

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

PROJECT 1.1 – PROGRAM PLANNING AND ANALYSIS

REPORT PREPARED BY: COMMONWEALTH ENERGY TEAM

August 2003

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

Activity in August will focus on the continuing effort to define and prioritize the top projects to be recommended for funding in Project 1.1. The final identification of such projects will draw on the results of the power flow analysis of the Mini-Grid and incorporate these with other ongoing activity. Of particular importance are the availability and the viewpoints of “Project Champions” for each of these projects. For this reason, dialogs will continue with the various project sponsors.

Itron and ZECO anticipates the finalization and submission of the Task 1.1.9b report to the Commission PIER staff and to the TAC members for review and comments.

**What we actually accomplished this period:**

Task 1.1.7 Assess Market Potential within Mini-grid:

- Itron received comments on the biogas portion of the draft report.

Task 1.1.8 Development of Generations Profiles

- Itron circulated an early draft of the Task 1.1.8 report to the CE Team members for review and comments. Additionally, Itron worked on preparing the draft final report.

Task 1.1.9 Conduct Power Flow Analysis within Mini-Grid Target Area:

- ZECO incorporated T&D cost assumptions received from Southern California Edison into the benefit/cost calculations and revised Sections Five and Six of the Task 1.1.9b draft report.

Task 1.1.10 Prepare Prioritized List of Projects for PV and Biogas Systems

- CH<sub>2</sub> prepared its input to the Prioritized list of Project sites. Emphasis focused on those projects, which would foster the development of effective centralized dairy digester projects. The effort built on information collected previously and new input received from prospective hosts of bioreactor projects. Information developed as part of the ongoing work in projects 2.1, 2.2, and 3.1 was also considered in this process. This activity was coordinated with the efforts of the PV team to insure a consistent unified draft report approach. The preliminary draft of the report was completed and made available to senior reviewers on the project team for their review and comment.

Task 1.1.11 Prepare Final Report

- Work continued, in a limited manner, on the Final Report. This included compiling the key findings for each of the early tasks in this project and continued consultation with NIRAS on European technologies and practices. In general, much of the effort associated with preparing the final report has been completed and limited work was conducted this period. Finalization of the draft report awaits completion of the prioritization activities and feedback from the RPAC and TAC members on previous Project 1.1 and other early project deliverables. As noted in the previous monthly reports, coordination of the preliminary key findings of this project with the initial activities of Projects 2.1, 2.2, 3.1, and 3.3 was also undertaken so that efforts on subsequent tasks would be aligned with the key findings of Project 1.1 to be presented in the final report. Some of these findings include:
  - Continue to work with leading landfill bioreactor host candidate site (likely to be either Mid-Valley or San Timoteo Landfill owned by San Bernardino County) so that the landfill bioreactor project (Project 2.1) can be implemented in a way that takes advantage of an existing operational facility and builds on the lessons-learned on the Yolo County pilot projects.
  - Efforts related to increased energy production from enhanced anaerobic digestion at wastewater treatment plants (Project 2.2) should focus on the development of pilot projects using ultrasound (and possibly thermal hydrolysis) at the Riverside wastewater treatment plant. This plant has several characteristics including a favorable process configuration that is representative of other treatment plants in the State, making it well-suited for more detailed analysis.
  - Efforts related to digester gas cleaning for microturbines should focus on potential projects at IEUA Regional Plant 1 (RP-1). This plant has experience using a variety of power generation equipment and gas cleaning.
  - Focus dairy waste to energy projects (Project 3.1) on centralized dairy projects. Special focus should be on building on lessons-learned at existing projects and placing special emphasis on defining environmental and other factors that drive project implementation and economics. Also, efforts in

future projects should build on the analysis of what has been learned at other dairy waste to energy projects. Some of these findings are to be presented in the Digester Comparison Report and in the Test Plans and Protocols prepared as part of Project 3.1.

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

Work continues to progress generally as anticipated. Although there have been challenges within a few of the tasks, the majority of these challenges have been resolved, and have not seriously effected the revised project schedule or overall project budget as a whole.

**Significant problems or changes:**

There are no significant fiscal problems to report on during this period and work is proceeding within the Project 1.1 budget. As reported previously, there have been several task-level budget transfers to date, however, progress and expenditures will result in project being completed on time under the revised schedule and within the original project budget.

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

Activity in September will focus on preparing for participating in the Critical Program Review meeting with the RPAC and the Commission PIER Management Team. Several draft final reports will be submitted prior to this meeting, with emphasis placed on completing the Task 1.1.10 draft Prioritization Report. Additionally, CH<sub>2</sub> anticipates that responses to the Commission's comments on the agricultural waste database and inventory report will be completed and submitted to the Commission. Finally, the CE team plans to restart the work on the Project 1.1.11 Draft Final Report, Task 1.1.11b, during the last week in September to respond to comments of RPAC members made at the meeting on September 24<sup>th</sup>.

Itron anticipates submitting the Task 1.1.8 and Task 1.1.10 Draft Final Reports to the Commission and the TAC members for review at least 10 days prior to the scheduled Critical Program Review meeting.

Itron and ZECO also anticipates submitting the Draft Final Task 1.1.9b report to the Commission and TAC members for review prior to the Critical Program Review meeting.

**Status of Milestones and Deliverables:**

Table 1 below summarizes the status of Project 1.1 task deliverables as of the end of the current reporting period.

**Table 1: Summary of Project Status and Deliverables – Project 1.1**

Task No.	Description	Start Date		Due Date		Status (%)
		Planned	Actual	Planned	Actual	
1.1.1	Review previous CA technical & market potential assessments	6/5/02	6/5/02	8/4/02	10/31/02	100%
1.1.1	“Preliminary definition” of Program mini-grid region	6/5/02	6/5/02	8/4/02	10/31/02	100%
1.1.2a	Develop DB of Agricultural Facilities	6/19/02	7/20/02	01/17/03	07/31/03	95%
1.1.2b	Develop Ag GIS report	6/19/02	8/12/02	01/17/03	07/31/03	95%
1.1.3a	Develop Landfill DB	6/19/02	6/19/02	10/25/02	12/15/02	100%
1.1.3b	Develop Landfill GIS report	6/19/02	6/19/02	10/25/03	12/15/02	100%
1.1.4a	Develop WWT facility DB	6/19/02	6/19/02	10/31/02	12/15/02	100%
1.1.4b	Develop WWT GIS report	6/19/02	6/19/02	10/31/03	12/15/02	100%
1.1.5	Develop BIPV systems DB	8/5/02	8/5/02	12/03/02	2/5/03	100%
1.1.6	Develop T&D System DB	6/5/02	6/26/02	02/16/03	06/10/03	100%
1.1.7	Market Potential Assessment	11/10/02	9/13/02	08/01/03	07/31/03	99%
1.1.8	Develop Generation Profiles	12/11/02	8/15/02	09/15/03		99%
1.1.9 a	Conduct Power Flow Analysis (T&D Model)	10/14/02	09/23/02	02/16/03	06/10/03	100%
1.1.9 b	Conduct Power Flow Analysis (Summary Reports)	11/15/02	09/02/03	09/11/03		95%
1.1.10	Prepare Prioritized List of Projects for PV and Biogas Systems	12/03/02	11/04/02	09/12/03		80%
1.1.11a	Prepare Draft Report Outline for Project 1.1	1/17/03	02/10/03	02/21/03	7/13/03	100%
1.1.11b	Prepare Draft Report for Project 1.1	3/08/03	04/18/03	09/26/03		30%
1.1.13	Develop M&E Plans	6/5/02	7/15/03	05/29/03		12%

*Explanation of any Difference(s) in Project 1.1 Schedule*

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

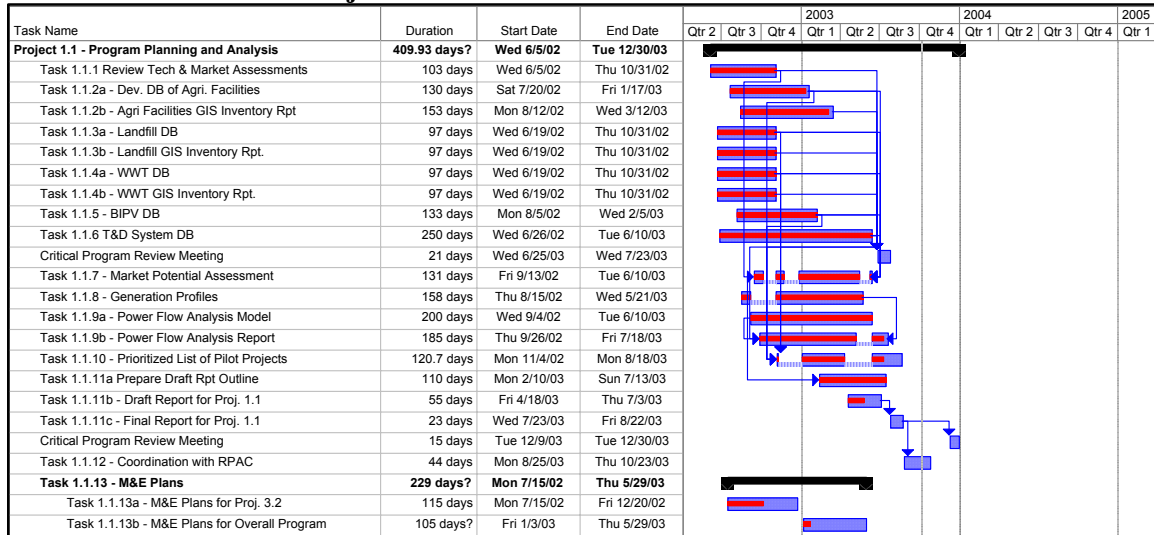
*Task 1.1.2 Develop Database of Agricultural Facilities* – The difficulties in obtaining information on the representative dairy loads delayed completion of this database and the Inventory Report. Information has been collected and the document resubmitted.

Comments were received from the Energy Commission on the revised document and the appropriate responses are being prepared. The anticipated completion of this document in September will not impact the overall schedule as other tasks, not Task 1.1.2, are on the critical path for completion of Project 1.1.

*Task 1.1.10 Prepare Prioritized List of Projects for PV and Biogas Systems* – This task started on schedule. Its completion has been delayed by approximately two to three months. This will allow for incorporation of the findings of the expanded Mini-Grid T&D impacts analysis within the prioritized list of projects.

*Task 1.1.11 – Prepare Final report* - The start of this task has been delayed by approximately six weeks. This change was made to accommodate the completion of the tasks related to the agricultural waste database and inventory report, as well as to allow for incorporation of the Mini-Grid T&D impacts analysis and guidance of the RPAC. These changes, however, are consistent with other aspects of the program which needed to await incorporation of the findings of the Mini-Grid T&D power flow impacts analysis.

**Overall Schedule for Project 1.1:**



**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 1.1**

Task Number	Budget	Invoiced To-Date	Fiscal Status *
1.1.1	\$ 18,902.00	\$18,902.00	OB
1.1.2a	\$ 85,562.00	\$0	OT
1.1.2b	\$ 100,562.00	\$0	OT
1.1.3a	\$ 66,865.00	\$66,865.00	OT
1.1.3b	\$ 66,865.00	\$66,865.00	OT
1.1.4a	\$ 93,136.00	\$93,136.00	OT
1.1.4b	\$ 96,136.00	\$93,136.00	OT
1.1.5	\$ 87,177.00	\$85,780.00	OT
1.1.6	\$ 98,840.00	\$98,840.00	OT
1.1.7	\$ 96,896.00	\$0	OB
1.1.8	\$ 15,363.00	\$0	OT
1.1.9	\$114,174.00	\$37,040.00	OT
1.1.10	\$172,132.00	\$0	OT
1.1.11a	\$ 18,540.00	\$0	OT
1.1.11b	\$ 114,046.00	\$0	OT
1.1.12	\$ 0.00	\$0	OT
1.1.13	\$ 25,251.00	\$0	OT

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