

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

PROJECT 3.1 – DAIRY WASTE TO ENERGY PROJECT

REPORT PREPARED BY: COMMONWEALTH ENERGY TEAM

January 2004

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What we planned to accomplish this period:

Activities in January were to include the continued response to comments made at the CPR and follow-up meetings as they relate to the relationship of proposed projects to the Commonwealth Business Plan. In particular, the CE Team's primary focus was to be on reaching a consensus on project elements and then re-evaluating the project in light of Commonwealth's Business Plan. This work was to include looking at how these projects could help Commonwealth work with communities within the Chino Basin and elsewhere; to not only make renewable energy more affordable, but also to advance Commonwealth's business objectives related to community aggregation. Other activities were to focus on finalizing previously submitted work including the *Test Plans and Protocols* and *Digester Comparison Reports* and on working with Commonwealth to link these projects into its business plan under the PIER program. This will be accomplished as Commission feedback becomes available on the Commonwealth Business Plan.

Other important activities to be conducted in January were related to Task 3.1.6. Efforts were to continue on finalizing the task peer review group. Additionally, it was anticipated that work progress on the baseline and the scheduling of the peer workshop in February. In preparation of this meeting, an expanded *Monitoring, Reporting and Verification* annotated outline was to be developed and forwarded to the peer review team for discussion at the workshop.

What we actually accomplished this period:

Task 3.1.1: Assess, Evaluate and Select Animal Waste to Energy Technology

- Efforts on this task continued to be limited, and focused primarily on developing the revised Implementation Plan for Project 3.1, in light of the comments received

from the Commission. A draft of the Commonwealth Business Plan was submitted in early January and discussed in more detail with the Commission later in the month.

Task 3.1.3: Develop Bench Scale and Other Test Plans and Protocols

- CH₂ continued its integration of the revisions to the prioritization list based upon the redirection of focus for locations other than the existing RP-5 plug flow facility. In January, work on the *Test Plans and Protocol Report* was limited to incorporating the Commission's comments on proposed projects in relation to Commonwealth's Business Plan and the Project 3.1 Implementation Plan. Additional modifications to the draft test plans submitted previously, will be undertaken to ensure that it will be consistent with the Commission's Test Plan guidelines. Finalization of this report is anticipated upon receipt of feedback on the Commonwealth Business Plan and the revised Project 3.1 Implementation Plan.

Task 3.1.6: Conduct Economic and Environmental Assessment

- Work continued on (the accelerated) Task 3.1.6, building on information obtained during the site visits in December. Additionally, an expanded annotated outline of the *Monitoring, Reporting and Verification* protocol for quantifying the environmental benefits of the centralized digestion projects was prepared. As anticipated, this information was forwarded to the peer group and will be presented in subsequent phases of this project.
- Also in January, the names of the individuals on the Environmental Benefits Peer Review Team were finalized and e-mails were sent to them requesting their participation in the Program. As reported previously, this list consists of over fifty individuals with a recognized interest in identifying and quantifying environmental benefits of dairy waste anaerobic digestion projects. It is anticipated that this peer review team will be involved in reviewing findings of later phases of this project, as well as providing invaluable opinions and insights for their specific perspectives/objectives.
- Planning continued on the February workshop. The workshop was scheduled for February 5th, and the participants were provided with the annotated outline of the *Monitoring, Reporting and Verification* protocol for quantifying environmental benefits of the centralized digestion projects in preparation for the workshop.

How we are doing compared to our plan:

As indicated previously, the CE Team is awaiting Commission comments on the Project 3.1 Implementation Plan.

Significant problems or changes:

It continues to be clear that a key element on the project is the definition and quantification of the environmental and economic benefits of the dairy waste to energy project. This is particularly true for centralized dairy projects, which may offer the best potential for achieving environmental benefits for a range of dairy digestion projects. The CE Team continues to work with IEUA and is seeking cost information for centralized dairy waste to energy projects in a form that can be appropriately used to present the relative benefits of on-farm and centralized facilities in Europe and North America. CH₂ also continues to identify an approach to quantify the environmental benefits to help the overall economic performance of the project. As reported previously, the CE Team submitted a proposal to accelerate work on Task 3.1.6. This acceleration was approved and is being implemented, and will be an important component of the overall program, as efforts are needed to ensure that future centralized systems are optimized in order to see that economic and environmental benefits are maximized.

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 time under a revised schedule and within budget based upon the near-term acceptance of the revised project plan.

What we expect to accomplish during the next period:

Activities in February will continue to focus on efforts to re-evaluate the project in light of Commonwealth's Business Plan. Additionally, the proposed project prioritization decision-making framework will be undertaken. When this information is developed, it will be incorporated into the Project 3.1 Implementation Plan, in order to develop a focus of future program activities on tasks that advance projects in the Chino Basin and other areas in California, which have distinct business objectives related to community aggregation and other business objectives. Other activities on this task will focus on finalizing previously submitted work including the *Test Plan and Protocol* and *Digester Comparison Reports*, as well as working with Commonwealth to continue to link these projects with its business plan under the PIER program.

Activities will move forward under Task 3.1.6, as the CE team prepares for and conducts the Environmental Benefits Peer Review Team workshop, to be held on February 5th. This workshop will provide a forum where the Peer Review Team can offer their opinions on the baseline analysis as well as the draft and expanded annotated outline for the *Monitoring, Reporting and Verification* protocol prepared in January.

Status of Milestones and Deliverables:

Table 1 on the following page summarizes the status of Project 3.1 task deliverables as of the end of the current reporting period.

Table 1: Summary of Project Status and Deliverables – Project 3.1

Task No.	Description	Start Date		Due Date		Status (%)
		Planned	Actual	Planned	Actual	
3.1.1a(1)	Technical Memorandum Comparing Plug Flow and Complete-Mix Digestion Performance & Economics	01/24/02	04/04/03	06/27/03	06/27/03	95%
3.1.1a (2)	Preliminary Draft Process Recommendation Report	01/24/02	04/04/03	10/25/03		20%
3.1.1a (3)	Draft Processes Recommendations Report	01/24/02		11/18/03		
3.1.1.b	Assess Evaluate, and Select Animal Waste to Energy Technology	01/24/02		01/17/04		35%
3.1.2	Site Selection	01/24/02		12/20/03		
3.1.3a	Test Plan and Protocols	03/25/02	04/04/03	09/10/03		90%
3.1.6a	Conduct Economic and Environmental Assessment	07/12/05	12/04	12/13/05		30%
3.1.8	Coordinate with RPAC	01/24/02		05/12/06		

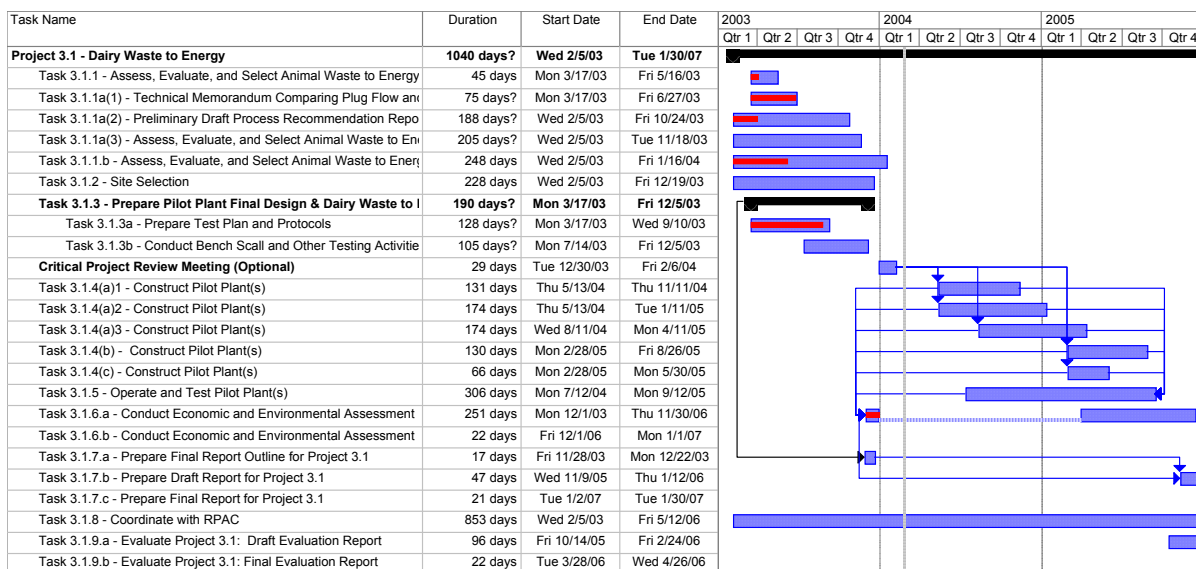
Explanation of any Difference(s) in Schedule

The following listing provides the explanation for the reported changes in the schedule at the project task/deliverable level.

Task 3.1.3.a – Test Plan and Protocols – The initial Test Plan and Protocols Report was originally based on plans to conduct tests at RP-5. Due to comments received from the Commission, no PIER projects are planned at RP-5. The Test Plan and Protocol Report has been revised to reflect that situation. In addition, the report will be revised to be consistent with the Commission Test Plan guidelines and the revised Implementation Plan for Project 3.1 that has been prepared as a follow up to discussions held in conjunction with the Program CPR meeting.

Once the Commission has accepted the plan for Project 3.1, the remaining tasks on Project 3.1 can be completed. The plan, which identifies a number of tasks that are to be implemented, will provide a sound platform for future centralized dairy projects. The overall schedule for Project 3.1 will be revised once the plan is approved.

Overall Schedule for Project 3.1:



Overview of Fiscal Status:

Table 2 below summarizes the fiscal status of Project 3.1 by task as of the end of the current reporting period.

Table 2: Fiscal Status by Task – Project 3.1

Task Number	Budget	Invoiced To-Date	Fiscal Status *
3.1.1 a (1)	\$48,000	\$0	OT
3.1.1 a (2)	\$72,000	\$0	OT
3.1.1 a (3)	\$120,706	\$0	OT
3.1.1.b	\$240,706	\$0	OT
3.1.2	\$171,240	\$0	OT
3.1.3	\$301,177	\$0	OT
3.1.6a	\$320,754	\$0	OT

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