

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

PROJECT 1.1 – PROGRAM PLANNING AND ANALYSIS

REPORT PREPARED BY: COMMONWEALTH ENERGY TEAM

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What we planned to accomplish this period:

Activity in September was to focus on preparing for participating in the Critical Program Review meeting with the RPAC and the Commission PIER Management Team. The CE Team anticipates that 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, CH₂ anticipated that responses to the Commission's comments on the agricultural waste database and inventory report would be completed and submitted to the Commission. Finally, the CE Team plans to re-start 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 24th.

Iron anticipated submitting the Task 1.1.8 and Task 1.1.10 Draft Final Reports to the Commission and the TAC members for review within 10 days of the scheduled Critical Program Review meeting.

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

What we actually accomplished this period:

Task 1.1.2 Develop Database of Agricultural Facilities in So. California, targeting the Chino Basin:

- The CE team staff collected and assembled information in response to comments from Commission staff on the revised Agricultural Database and Inventory Report. Additional information was collected and revisions to the report were made.

- Staff continued to provide limited support to on-going efforts to refine the technical and market potential evaluations being used in the prioritization and other tasks.

Task 1.1.7 Assess Market Potential within Mini-grid:

- The draft final Task 1.1.7 report was forwarded to the Project 1.1 TAC for review on September 2nd, and placed on the Private-side of the CE Program Website. Further, information related to this project was assembled into materials presented to the RPAC at the September 24th meeting.

Task 1.1.8 Development of Generation Profiles

- The draft of the Task 1.1.8 report was completed and submitted to the Commission on September 8th. This report was also forwarded to the Project 1.1 TAC for review on September 9th, and placed on the private-side of the CE Program Website. Further, information related to this project was assembled into materials presented to the RPAC at the September 24th meeting.

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

- The draft final of the Task 1.1.9b report was completed and submitted to the Commission on September 10th. This report was also forwarded to the Project 1.1 TAC for review on September 11th, and placed on the private-side of the CE Program Website. Further, information related to this project was assembled into materials presented to the RPAC at the September 24th meeting.

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

- CH₂ prepared its input to the Prioritized List of Projects and worked with Itron staff to prepare an integrated report. Emphasis focused on those projects, which would foster the development of effective centralized dairy digester projects. This 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. This activity was coordinated with the efforts of the CE/PV team to insure a consistent unified report. The draft of the report was completed and submitted to the Commission on September 10th. This report was also forwarded to the Project 1.1 TAC for review on September 11th, and placed on the private-side of the CE Program Website. Further, information related to this project was assembled into materials presented to the RPAC at the September 24th meeting.

Task 1.1.11 Prepare Final Report

- Work continued, in a limited manner, on the Final Report. This included assembling 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 during this reporting period. Draft finalization of the report awaits completion of the prioritization activities and feedback from the RPAC following the September 24th meeting. 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 and 3.1 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 (Mid Valley or Sam 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 facility and builds on lessons learned on the Yolo County project and advances the bioreactor concept toward commercialization in California.
- 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 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 October will focus on the follow-up activities from the RPAC meeting held on September 24th, as well as responding to comments received on the deliverables submitted previously, and highlighted above in each individual task. It is anticipated that responses to the Commission's comments on the Agricultural Waste Database and Inventory Report will be completed and the final report submitted to the Commission. This would mark the completion of the first three biogas tasks in Project 1.1, Task 1.1.2, Task 1.1.3 and Task 1.1.4. It is also anticipated that work will continue on the Project 1.1.11, Final Report in October. It will incorporate comments received on the earlier Project 1.1 draft reports and comments received during the RPAC meeting and subsequent follow-up meetings.

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	97%
1.1.2b	Develop Ag GIS report	6/19/02	8/12/02	01/17/03	07/31/03	97%
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		95%
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		55%
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

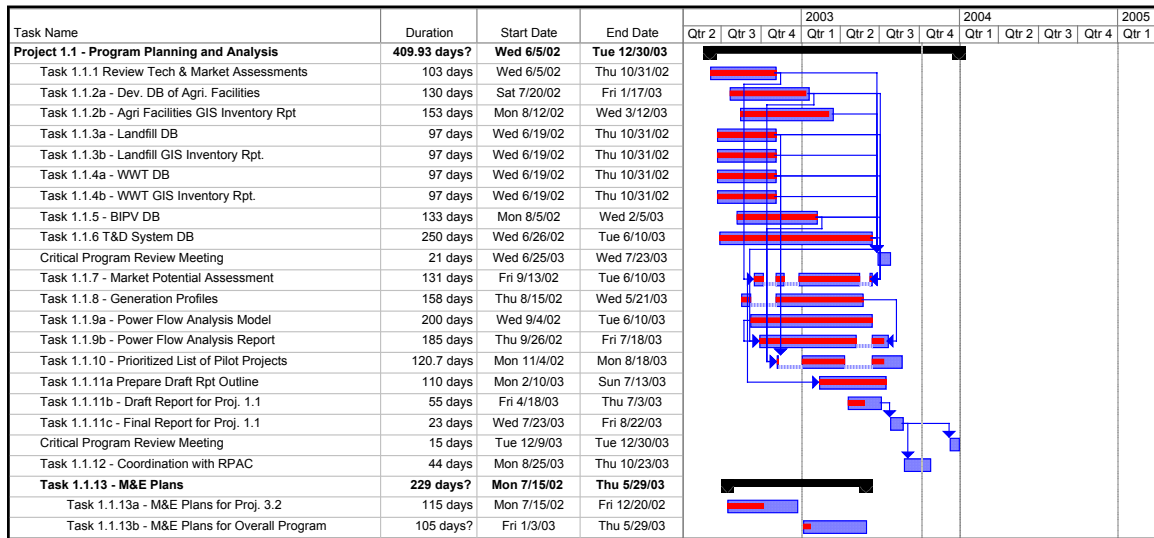
The following listing provides the explanation for the reported changes in the schedule at the project task/deliverable level:

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 Commission on the revised document and the appropriate responses are being prepared. The anticipated completion of this document in October 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 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 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)