as a part of Project 1.1. It is anticipated that these power flow results will be available in late May to mid-June and efforts to complete the prioritization report will be concluded following the availability of that information.

**How we are doing compared to our plan:**

Early process selection work is proceeding as anticipated. However, as stated previously, the uncertainty of the project recommended for funding, may push the deliverable due date for the Process Selection Report back.

**Significant problems or changes:**

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

**What we expect to accomplish during the next period:**

Information collection and analysis activities will continue as related to process selection. Activity as related to enhanced energy production, gas cleaning and advanced energy recovery will continue in May. Communications with technology developers for the technologies under consideration will also continue. In addition, preparation of the draft process selection report will begin in May.

**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.

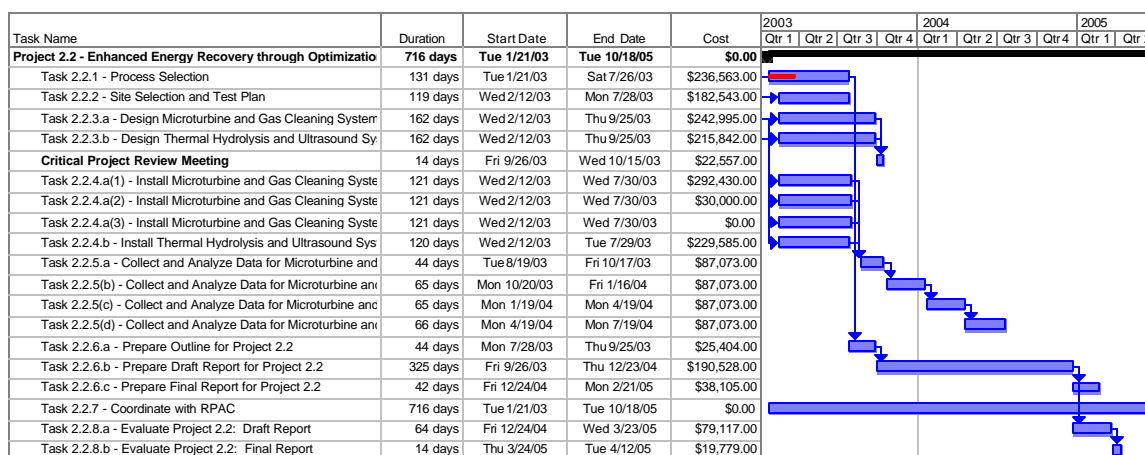
**Table 1: Summary of Project Status and Deliverables – Project 2.2**

Task No.	Description	Start Date		Due Date		Status (%)
		Planned	Actual	Planned	Actual	
2.2.1	Process Selection	01/21/03	01/24/03	07/26/03		32%
2.2.2	Site Selection and Test Plan	02/12/03		07/28/03		
2.2.3.a	Design Microturbine and Gas Cleaning System	02/12/03		09/25/03		
2.2.3.b	Design Thermal Hydrolysis and Ultrasound System	02/12/03		09/25/03		
2.2.7	Coordinate with RPAC	01/21/03		10/18/05		

Explanation of any Difference(s) in Schedule

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

**Overall Schedule for Project 2.2:**



**Overview of Fiscal Status:**

Table 2 below summarizes the fiscal status of Project 1.1 by task as of the end of the current reporting period.

**Table 2: Fiscal Status By Task – Project 2.2**

<b>Task Number</b>	<b>Budget</b>	<b>Invoiced To-Date</b>	<b>Fiscal Status *</b>
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	\$22,557	\$0	OT

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