

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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Contractor Project Director:	Patrick Lilly (360) 906-0616
Contractor Project Manager:	David Hanna (858) 481-0081
Commission Project Manager:	Zhiqin Zhang (916) 654-4063

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

CH<sub>2</sub> anticipated that activity in June would focus on the continuing effort to define and prioritize the top projects to be recommended for funding in Project 1.1, under task 1.1.10. The final identification of such projects will await the completion of the power flow analysis of the Mini-Grid, but in the absence of those findings the team will identify projects that meet the other objectives of the Commonwealth Program.

Itron and ZECO expect to submit the finalized Task 1.1.6 and Task 1.1.9a Final Report deliverables to the Commission. Additionally, ZECO and Itron expect to complete the Task 1.1.9b power flow analysis with and without renewables, and submit the draft Task 1.1.9b report to the internal Team members and the Commission for review.

Itron anticipates it will submit the BI-PV and Biogas Market Potential Assessment Draft Final Report for Task 1.1.7. Itron additionally expects to submit the Draft Final Report on generation profiles under Task 1.1.8, and finally, Itron anticipates submitting the Final Report Outline for Project 1.1 for approval, under Task 1.1.11a.

**What we actually accomplished this period:**

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

- CH2M HILL completed its efforts to respond to the Energy Commission comments on the draft Agricultural database and inventory report except for collection of some additional data on the electrical loads at dairies in the Chino Basin. On this topic, supplemental information on dairy loads was assembled from several published sources and interviews. This information will be presented in the final report. This additional information is intended to provide information

on dairy loads in the Chino Basin in the absence of specific data from Chino Basin dairies. As noted earlier, dairy operators are reluctant to provide much information about their operation that could be considered proprietary or otherwise provide insight into their operations.

- CH<sub>2</sub> continued to provide limited support to efforts in order to refine the technical and market potential evaluations being used in subsequent work of the Mini-Grid evaluations being used in other tasks.

Task 1.1.6 Collect Information on Transmission/Distribution System:

- The revised Task 1.1.6 Final Report submitted to RER/Itron and Commonwealth for review last month was finalized and submitted to the CEC Program Manager for final approval.

Task 1.1.7 Assess Market Potential within Min-grid:

- An initial draft of the BI-PV and Biogas Market Potential Assessment report was completed and circulated among the team members for review.

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

- The Task 1.1.9a report on the development of the power flow analysis model was revised and submitted to the CEC Program manager for final approval.
- ZECO continued its work on task 1.1.9b, and developed the year 2007 and 2012 peak and light load power flow cases for low, medium and high renewable penetration levels.
- ZECO performed the power flow analysis using preliminary cost assumptions and began writing the draft power flow analysis report under task 1.1.9b.

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

- CH2M HILL assembled information collected previously and related it to the ongoing process selection and related work in projects 2.1, 2.2 and 3.1. as a part of its effort for the draft prioritization report. Much of the technical work on this report has been completed previously although finalization of the report will await completion of the Mini-Grid analysis. Work on this report continued at a moderate level with a more intense level of effort planned for July and August when the results of the Mini-Grid analysis are completed and these results can be factored into the prioritization effort.

Task 1.1.11 Prepare Final Report

- Work continued on the Final Report.

**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 schedules or budgets for the project as a whole.

The inventory report under Project 1.1.2 was to have drawn on information provided by individual dairies and the Milk Producers Council in order to describe electrical loads at dairies in the Chino Basin. It has been challenging to collect such information because dairies continue to be reluctant to make such information available to other due to proprietary and other business considerations. Staff continued to analyze information collected from a variety of sources and are using it to provide the necessary information for the final report for this task.

**Significant problems or changes:**

There are no significant fiscal problems to report on during this period and work is proceeding within budget. There have been several task-level budget transfers to date under Project 1.1, 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 July 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 await the completion of the power flow analysis of the Mini-Grid, but in the absence of those findings the team will identify projects that meet the other objectives of the Project.

ZECO anticipates completing and submitting the Task 1.1.9b power flow analysis draft report to the Commission for review.

Itron anticipates it will submit the BI-PV and Biogas Market Potential Assessment Draft Final Report for Task 1.1.7. Itron additionally expects to submit the Draft Final Report on generation profiles under Task 1.1.8.

**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 and 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		90%
1.1.2b	Develop Ag GIS report.	6/19/02	8/12/02	01/17/03		90%
1.1.3a	Develop Landfill DB.	6/19/02	6/19/02	10/25/02	10/31/02	100%
1.1.3b	Develop Landfill GIS report.	6/19/02	6/19/02	10/25/03	10/31/02	100%
1.1.4a	Develop WWT facility DB.	6/19/02	6/19/02	10/31/02	10/31/02	100%
1.1.4b	Develop WWT GIS report.	6/19/02	6/19/02	10/31/03	10/31/02	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	02/14/03	98%
1.1.7	Market Potential Assessment	9/13/02	9/13/02	05/16/03		98%
1.1.8	Develop Generation Profiles	10/14/02	8/15/02	05/21/03		90%
1.1.9 a	Conduct Power Flow Analysis (T&D Model)	09/04/02	09/23/02	02/16/03	02/13/03	96%
1.1.9 b	Conduct Power Flow Analysis (Summary Reports)	09/26/02	01/02/03	06/28/03		85%
1.1.10	Prepare Prioritized List of Projects for PV and Biogas Systems	10/19/02	11/04/02	07/15/03		65%
1.1.11a	Prepare Draft Rpt Outline	9/19/02	02/10/03	02/21/03	02/12/03	97%
1.1.11b	Prepare Draft Report	3/08/03	4/18/03	11/07/03		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 draft document submitted. Comments were received from the Energy Commission and the appropriate

responses are being prepared. The anticipated completion of this document in July 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 1.1.7 Assess Market Potential within Mini-Grid –Due to the reasons described in last month’s status report, this task is currently over budget relative to the amount of progress towards its completion and has been re-budgeted for completion using funds from other Tasks under Project 1.1.

Task 1.1.9b – Conduct Mini-Grid Power Flow Analysis (T&D Model) – The start of this task was delayed as it requires input from Task 1.1.7. However, the analysis was completed and work began on the draft report.

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

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. These changes should not, however, affect the scheduled completion date of the overall project as that is dictated by the timeframe needed to incorporate the findings of the Mini-Grid Analysis.

**Overall Schedule for Project 1.1:**

Task Name	Duration	Start Date	End Date	2003				2004				2005			
				Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
<b>Project 1.1 - Program Planning and Analysis</b>	<b>477.8 days?</b>	<b>Wed 6/5/02</b>	<b>Fri 4/2/04</b>												
Task 1.1.1 Review Tech & Market Assessments	103 days	Wed 6/5/02	Thu 10/31/02												
Task 1.1.2a - Dev. DB of Agri. Facilities	130 days	Sat 7/20/02	Fri 1/17/03												
Task 1.1.2b - Agri Facilities GIS Inventory Rpt	153 days	Mon 8/12/02	Wed 3/12/03												
Task 1.1.3a - Landfill DB	97 days	Wed 6/19/02	Thu 10/31/02												
Task 1.1.3b - Landfill GIS Inventory Rpt.	97 days	Wed 6/19/02	Thu 10/31/02												
Task 1.1.4a - WWT DB	97 days	Wed 6/19/02	Thu 10/31/02												
Task 1.1.4b - WWT GIS Inventory Rpt.	97 days	Wed 6/19/02	Thu 10/31/02												
Task 1.1.5 - BIPV DB	133 days	Mon 8/5/02	Wed 2/5/03												
Task 1.1.6 T&D System DB	168 days	Wed 6/26/02	Fri 2/14/03												
Critical Program Review Meeting	21 days	Thu 3/27/03	Thu 4/24/03												
Task 1.1.7 - Market Potential Assessment	131 days	Fri 9/13/02	Fri 5/16/03												
Task 1.1.8 - Generation Profiles	158 days	Thu 8/15/02	Wed 5/21/03												
Task 1.1.9a - Power Flow Analysis Model	117 days	Wed 9/4/02	Thu 2/13/03												
Task 1.1.9b - Power Flow Analysis Report	185 days	Thu 9/26/02	Wed 6/11/03												
Task 1.1.10 - Prioritized List of Pilot Projects	120.7 days	Mon 11/4/02	Sun 6/15/03												
Task 1.1.11a Prepare Draft Rpt Outline	112 days	Mon 2/10/03	Tue 7/15/03												
Task 1.1.11b - Draft Report for Proj. 1.1	146 days	Fri 4/18/03	Wed 12/31/03												
Task 1.1.11c - Final Report for Proj. 1.1	23 days	Wed 12/31/03	Mon 2/2/04												
Critical Program Review Meeting	15 days	Mon 2/2/04	Mon 2/23/04												
Task 1.1.12 - Coordination with RPAC	44 days	Mon 2/2/04	Fri 4/2/04												
<b>Task 1.1.13 - M&amp;E Plans</b>	<b>229 days?</b>	<b>Mon 7/15/02</b>	<b>Thu 5/29/03</b>												
Task 1.1.13a - M&E Plans for Proj. 3.2	115 days	Mon 7/15/02	Fri 12/20/02												
Task 1.1.13b - M&E Plans for Overall Program	105 days?	Fri 1/3/03	Thu 5/29/03												

**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	\$ 85,562.00	\$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	\$ 78,177.00	\$85,780.00	OT
1.1.6	\$ 63,391.00	\$0	OT
1.1.7	\$ 44,896.00	\$0	OB
1.1.8	\$ 11,363.00	\$0	OT
1.1.9	\$194,623.00	\$0	OT
1.1.10	\$172,132.00	\$0	OT
1.1.11a	\$ 18,540.00	\$0	OT
1.1.13	\$ 35,251.00	\$0	OT

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