



**SELF GENERATION INCENTIVE PROGRAM
MARKET FOCUSED PROCESS STUDY
APPENDICES**

SUBMITTED TO:

**PG&E M&E PROJECT MANAGER
JENNIFER BARNES
AND M&E COMMITTEE OF THE SGIP WORKING GROUP**

Submitted by:

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August 9, 2007

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**APPENDIX A:
SURVEY AND INTERVIEW GUIDES**

The following survey and interview guides are contained in Appendix A:

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2. Host Customer Survey (Withdrawn/Suspended/Rejected Projects)
3. Host Customer Interview (Active/Completed Projects)
4. Host Customer Interview (Withdrawn/Suspended/Rejected Projects)
5. Non-participant Survey
6. Non-participant Interview

The Summit Blue team included the results from other data collection activities including project developer interviews, program administrator interviews, CEC/CPUC staff interviews, and host customer focus groups in this report. These interview and focus group guides may be found in the SGIP Program Administrator Comparative Assessment Appendices.¹

¹ Cooney, K., P. Thompson, Energy Insights, RLW Analytics. "Self Generation Incentive Program: Program Administrator Comparative Assessment." April 25, 2007.

PG&E SGIP Program M&E

Host Customer Survey (Active/Completed Projects)

Survey Guide (03/30/2007)

SGIP ID:

- a. Respondent's name
- b. Respondent's title
- c. Firm/Organization name
- d. Phone No.

	Date	Time	Contacted			Comments
1						
2						
3						
4						
5						
6						
7						

Num of Calls _____ **Num of Contacts:** _____

Comments: _____

INTRODUCTION

Hello, this is _____ and I'm calling from RLW Analytics. We are an energy consulting firm that has been hired to evaluate California's Self-Generation Incentive Program. We understand you submitted an application to this program, and we would like to ask you some questions about your participation. May I please speak with ___[CONTACT NAME]_____?

If [CONTACT NAME] no longer works for the organization or will not be available during the survey period:

Could I please speak with a person such as the facility manager, building manager, operations manager or chief engineer who would be knowledgeable about your organization's participation in the Self-Generation Incentive Program?

Once contact is on the phone:

S1. Repeat Intro (above)

Are you the person most familiar with your organization’s participation in the program? I’d like to obtain your views on the Program based on your experience to date. This survey is for research purposes only, and will not affect your application status in the program or the incentive you will receive.

Yes _____ (CONTINUE)

No _____ (ASK FOR APPROPRIATE PERSON; RECORD NAME, TITLE, AND PHONE NUMBER; AND REPEAT S1)

NOTE: IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES’ CONTACT INFORMATION – HOWEVER, SEND JENNIFER AN EMAIL WITH THE NAME AND ORGANIZATION OF THE PERSON WHO MAY BE CALLING HER.

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S2. [IF RESPONDENT STILL REFUSES SURVEY, ASK IF YOU MAY HAVE THE REASON FOR REFUSAL – TO DOCUMENT NON-RESPONSE BIAS]

Background

Q1. First, I’d like to confirm some basic information regarding your business and your application. **[Pre-fill fields from project database wherever possible and then confirm.]**

- a. Respondent’s name
- b. Respondent’s title
- c. Firm/Organization name
- d. Physical address where project is located
- e. Primary business activity at this site
- f. Technology employed____ [PV, wind, fuel cell, microturbine, reciprocating engine, gas turbine]
- g. Does the system use renewable or nonrenewable fuel?
- h. Applicant (if different than host customer)
- i. Electric utility
- j. Natural gas utility
- k. Program administrator

Q2. Is your self-generation program administrator and your electric supplier one and the same?

Yes 1

No..... 2
 Don't know 3

Program Awareness, Satisfaction, and Process

Q3. How did you first learn about the incentives that were available to you through the program?
 (ASK OPEN ENDED; PROMPT WITH LIST IF NECESSARY; RECORD ALL THAT APPLY)

Utility representative 1
 Regional Energy Office..... 2
 Equipment/system dealer/vendor 3
 Other users of onsite generation systems 4
 Magazine or newspaper article 5
 Other media (e.g., TV, news press releases) 6
 Professional publications..... 7
 Government agency (CPUC, CEC, or DOE) 8
 Internet search/web site 9
 E-mail notice or advertisement..... 10
 Other (specify : _____)..... 11
 Don't Know/Can't Recall 98

Q4. On a scale of 1 to 5, with 5 meaning "Very important," 1 meaning "Not at all important," and 3 meaning "Neutral," how important was the availability of rebates from the program in deciding whether to go forward with this project?

<u>Not at all</u>					<u>Very</u>
<u>Important</u>					<u>Important</u>
1	2	3	4		5

Q5. Which of the following best describes your involvement in the project?

- We complete and submitted all forms ourselves, and have direct contact with the program administrators 1
- An energy service company, contractor, or some other party is completing and submitting forms, but we are closely involved with the project application. 2
- An energy service company, contractor, or some other party is completing and submitting forms without much help from us 3

Q6. Please rate your overall satisfaction with the program on a scale of 1 to 5, with 5 being “very satisfied,” and 1 being “very dissatisfied.”

<u>Very Dissatisfied</u>		<u>Neutral</u>		<u>Very Satisfied</u>
1	2	3	4	5

Q7. For the next couple of questions we would like to learn more about the level of ease associated with the application process and the onsite generation project itself. Please rate each aspect where “5” means “Very Easy” and “1” means “Very Difficult.” If you cannot rate an aspect, either because you have not reached that stage of the project yet or because a contractor or 3rd party handled that aspect for you, please say “Not Applicable.”

START

RATING

- a. Identifying the right application for onsite power generation at your facility....._____ N/A
- b. making the business case_____ N/A
- c. Choosing the technology_____ N/A
- d. Choosing an energy services company or contractor_____ N/A
- e. Financing the project....._____ N/A
- f. Submitting a reservation application_____ N/A
- g. Obtaining the equipment from the manufacturer_____ N/A
- h. Submitting proof of project advancement to the program_____ N/A
- i. Obtaining any necessary building or siting permits_____ N/A
- j. Obtaining any necessary air quality permits_____ N/A
- k. Obtaining the necessary insurance_____ N/A
- l. Installing the equipment _____ N/A
- m. Achieving reliable operation....._____ N/A

ASK (N-S) for all projects except PV

- n. Working with the electric utility to connect your unit to the utility grid_____ N/A
- o. Meeting the waste heat requirements for the project_____ N/A

- p. Submitting a claim incentive payment N/A
- q. Scheduling with the program administrator for the program’s on-site inspection N/A
- r. Obtaining approval based on the program’s on-site inspection N/A
- s. Obtaining the incentive payment from the program..... N/A

Q8. Were there any unnecessary delays in the project and if so, at what part of the process did this delay occur?

Yes _____

No _____

Ask Q9 for any delays identified in Q8

Q9. In your view, who was primarily responsible for this delay? **[Open Ended]**

Q9_2 Secondary Responsible Party for Delay: _____ (if mentioned record here)

Economics, Status, Performance, and Success of Self-Gen Project

READ: Throughout the remainder of the interview, any reference to “the equipment” refers to the on site generation equipment installed (or being installed) under the program.

- Q10. Who owns the equipment or will own it once/(now that) it is operational?
- Self/Customer 1
 - Installation contractor / ESCO / maintenance firm 2
 - Other (specify : _____) 3
 - Vendor until system is paid off 4
- Q11. Who will handle maintenance and repair for the equipment once it’s completed (or who DOES handle it, for completed projects)?
- Self/Customer 1
 - Installation contractor 2
 - Maintenance firm 3
 - Other (specify: _____) 4
- Q12. How long do you expect it to take this system to pay for itself?
- 6 months or less 1
 - 1 year..... 2
 - 2 years 3

- 3 years 4
 4 years 5
 5 years 6
 6 – 10 years 7
 More than 10 years..... 8
 Don't Know 98
- Q13. Has the onsite generation unit for which you applied to the program begun operating?
 Yes 1
 No.....2 **SKIP TO Q19**
- Q14. Has it continued to operate reliably?
 Yes 1
 No (What problems have arisen? _____)..... 2
- Q15. How has the output of the unit, in kWh per month, compared to your initial expectations for the system?
 Below expectations 1
 Meets expectations 2
 Above expectations 3
 Don't know 4
- Q16. Did you experience any unexpected problems upon system start-up?
 Yes 1
 (Specify: _____)
 No..... 2
- Q17. Have you experienced any unexpected maintenance problems with this system?
 Yes 1
 (Specify: _____)
 No..... 2
- Q18. How frequently is routine maintenance conducted on this system?

The remaining questions are asked of both active and completed projects.

- Q19. There are many possible ways to define whether an onsite generation project is “successful.” Which of the following criteria do you believe are essential to considering a project a success? (Read list, randomizing order and emphasizing “essential”. Record all that apply.)
 System becomes operational 1
 System continues to operate (for how long? _____)..... 2
 System produces the amount of power that was anticipated..... 3

- System achieves payback or positive ROI 4
- System achieves payback or ROI originally anticipated..... 5
- System meets all of our operational specifications 6
- Other (specify: _____) 7

Q20. **[Ask if more than one response to Q20]** Which one of those criteria was most important to your business? **(If necessary, prompt with the items respondent chose in Q22; indicate ONE response.)**

- System becomes operational 1
- System continues to operate (for how long? ____)..... 2
- System produces the amount of power that was anticipated..... 3
- System achieves payback or positive ROI 4
- System achieves payback or ROI originally anticipated..... 5
- System meets all of our operational specifications 6
- Other (specify: _____) 7

Q21. How confident are you that this onsite generation project will be (or is) a success **[do not read list]** Where On a 1 to 5 scale where 5 means very confident and 1 not at all confident.

<u>Not at all</u> <u>Confident</u>		<u>neutral</u>		<u>Very</u> <u>Confident</u>
1	2	3	4	5

Q22. Which of the following success criteria do you believe this system has met or will meet? (Choose all that apply; include any options that the respondent added in Q20.)

- System becomes operational 1
- System continues to operate (for how long? ____)..... 2
- System produces the amount of power that was anticipated..... 3
- System achieves payback or positive ROI 4
- System achieves payback or ROI originally anticipated..... 5
- System meets all of our operational specifications 6
- Other (specify: _____) 7

Drivers and Barriers to Self-Generation

Q23. Please indicate on a scale of 1 to 5 where 5 is very influential how much each of the following factors influenced your decision to purchase and use the onsite generation technology you chose. (Rotate response options. Record one response for each factor)

<u>Factor</u>	<u>Rating</u>				
a. Wanted to reduce utility bills	1	2	3	4	5
b. Wanted to reduce our peak demand	1	2	3	4	5
c. Wanted a backup system to improve the overall reliability of our electricity supply	1	2	3	4	5
d. Concern for the environment	1	2	3	4	5
e. Energy supply independence	1	2	3	4	5
f. Improve our business image— green marketing	1	2	3	4	5
g. Provide technical demonstration	1	2	3	4	5

Q24. **[Ask only for PV projects]** In 2007 and beyond PV systems over 30kW will now be funded through the California Solar Initiative (CSI). Based on what you have heard about the CSI, do you think this program will be an improvement on the prior program for PV? (If NO then record comments provided).

Yes	1
No.....	2 Why:
Don't know	3

Q25. **[Ask only for PV projects]** Has this shift to CSI affected you in any way?

Yes (How?_____)	1
No.....	2

Q26. On a scale of 1 to 10, where 10 means “Very likely to install” and 1 means “Not at all likely to install,” how likely is it that your organization will install additional onsite power generation equipment for this facility in the next five years? Please do not count generation equipment that would be used solely for backup or emergency power.

Very Likely to Install	10
9.....	9
8.....	8
7.....	7
6.....	6
5.....	5

4..... 4
 3..... 3
 2..... 2
 Not At All Likely to Install..... 1 **SKIP to 28**

Q27. If you were to install additional onsite power generation (other than backup or emergency generation) in the next five years, what is the longest payback period you would be willing to accept? **(PROMPT IF NECESSARY– RECORD ONE RESPONSE)**

6 months or less 1
 1 year..... 2
 2 years 3
 3 years 4
 4 years 5
 5 years 6
 6 – 10 years 7
 More than 10 years..... 8

Q28. Which of the following would be significant barriers to your organization installing additional onsite power generation? **(Read list; choose all that apply)**

No additional loads to be served 1
 Natural gas prices 2
 Equipment prices..... 3
 Experience with the current system 4
 No more space/room for generation..... 5
 Environmental concerns..... 6
 Difficulty in working with utility 7
 Other (specify : _____) 8

Q29. [Ask if multiple answers on Q28] For those barriers you have previously mentioned, which barrier would be the most significant? (If necessary, read options chosen in Q28; choose one)

No additional loads to be served 1
 Natural gas prices 2
 Equipment prices..... 3
 Experience with the current system 4
 No more space/room for generation..... 5
 Environmental concerns..... 6
 Difficulty in working with utility 7
 Other (specify : _____) 8

Q30. This concludes all the questions that I have we want to thank you for your time and consideration. We would like to invite you to participate in a more in-depth, follow-up interview that would be more like a conversation than a formal survey. This interview would last about 25 minutes and it

will be conducted by an analyst with Energy Insights, one of the firms participating in this research. It would be conducted in the next few weeks or at your convenience. In recognition of the additional time commitment, we would provide a \$100 donation to the charity of your choice once the interview is complete.

May we schedule you for this follow-on interview?

- Yes 1
- No..... 2 **Thank and terminate**
- Yes, but I can't commit to day & time 3

THANK RESPONDENT FOR THEIR TIME TODAY AND THEIR AGREEMENT TO DO AN IN-DEPTH INTERVIEW

Schedule appointment for interview. Verify:

Date and time (PDT), _____ Phone No. _____ & Email address _____

PG&E SGIP Program M&E

Host Customer Survey (Withdrawn/Suspended/Rejected Projects)

Survey Guide (03/30/2007)

SGIP ID:

- a. Respondent's name
- b. Respondent's title
- c. Firm/Organization name
- d. Phone No.

	Date	Time	Contacted			Comments
1						
2						
3						
4						
5						
6						
7						

Num of Calls _____ Num of Contacts: _____

Comments: _____

Introduction

Hello, this is _____ and I'm calling from RLW Analytics. We are an energy consulting firm that has been hired to evaluate California's Self-Generation Incentive Program. We understand you submitted an application to this program, and we would like to ask you some questions about your participation. May I please speak with ___[CONTACT NAME]_____?

If [CONTACT NAME] no longer works for the organization or will not be available during the survey period:

Could I please speak with a person such as the facility manager, building manager, operations manager or chief engineer who would be knowledgeable about your organization's participation in the Self-Generation Incentive Program?

Once contact is on the phone:

S1. Repeat Intro (above)

Are you the person most familiar with your organization's participation in the program? I'd like to obtain your views on the Program based on your experience to date. This survey is for research purposes only, and will not affect your application status in the program or the incentive you will receive.

Yes _____ (CONTINUE)

No _____ (ASK FOR APPROPRIATE PERSON; RECORD NAME, TITLE, AND PHONE NUMBER; AND REPEAT S1)

NOTE: IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES' CONTACT INFORMATION – HOWEVER, SEND JENNIFER AN EMAIL WITH THE NAME AND ORGANIZATION OF THE PERSON WHO MAY BE CALLING HER:

Jennifer Barnes
Senior Regulatory Analyst
Pacific Gas & Electric Company
415-973-2797
j5b2@pge.com

S2. [IF RESPONDENT STILL REFUSES SURVEY, ASK IF YOU MAY HAVE THE REASON FOR REFUSAL – TO DOCUMENT NON-RESPONSE BIAS]

Background and Nature of Withdrawal/Suspension/Rejection

1. First, I'd like to confirm some basic information regarding your business and your application. **[Pre-fill fields from project database wherever possible and then confirm.]**
 - a. Respondent's name _____
 - b. Respondent's title _____
 - c. Firm/Organization name _____
 - d. Physical address where project is located _____

- e. Primary business activity at this site _____
- f. Technology employed ___[PV, wind, fuel cell, microturbine, reciprocating engine, gas turbine]
- g. Does the system use renewable or nonrenewable fuel?
- h. Applicant (if different than host customer) _____
- i. Electric utility _____
- j. Natural gas utility _____
- k. Program administrator _____
- l. Zip code where project is located: _____

Note that all references to the Program in this survey refer to the Self-Generation Incentive Program.

- 2. Are the program administrator and your electric utility one and the same?
 - Yes 1
 - No 2

- 3. Our records indicate that [you withdrew from the program / your application has been suspended / your application was rejected]. Is this correct?
 - Yes 1
 - No (**Clarify which category they believe they fall into, and ask remaining questions based on that**) 2

- 4. What parts of the application process did you complete before the [*withdrawal/suspension/rejection*]? Did you...?
 - Submit a Reservation Request (but didn't receive confirmation of reservation) 1
 - Receive a Conditional Reservation Notice Letter from Administrator 2
 - Submit Proof of Project Advancement (but was not approved by Administrator) 3
 - Submit Proof of Project Advancement (which was approved by Administrator) 4
 - Submit claim for incentive payment; were awaiting on-site verification 5
 - On-site inspection/verification was conducted 6
 - Don't Know/Refused 88/99

- 5. **[WITHDRAWALS ONLY] Why did you withdraw your application? (Ask open-ended; record all that apply)**
 - System cost too high, even with incentive 1
 - Permitting issues (specify: _____) 2
 - Problems in obtaining or installing equipment (specify: _____) 3
 - Problems in obtaining project financing 4
 - Problems with the application process (specify: _____) 5
 - Changes in the program (specify: _____) 6
 - My system did not qualify for the program (Why not? _____) 7

My system was only for emergency backup generation 8
 The internal priorities of my organization changed 9
 To avoid the hassle of owning, operating, or maintaining the DG system 10
 We were wait listed and ultimately concluded funding would not be available..... 11
 Increased uncertainty of the investment (What changed? _____) 12
 Other (specify: _____) 13
 Don't Know 14

6. **[WITHDRAWALS ONLY – Ask if multiple responses to Q5]** What was the primary reason that you withdrew? **(Read options chosen in Q5; record one response)**

7. **[SUSPENSIONS ONLY]** Our records show that your application has been suspended. What reason did the program administrator give you for the suspension? **(Ask open-ended; record all that apply)**

System size may be too large for the program..... 1
 System size may be too small for the program 2
 Having trouble obtaining permits (Which? _____) 3
 Having trouble meeting waste heat standards (Levels 2 and 3 only)..... 4
 Doubts about whether system will be used for more than just backup..... 5
 Missed deadlines (Which? _____)..... 6
 Other (specify: _____) 7
 Don't Know 8

8. **[REJECTIONS ONLY]** Our records show that your application was rejected. What reason did the program administrator give you for the rejection? **(Ask open-ended; record all that apply)**

System size was too large for the program 1
 System size was too small for the program 2
 Couldn't obtain permits (Which? _____) 3
 Couldn't meet waste heat standards (Levels 2 and 3 only)..... 4
 System was to be used solely for backup generation..... 5
 Missed deadlines (Which? _____)..... 6
 Other (specify: _____) 7
 Don't Know 8

9. Are you still planning on installing the system anyway, despite the fact that your application has been *[withdrawn/suspended/rejected]*?

Yes 1
 No 2
 Don't know 3

10. **[If “yes” on Q9]** Please rate the likelihood that your project will be completed on a scale of 1 to 5, with 5 meaning “Very likely to be completed” and 1 meaning “Very unlikely to be completed.” **(If already installed, enter “6.”)**

<u>Very Unlikely</u>				<u>Very Likely</u>		<u>Already Installed</u>
1	2	3		4	5	6

Program Awareness, Satisfaction, and Process

11. How did you first learn about the incentives that were available to you through the program? (Ask open ended; prompt with list if necessary; record all that apply)

Utility representative.....	1
Regional Energy Office	2
Equipment/system dealer/vendor	3
Other users of onsite generation systems	4
Print advertisements	5
Magazine or newspaper article	6
Radio advertisement.....	7
Other media (e.g., TV, news press releases).....	8
Professional publications	9
Insert or flyer in your electric bill	10
Government agency (CPUC, CEC, or DOE).....	11
Internet search/web site.....	12
E-mail notice or advertisement	13
Other (specify: _____)	14

12. On a scale of 1 to 5, with 5 meaning “Very important,” 1 meaning “Not at all important,” and 3 meaning “Neutral,” how important was the availability of rebates from the program in your initial decision to go forward with this project?

<u>Not at all Important</u>					<u>Very Important</u>
1	2	3	4		5

13. Please tell me which of these three scenarios most closely describes your organization’s involvement in the application process:

We are completing and submitting all the application forms ourselves, and have direct contact with the program administrators 1

An energy service company, contractor, or some other party is completing and submitting the application forms, but we are closely involved with the project application..... 2

An energy service company, contractor, or some other party is completing and submitting the application forms without much help from us 3

14. Please rate your overall satisfaction with the program on a scale of 1 to 5, with 5 being “very satisfied,” and 1 being “very dissatisfied.”

Very
Dissatisfied

Very
Satisfied

1

2

3

4

5

15. For the next couple of questions we would like to learn more about the level of ease associated with the application process and the onsite generation project itself. Please rate each aspect where “5” means “Very Easy” and “1” means “Very Difficult.” If you cannot rate an aspect, either because you have not reached that stage of the project yet or because a contractor or 3rd party handled that aspect for you, please say “Not Applicable.”

[Ask Q15o for Level 2 and Level 3 projects only]

START

RATING

- a. Identifying an appropriate application or use for onsite power generation at your facility_____ N/A
- b. Deciding to do the project/making the business case_____ N/A
- c. Choosing the specific technology to use_____ N/A
- d. Choosing an energy services company or contractor to work with....._____ N/A
- e. Financing the project....._____ N/A
- f. Submitting a reservation application to the program....._____ N/A
- g. Obtaining the onsite generation equipment from the manufacturer_____ N/A
- h. Submitting proof of project advancement to the program....._____ N/A
- i. Obtaining any necessary building or siting permits....._____ N/A
- j. Obtaining any necessary air quality permits_____ N/A
- k. Obtaining the necessary insurance_____ N/A
- l. Installing the onsite generation equipment....._____ N/A
- m. Achieving reliable onsite generation equipment operation_____ N/A
- n. Working with the electric utility to connect your unit to the utility grid....._____ N/A
- o. Meeting the waste heat requirements for the project_____ N/A
- p. Submitting a claim to the program for incentive payment_____ N/A

- q. Scheduling with the program administrator for the program’s on-site inspection..... N/A
- r. Obtaining approval based on the program’s on-site inspection N/A
- s. Obtaining the incentive payment from the program..... N/A

Ask Q16 for anything rated 1 or 2 on Q15

16a to 16s. What made [INSERT APPROPRIATE STEM FROM Q15] difficult?

17. Were there any unnecessary delays in the onsite generation project or the program application process?

Yes 1

No..... 2 **SKIP TO Q20**

18. At what part of the process did this delay occur? **[Prompt with stages from Q15 as necessary. Record all that apply.]**

Ask Q19 for any delays identified in Q18

19a to 19s. In your view, who was primarily responsible for this delay? **[Rotate order]**

Q19_2 Secondary: _____ (if mentioned record here)

The program administrator 1

Your energy services company or contractor 2

Your firm or organization 3

The equipment manufacturer 4

The electric utility’s interconnection department5

The permitting agencies (air, building, etc.) 6

Other (specify: _____) 7

Economics and Success of Self-Gen Project

READ: Throughout the remainder of the interview, any reference to “this onsite generation equipment” refers to the equipment that was to have been installed under the program.

20. Who owned this onsite generation equipment (or would have owned it once it was operational)?
- Self/Customer 1
- Installation contractor / ESCO / maintenance firm..... 2
- Other (specify: _____) 3
21. Who would have handled maintenance and repair for your system, once it was completed?
- Self/Customer 1
- Installation contractor 2
- Maintenance firm 3
- Other (specify: _____) 4
- 22a. How long did you originally expect it to take this system to pay for itself? (Read list; record one response. If respondent cannot answer the payback question, try to get them to answer Q22b.)
- 6 months or less 1
- 1 year 2
- 2 years 3
- 3 years 4
- 4 years 5
- 5 years 6
- 6 – 10 years 7
- More than 10 years 8

Ask only if no response to Q22a

- 22b. What percentage of your electric bill did you originally expect to be offset by this onsite generation system in a typical month? (Approximations are fine.)
- _____ % or 98 (Don't Know)
23. There are many possible ways to define whether an onsite generation project is “successful.” Which of the following criteria do you believe are essential to considering a project a success? (Read list, randomizing order and emphasizing “essential”. Record all that apply.)
- System becomes operational..... 1
- System continues to operate (for how long? ____)..... 2

- System produces the amount of power that was anticipated 3
- System achieves payback or positive ROI..... 4
- System achieves payback or ROI originally anticipated 5
- System meets all of our operational specifications 6
- Other (specify:_____) 7

24. **[Ask if more than one response to Q23]** For those that your previously mentioned, which criterion is the most important? **(If necessary, prompt with the items respondent chose in Q23; indicate ONE response.)**

- System becomes operational..... 1
- System continues to operate (for how long?____)..... 2
- System produces the amount of power that was anticipated 3
- System achieves payback or positive ROI..... 4
- System achieves payback or ROI originally anticipated 5
- System meets all of our operational specifications 6
- Other (specify:_____) 7

25. How confident are you that this onsite generation project would have been a success by the definition you provided above? Rating it on a scale of 1 to 5 where 5 means very confident and 1 not at all confident.

<u>Not at all</u> <u>Confident</u>					<u>Very</u> <u>Confident</u>
1	2	3	4	5	

26. Which of the following success criteria do you believe this system would have met? (Choose all that apply; include any options that the respondent added in Q23.)

- System becomes operational..... 1
- System continues to operate (for how long?____)..... 2
- System produces the amount of power that was anticipated 3
- System achieves payback or positive ROI..... 4
- System achieves payback or ROI originally anticipated 5
- System meets all of our operational specifications 6

Other (specify: _____) 7

27. Which of the following success criteria do you believe this system would not have met? (Choose all that apply; include any options that the respondent added in Q23.)

System becomes operational..... 1

System continues to operate (for how long?____)..... 2

System produces the amount of power that was anticipated 3

System achieves payback or positive ROI..... 4

System achieves payback or ROI originally anticipated 5

System meets all of our operational specifications..... 6

Other (specify: _____) 7

Drivers and Barriers to Self-Generation

28. Please indicate how much each of the following factors influenced your original decision to purchase and use the onsite generation technology you chose, using a scale of 1 to 5 where 5 is very influential. **(Record one response for each factor)**

Factor	Rating				
a. Wanted to reduce utility bills	1	2	3	4	5
b. Wanted to reduce our peak demand	1	2	3	4	5
c. Wanted a backup system to improve the overall reliability of our electricity supply	1	2	3	4	5
d. Concern for the environment	1	2	3	4	5
e. Energy supply independence	1	2	3	4	5
f. Improve our business image— green marketing	1	2	3	4	5
g. Provide technical demonstration	1	2	3	4	5
h. Other: _____	1	2	3	4	5

29. **[Ask only for PV projects]** In 2007 and beyond PV systems over 30kW will now be funded through the California Solar Initiative (CSI). Based on what you have heard about the CSI, do you think this program will be an improvement on the prior program for PV?

Yes 1

No.....2

Don't know 3

30. **[Ask only for PV projects]** Has this shift to CSI affected you in any way?

Yes (How? _____) 1

No.....2

31. On a scale of 1 to 10, where 10 means “Very likely to install” and 1 means “Not at all likely to install,” how likely is it that your organization will install other onsite power generation equipment for this facility in the next five years? Please do not count generation equipment that would be used solely for backup or emergency power.

Very Likely to Install..... 10

9 9

8 8

7 7

6 6

5 5

4 4

3 3

2 2

Not At All Likely to Install..... 1

32. If you were to install additional onsite power generation (other than backup or emergency generation) in the next five years, how influential would each of the following factors be in making that decision? Please rate the influence of each factor on a scale of 1 to 5, with 5 being “very influential,” and 1 being “not influential at all.” **(Record one response for each factor)**

Factor	Rating				
a. Wanted to reduce utility bills	1	2	3	4	5
b. Wanted to reduce our peak demand	1	2	3	4	5
c. Wanted a backup system to improve the overall reliability of our electricity supply	1	2	3	4	5
d. Concern for the environment	1	2	3	4	5
e. Energy supply independence	1	2	3	4	5
f. Improve our business image— green marketing	1	2	3	4	5
g. Provide technical demonstration	1	2	3	4	5
h. Other: _____	1	2	3	4	5

33. If you were to install additional onsite power generation (other than backup or emergency generation) in the next five years, what is the longest payback period you would be willing to accept? **(READ LIST – RECORD ONE RESPONSE)**

- 6 months or less 1
- 1 year 2
- 2 years 3
- 3 years 4
- 4 years 5
- 5 years 6
- 6 – 10 years 7
- More than 10 years 8

34. Which of the following would be significant barriers to your organization installing additional onsite power generation? (**Read list; choose all that apply**)

- No additional loads to be served..... 1
- Natural gas prices..... 2
- Equipment prices 3
- Experience with the prior project/application..... 4
- No more space/room for generation 5
- Environmental concerns 6
- Difficulty in working with utility..... 7
- Other (specify: _____) 8

35. **[Ask if multiple answers on Q33]** For those barriers you have previously mentioned, which barrier would be the most significant? (**If necessary, read options chosen in Q31; choose one**)

- No additional loads to be served..... 1
- Natural gas prices..... 2
- Equipment prices 3
- Experience with the prior project/application..... 4
- No more space/room for generation 5
- Environmental concerns 6
- Difficulty in working with utility..... 7
- Other (specify: _____) 8

36. How important would the availability of rebates such as the one you are receiving under the program be in deciding whether to install additional onsite generation in the future? Rating on a scale of 1 to 5 where 5 is very important.

Not at all
Important

Very
Important

1

2

3

4

5

37. We appreciate your time and cooperation today. Because understanding the role that various factors play in making onsite generation projects successful is so important, we invite you to participate in a more in-depth, follow-up interview to be scheduled in the next few weeks. This interview would last between 20 and 30 minutes. It will be conducted by a senior analyst with Energy Insights, one of the firms participating in this research. It would be structured less like a formal survey and more like a conversation about your experiences with the program. In recognition of the additional time commitment, we would provide a \$100 donation to the charity of your choice once the interview is complete.

May we schedule you for this follow-on interview?

Yes 1

No..... 2

Thank and terminate

Schedule appointment for interview. Verify:

- Date and time (PDT)
- Phone number to call
- Email address (for reminder email the day before the interview)

THANK RESPONDENT FOR THEIR TIME TODAY AND THEIR AGREEMENT TO DO AN IN-DEPTH INTERVIEW.

PG&E SGIP Program M&E

Host Customer Interview (Active/Completed)

Interview Guide (04/11/2007)

SGIP Project number: _____

Respondent name: _____

Respondent title: _____

Company name: _____

Date and time of interview: _____

Interviewer: _____

Technology: _____

Taped? (circle one) **YES** **NO**

Notes to interviewers

This topic guide is designed to help you to complete an approximately 30-minute in-depth interview (IDI). As you know, the qualitative research process is about *discovery*, not coverage. As such, we expect you to cover all areas of investigation, but, if necessary, to focus on those questions that seem most relevant to each respondent or those that develop new and/or useful information. Additionally, you are not required to ask questions in the order they are given herein; based on your experience in qualitative interviewing, allow the flow of the conversation to dictate the order in which you ask them.

Background

Energy Insights is part of the Summit Blue Consulting team that is evaluating the California SGIP. The evaluation is focused on systems installed under the SGIP in the service areas of PG&E, SCE, SCG, and SDG&E. A Working Group (consisting of representatives from the Program Administrators, SDG&E, and the CEC staff associated with the Emerging Renewable Program, and the Energy Division of the CPUC) is charged with the evaluation of the program through their Measurement and Evaluation subcommittee led by Jennifer Barnes of PG&E.

Tape Recording

If you tape-record the interview, you must obtain explicit permission from the respondent.

Confidentiality

If respondents ask, tell them yes, their answers will remain confidential.

Introduction

[NOTE: RLW will have already qualified the respondent for this IDI prior to this point. Please have those survey responses in front of the interviewer so that we can simply confirm and probe for more detail. Many of these questions are addressed in the survey.]

Hello, my name is _____ and I work for Energy Insights. I am calling on behalf of the California Public Utilities Commission. We are conducting interviews to follow up on some of the issues raised in the survey on the Self-Generation Incentive Program you recently completed. This interview is for research purposes, and will not affect the application status of the project(s) you are involved with.

NOTE: IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES' CONTACT INFORMATION, BUT SEND JENNIFER AN EMAIL TO ALERT HER SHE MAY BE GETTING A CALL:

Jennifer Barnes, Senior Regulatory Analyst
Pacific Gas & Electric Company
415-973-2797
j5b2@pge.com

Taping (optional)

With your permission, I'll record the interview to avoid slowing down our conversation by taking all written notes. I will not use the tapes for anything other than note taking and analysis. (*NOTE TO INTERVIEWER: Taping is optional, but you must obtain consent before doing so.*)

I. Process Questions

First I would like to discuss the process of the Self-Generation Incentive Program.

1. **[Ask for any aspects of the project that they rated as 1 or 2 (very difficult or difficult) on survey Q7]**
 - 1.1 What made this difficult?
 - 1.2 What would have helped or made it easier?
 - 1.3 Are there things the Program Administrator could have done to make this easier?
2. **[Ask for any unnecessary delays the respondent attributed to the PA on survey Q9]**
 - 2.1 Tell me more about this delay. What happened?
 - 2.2 What could have been done to avoid the delay or resolve it sooner?
3. In your case, do you think the initial (60, 90 or 240-day, depending on PY and public entity) deadline provided sufficient time for providing proof of project advancement?

4. Which requirement(s) of the proof of project advancement made it difficult to meet the deadline? **[SELECT ALL THAT APPLY; DO NOT READ OPTIONS]**
- Submitting an air pollution permit application
 - Submitting an electrical interconnection application
 - Ordering the generating equipment
 - Obtaining proof of insurance
 - Providing waste heat recovery calculations
 - Providing project cost breakdown
 - Other
5. Do you think the 1-year (or 18 months, depending on PY and public entity) deadline is sufficient for completing the installation of your system or a system similar to yours?
- 5.1 **[If no]** Why is the deadline hard to meet? **[SELECT ALL THAT APPLY; DO NOT READ OPTIONS]**
- Takes long time for manufacturer to ship equipment
 - Type of equipment impacted by long lead times
 - Installation delays by the contractor
 - Air pollution permitting issues
 - Other local permit issues (Conditional Use Permit, Negative Declaration, etc.)
 - Building Permit issues
 - Meeting waste heat requirements
 - Interconnection with utility
 - Financing the purchase/installation of equipment
 - Other (specify) _____
6. **[If public entity]** Do you find the process too complex for a public entity?
- 6.1 **[If yes]** What part of the process is the most difficult?
7. **[If private entity]** Do you find the process too complex for a businesses like yours?
- 7.1 **[If yes]** What part of the process is the most difficult?

APPLICATION FEE

8. **[If participant applied after July 2005]** Do you have any issues with the application fee?
9. Do you think the application fee stops others from applying for funding through the SGIP?

ELIGIBILITY

10. When considering whether to participate in SGIP, did anyone at your business have initial concerns about eligibility for the program?
 - 10.1 **[If yes]** What were those concerns?
 - 10.2 How were those concerns addressed?
11. Are there other technologies that you think would make a good fit for the SGIP that are not currently eligible?

COGEN **[Ask of participants that installed a cogen system (any non-renewable system)]**

12. Did natural gas prices affect your decision to apply to the program?
13. Do natural gas prices today affect the operating hours of your system?
14. When applying to the program, did you encounter difficulty in meeting the waste heat and/or overall system efficiency requirements?
 - 14.1 Do you currently have any (or have you previously had any) problems with waste heat utilization after the system became operational?
 - 14.1a **[If yes]** Please elaborate.
15. Have you had any heat exchanger failures?
16. Would any current market factors affect your company's decision to install a cogen system? How about another person's decision to install a cogen system?

PERFORMANCE BASED INCENTIVES/RENEWABLE ENERGY CREDITS

17. Imagine that, instead of a set incentive amount provided up front, you were offered an incentive based on the performance of your system that would be greater than the current up-front incentives (assuming the project performed as expected), but that you would not receive the incentive until after the project was installed and operating. Would you prefer that greater performance incentive rather than an up-front dollar-per-watt-installed incentive? Why?
18. Did you include the potential value of renewable energy credits (also called green tags) associated with your SGIP project(s) in your contracts or negotiations with any parties involved?
 - 18.1 **[If yes]** Did you keep the RECs or did you sign them over to your developer?
 - 18.2 **[If they kept the RECs]** Do you plan to participate in WREGIS (Western Renewable Energy Generation Information System to be launched in June 2007)?

INCENTIVE LEVELS AND EQUIPMENT COSTS

19. In the previous survey, you mentioned that it would likely take **[INSERT ANSWER FROM SURVEY Q15A]** for your system to pay for itself. Do you feel that the current incentive levels adequately cover enough of the equipment costs in order for the pay back period to be reasonable for your company/organization?
20. Do you feel like equipment cost is increasing or decreasing over time?
21. Would a declining incentive amount over the next several years for all the technologies in the program affect your participation in future projects? In what way? (e.g., deciding to not participate; accelerating projects to get a better incentive; increasing the size of the project to maximize the incentive.)

APPLICATION MATERIALS AND OTHER

22. If you reviewed the program application materials, were these materials and instructions clear?
 - 22.1 Please explain anything that wasn't clear to you.
 - 22.2 Do you have any suggestions for making them better?
23. Have you looked at the Program Handbook?
 - 23.1 **[If yes]** Was it helpful?
 - 23.2 Please explain anything that wasn't clear to you.
 - 23.3 Do you have any suggestions for making it better?
24. Did you experience any delays with the utility interconnection process?
 - 24.1 **[If yes]** please describe.
25. **[For all project types EXCEPT PV and wind]** Were you aware that your system might be assessed nonbypassable charges for departing load?

[Nonbypassable charges involve costs that have historically been included in bundled service bills but are now separately listed as line items, and include charges for items such as public purpose programs. A customer's date of departure and the size and type of technology installed determine whether or not the customer will be exempt from nonbypassable charges.]

- 25.1 **[If yes]** Have you received your first bill?

- 25.1a **[If yes]** Is it what you expected?

[If no] Please describe the difference.

II. Retention Questions

Now I would like to discuss the operation of your system.

- 26. Is the on-site generator system still installed?
 - 26.1 **[If no]** When and why was it removed?
- 27. Is the system operational?
 - 27.1 **[If no]** When and why did it break?
- 28. Is the system capable of being operated, but not currently operating?
 - 28.1 **[If no]** Why is it not operating?
- 29. **[If operating]** Is the system operating at capacity?
 - 29.1 **[If no]** Why not?
- 30. **[If operating]** Does the system operate reliably?
 - 30.1 **[If no]** Please elaborate.
- 31. **[If ever operated]** Did the system have any start-up problems?
 - 31.1 **[If yes]** Please explain.
- 32. Has any part of the system been replaced since initial operation, or has the unit required any repair?
 - 32.1 **[If yes]** Please describe.
 - 32.2 Was the repair or replacement done under warranty?
- 33. **[If operating]** How long do you expect that you will operate the system?
- 34. **[If operating]** Does the system require routine maintenance?
 - 34.1 **[If yes]** please describe.
 - 34.2 Do you perform or have someone else perform the maintenance?

[Ask Q35 for PV projects]

- 35.1 Have you had any inverter problems? **[If yes]** Please explain.
- 35.2 Have you had any panel or cell problems? **[If yes]** Please explain.

[Ask Q36 for renewable-fueled projects]

- 36.1 Have you any fuel quality problems? **[If yes]** Please explain.
- 36.2 Have you had any engine or turbine problems? **[If yes]** Please explain.

-
37. Do you feel the system was well designed?
37.1 **[If no]** Please explain.
38. Do you feel the system as manufactured was basically high quality?
38.1 **[If no]** Please elaborate.
39. Do you feel the installation of the system was of high quality?
39.1 **[If no]** Please elaborate.
40. Do you feel the system is properly sized for your facility?
40.1 **[If no]** Please explain.

III. Market Study Questions

Now I would like to focus on your reasons for installing an on-site generation project and the overall market for on-site generation.

41. What prompted you to first consider this on-site generation project?
42. What were the primary drivers for this project (refer back to survey answers as needed, but try to capture in their own words).
42.1 Why did you choose this particular technology?
42.2 Did the specific application in some sense dictate the technology?
How or why?
43. Do you think this project has been successful? Cost-effective?
44. If so, what made it succeed or be cost-effective? What factors did you have going in your favor on this project? If not, what prevented it from succeeding or being cost-effective?
45. Has your experience with this project made you more or less likely to do additional on-site generation projects? Why?
- 45.1. What would you do differently next time (or if you had the chance to do this project over from the beginning)?
45.2. Would your expectations be different next time? How so?
46. What advice would you have for a business like yours that was considering on-site power generation?

[Ask Q47 if respondent has completed or attempted projects at different sites in California.]

- 47.1 If you have completed or tried to complete more than one project, are there any regional issues that affected these project in different ways? (e.g. air emissions regulations, labor or materials costs, availability of knowledgeable contracting help.)
- 47.2 How did these regional issues affect the project? [e.g. project costs, timing, etc.]

Closing

Thank you very much for your time today. As the RLW interviewer mentioned when they asked if you would be willing to do this follow up interview, we would like to make a \$100 donation to a charity of your choice as a token of our appreciation for your help with this research. To whom should we make out the check?

Make check to: _____

Address: _____

City/State/Zip: _____

Finally, If I have a clarification question as I'm reviewing my notes, is it alright to call you back or email you?

- Yes
- No

Thanks again, and have a great day.

PG&E SGIP Program M&E

Host Customer Interviews (Withdrawn/Suspended/Rejected)

Interview Guide (04/11/2007)

SGIP Project number: _____

Respondent name: _____

Respondent title: _____

Company name: _____

Date and time of interview: _____

Interviewer: _____

Technology: _____

Taped? (circle one)

YES

NO

Notes to interviewers

This topic guide is designed to help you to complete an approximately 30-minute in-depth interview (IDI). As you know, the qualitative research process is about *discovery*, not coverage. As such, we expect you to cover all areas of investigation, but, if necessary, to focus on those questions that seem most relevant to each respondent or those that develop new and/or useful information. Additionally, you are not required to ask questions in the order they are given herein; based on your experience in qualitative interviewing, allow the flow of the conversation to dictate the order in which you ask them.

Background

Energy Insights is part of the Summit Blue Consulting team that is evaluating the California SGIP. The evaluation is focused on systems installed under the SGIP in the service areas of PG&E, SCE, SCG, and SDG&E. A Working Group (consisting of representatives from the Program Administrators, SDG&E, and the CEC staff associated with the Emerging Renewable Program, and the Energy Division of the CPUC) is charged with the evaluation of the program through their Measurement and Evaluation subcommittee led by Jennifer Barnes of PG&E.

Tape Recording

If you tape-record the interview, you must obtain explicit permission from the respondent.

Confidentiality

If respondents ask, tell them yes, their answers will remain confidential.

Introduction

[NOTE: RLW will have already qualified the respondent for this IDI prior to this point. Please have those survey responses in front of the interviewer so that we can simply confirm and probe for more detail. Many of these questions are addressed in the survey.]

Hello, my name is _____ and I work for Energy Insights. I am calling on behalf of the California Public Utilities Commission. We are conducting interviews to follow up on some of the issues raised in the survey on the Self-Generation Incentive Program you recently completed. This interview is for research purposes, and will not affect the application status of the project(s) you are involved with.

NOTE: IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES' CONTACT INFORMATION, BUT SEND JENNIFER AN EMAIL TO ALERT HER SHE MAY BE GETTING A CALL:

Jennifer Barnes, Senior Regulatory Analyst
Pacific Gas & Electric Company
415-973-2797
j5b2@pge.com

Taping (optional)

With your permission, I'll record the interview to avoid slowing down our conversation by taking all written notes. I will not use the tapes for anything other than note taking and analysis. **(NOTE TO INTERVIEWER: Taping is optional, but you must obtain consent before doing so.)**

I. Confirm Project Status

Before beginning, make sure you understand the reason the project was withdrawn, suspended, or rejected; and whether or not the customer continued with the project without SGIP funding. Summarize your understanding from their survey responses, and give them a chance to verify, correct, or comment.

II. Process Questions

Next I would like to discuss the process of the Self-Generation Incentive Program.

1. **[Ask for any aspects of the project that they rated as 1 or 2 (very difficult or difficult) on survey Q7]**
 - 1.1 What made this difficult?
 - 1.2 What would have helped or made it easier?
 - 1.3 Are there things the Program Administrator could have done to make this easier?
2. **[Ask for any unnecessary delays the respondent attributed to the PA on survey Q9]**
 - 2.1 Tell me more about this delay. What happened?
 - 2.2 What could have been done to avoid the delay or resolve it sooner?

[For the remaining questions in this section, determine what stage of the application or project they achieved before withdrawal/suspension/rejection (based on survey responses) and only ask the questions relevant to that or earlier stages]

3. In your case, do you think the initial (60, 90 or 240-day, depending on PY and public entity) deadline provided sufficient time for providing proof of project advancement?

4. Which requirement(s) of the proof of project advancement made it difficult to meet the deadline?
[SELECT ALL THAT APPLY; DO NOT READ OPTIONS]
 - Submitting an air pollution permit application
 - Submitting an electrical interconnection application
 - Ordering the generating equipment
 - Obtaining proof of insurance
 - Providing waste heat recovery calculations
 - Providing project cost breakdown
 - Other

5. Do you think the 1-year (or 18 months, depending on PY and public entity) deadline is sufficient for completing the installation of your system or a system similar to yours?
 - 5.1 [If no] Why is the deadline hard to meet? **[SELECT ALL THAT APPLY; DO NOT READ OPTIONS]**
 - Takes long time for manufacturer to ship equipment
 - Type of equipment impacted by long lead times
 - Installation delays by the contractor
 - Air pollution permitting issues
 - Other local permit issues (Conditional Use Permit, Negative Declaration, etc.)
 - Building Permit issues
 - Meeting waste heat requirements
 - Interconnection with utility
 - Financing the purchase/installation of equipment
 - Other (specify) _____

6. **[If public entity]** Do you find the process too complex for a public entity?
 - 6.1 **[If yes]** What part of the process is the most difficult?
7. [If private entity] Do you find the process too complex for a businesses like yours?
 - 7.1 **[If yes]** What part of the process is the most difficult?

APPLICATION FEE

8. **[If participant applied after July 2005]** Do you have any issues with the application fee?
9. Do you think the application fee stops others from applying for funding through the SGIP?

ELIGIBILITY

10. When considering whether to participate in SGIP, did anyone at your business have initial concerns about eligibility for the program?
 - 10.1 **[If yes]** What were those concerns?
 - 10.2 How were those concerns addressed?
11. Are there other technologies that you think would make a good fit for the SGIP that are not currently eligible?

COGEN **[Ask of participants that installed a cogen system (any non-renewable system)]**

12. Did natural gas prices affect your decision to apply to the program?
13. Do natural gas prices today affect the operating hours of your system?
14. When applying to the program, did you encounter difficulty in meeting the waste heat and/or overall system efficiency requirements?
 - 14.1 Do you currently have any (or have you previously had any) problems with waste heat utilization after the system became operational?
 - 14.1a **[If yes]** Please elaborate.
15. Have you had any heat exchanger failures?
16. Would any current market factors affect your company's decision to install a cogen system? How about another person's decision to install a cogen system?

PERFORMANCE BASED INCENTIVES/RENEWABLE ENERGY CREDITS

17. Imagine that, instead of a set incentive amount provided up front, you were offered an incentive based on the performance of your system that would be greater than the current up-front incentives (assuming the project performed as expected), but that you would not receive the incentive until after the project was installed and operating. Would you prefer that greater performance incentive rather than an up-front dollar-per-watt-installed incentive? Why?

18. Did you include the potential value of renewable energy credits (also called green tags) associated with your SGIP project(s) in your contracts or negotiations with any parties involved?
- 18.1 **[If yes]** Did you keep the RECs or did you sign them over to your developer?
- 18.2 **[If they kept the RECs]** Do you plan to participate in WREGIS (Western Renewable Energy Generation Information System to be launched in June 2007)?

INCENTIVE LEVELS AND EQUIPMENT COSTS

19. In the previous survey, you mentioned that it would likely take **[INSERT ANSWER FROM SURVEY Q15A]** for your system to pay for itself. Do you feel that the current incentive levels adequately cover enough of the equipment costs in order for the pay back period to be reasonable for your company/organization?
20. Do you feel like equipment cost is increasing or decreasing over time?
21. Would a declining incentive amount over the next several years for all the technologies in the program affect your participation in future projects? In what way? (e.g., deciding to not participate; accelerating projects to get a better incentive; increasing the size of the project to maximize the incentive.)

APPLICATION MATERIALS AND OTHER

22. If you reviewed the program application materials, were these materials and instructions clear?
- 22.1 Please explain anything that wasn't clear to you.
- 22.2 Do you have any suggestions for making them better?
23. Have you looked at the Program Handbook?
- 23.1 **[If yes]** Was it helpful?
- 23.2 Please explain anything that wasn't clear to you.
- 23.3 Do you have any suggestions for making it better?
24. Did you experience any delays with the utility interconnection process?
- 24.1 **[If yes]** please describe.
25. **[For all project types EXCEPT PV and wind]** Were you aware that your system might be assessed nonbypassable charges for departing load?

[Nonbypassable charges involve costs that have historically been included in bundled service bills but are now separately listed as line items, and include charges for items such as public purpose programs. A customer's date of departure and the size and type of technology installed determine whether or not the customer will be exempt from nonbypassable charges.]

25.1 **[If yes]** Have you received your first bill?

25.1a **[If yes]** Is it what you expected?

[If no] Please describe the difference.

III. Retention Questions [ask the questions in this section only if the host customer ultimately installed the on-site generator]

Now I would like to discuss the operation of your system.

26. Is the on-site generator system still installed?

26.1 **[If no]** When and why was it removed?

27. Is the system operational?

27.1 **[If no]** When and why did it break?

28. Is the system capable of being operated, but not currently operating?

28.1 **[If no]** Why is it not operating?

29. **[If operating]** Is the system operating at capacity?

29.1 **[If no]** Why not?

30. **[If operating]** Does the system operate reliably?

30.1 **[If no]** Please elaborate.

31. **[If ever operated]** Did the system have any start-up problems?

31.1 **[If yes]** Please explain.

32. Has any part of the system been replaced since initial operation, or has the unit required any repair?

32.1 **[If yes]** Please describe.

32.2 Was the repair or replacement done under warranty?

33. **[If operating]** How long do you expect that you will operate the system?

34. **[If operating]** Does the system require routine maintenance?

34.1 **[If yes]** please describe.

34.2 Do you perform or have someone else perform the maintenance?

[Ask Q35 for PV projects]

35.1 Have you had any inverter problems? **[If yes]** Please explain.

35.2 Have you had any panel or cell problems? **[If yes]** Please explain.

[Ask Q36 for renewable-fueled projects]

- 36.1 Have you any fuel quality problems? **[If yes]** Please explain.
- 36.2 Have you had any engine or turbine problems? **[If yes]** Please explain.
- 37. Do you feel the system was well designed?
 - 37.1 **[If no]** Please explain.
- 38. Do you feel the system as manufactured was basically high quality?
 - 38.1 **[If no]** Please elaborate.
- 39. Do you feel the installation of the system was of high quality?
 - 39.1 **[If no]** Please elaborate.
- 40. Do you feel the system is properly sized for your facility?
 - 40.1 **[If no]** Please explain.

IV. Market Study Questions

Now I would like to focus on your reasons for installing an on-site generation project and the overall market for on-site generation.

- 41. What prompted you to first consider this on-site generation project?
- 42. What were the primary drivers for this project (**refer back to survey answers as needed, but try to capture in their own words**).
 - 42.1. Why did you choose this particular technology?
 - 42.2 Did the specific application in some sense dictate the technology?
How or why?
- 43. Do you think this project has been successful? Cost-effective?
- 44. If so, what made it succeed or be cost-effective? What factors did you have going in your favor on this project? If not, what prevented it from succeeding or being cost-effective?
- 45. Has your experience with this project made you more or less likely to do additional on-site generation projects? Why?
 - 45.1. What would you do differently next time (or if you had the chance to do this project over from the beginning)?
 - 45.2. Would your expectations be different next time? How so?
- 46. What advice would you have for a business like yours that was considering on-site power generation?

[Ask Q47 if respondent has completed or attempted projects at different sites in California.]

47.1 If you have completed or tried to complete more than one project, are there any regional issues that affected these project in different ways? (e.g. air emissions regulations, labor or materials costs, availability of knowledgeable contracting help.)

47.2 How did these regional issues affect the project? [e.g. project costs, timing, etc.]

Closing

Thank you very much for your time today. As the RLW interviewer mentioned when they asked if you would be willing to do this follow up interview, we would like to make a \$100 donation to a charity of your choice as a token of our appreciation for your help with this research. To whom should we make out the check?

Make check to: _____

Address: _____

City/State/Zip: _____

Finally, If I have a clarification question as I'm reviewing my notes, is it alright to call you back or email you?

- Yes
- No

Thanks again, and have a great day.

PG&E SGIP Program M&E

Non-Participant Survey

Survey Guide (04/30/2007)

GATEKEEPER INTRODUCTION

S1. Hello, this is _____ and I'm calling from [*CALL CENTER NAME*], a national survey research center. We are conducting a study sponsored by the California Public Utilities Commission. Have I reached ___[*BUSINESS*]___ at ___[*ADDRESS*]___?

1 YES _____ (*CONTINUE*)

2 NO _____ (*CLARIFY BUSINESS NAME /ADDRESS AND CONTINUE*)

Could I please speak with a person such as the office manager, building manager or chief engineer who would be knowledgeable about your facility's energy requirements?

[If asked about the purpose of the call: We are conducting a survey of California businesses concerning their energy use and familiarity with on-site power generation technologies. We are seeking only the opinions of selected professionals and all individual responses will be kept confidential.]

[IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES' CONTACT INFORMATION – HOWEVER, SEND JENNIFER AN EMAIL WITH THE NAME AND ORGANIZATION OF THE PERSON WHO MAY BE CALLING HER.]

Jennifer Barnes, Senior Regulatory Analyst
Pacific Gas & Electric Company
415-973-2797
j5b2@pge.com

S2. *[IF RESPONDENT STILL REFUSES SURVEY, ASK IF YOU MAY HAVE THE REASON FOR REFUSAL – TO DOCUMENT NON-RESPONSE BIAS]*

RESPONDENT SCREENING

S3. Hello, this is ___[*NAME*]___ calling from _____. We are conducting a study sponsored by the California Public Utilities Commission. Are you knowledgeable about the day-to-day operations and energy requirements for your business facility located at ___[*ADDRESS*]___?

Yes _____ (*CONTINUE*)

No _____ (*ASK FOR APPROPRIATE PERSON AND REPEAT S3*)

S4. Would you be one of the people involved in large energy equipment and energy purchasing decisions?

Yes _____ (*CONTINUE*)

No _____ (*ASK FOR APPROPRIATE PERSON AND BEGIN SCREENING WITH S3*)

FACILITY SCREENING

S5. Our firm is conducting a study to help utility companies and energy service providers develop products and services that better meet your needs. I'd like to ask a few questions about your business. Please answer for the facility located at ___[ADDRESS]___. Does your business own or lease this facility?

- Own 1
- Lease 2
- (TERMINATE)

S6. According to the information I have, your business is primarily involved in _____ [2-Digit IC description]_____ at this location. Is this correct?

- Yes 1 (SKIP TO S7)
- No 2 (PROCEED TO S6.1)

S6.1. How would you describe your business? **(Make sure that they respond for the LOCATION. Wait for respondent to answer. If necessary, prompt with the following list of choices, then select appropriate category. Verify category or read list of choices if necessary.)**

- Agriculture, Forestry, & Fishing 1
- Mining 2
- Construction 3
- Manufacturing – Primary Metals 4
- Manufacturing – Stone/Clay/Glass products..... 5
- Manufacturing – Lumber products..... 6
- Manufacturing – Petroleum Refining..... 7
- Manufacturing – Chemicals or Pharmaceuticals..... 8
- Manufacturing – Paper products 9
- Manufacturing – Food products 10
- Manufacturing – Industrial Machinery 11
- Manufacturing – Electronics 12
- Manufacturing – Transportation Equipment 13
- Manufacturing – Other..... 14
- Transportation or Communications..... 15
- Water or wastewater treatment plant..... 16
- Wholesale Trade/Warehouse 17
- Restaurants, eating and drinking establishments..... 18
- Grocery stores/supermarkets..... 19
- Retail Trade (excludes groceries, eating & drinking establishments)..... 20
- Hospital/nursing home 21
- Hotel/motel..... 22
- Office building (includes banks, doctor’s office, professional services, etc.)..... 23
- Schools, colleges or universities 24
- Other Private Sector Services (non-manufacturing) 25

Public Administration/Government 26
 Other (specify): 27
 (Re-classify into one of the categories above if possible.)

If S6.1 = 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 16, 17, or 26, classify as High Penetration Segment. Otherwise classify as Low Penetration Segment.

S7. Approximately how many full-time employees or full-time equivalent positions are there who work for your company **at this location**?

_____ **Terminate if < 10 for manufacturing (IF Q6.1=4-14) or < 25 for non-manufacturing (If q6.1=1-3,15-27)**

S8. And to confirm, is your electric utility [INSERT SCE, SDG&E, OR PG&E BASED ON ZIP CODE]?

- Yes 1
- No 2

S9. Do you have natural gas service at this address?

- Yes 1
- No 2 **(SKIP NEXT QUESTION)**

S10. Is your natural gas utility [INSERT SCG, SDG&E, OR PG&E BASED ON ZIP CODE]?

- Yes 1
- No 2

If neither S8 nor S10 = “yes,” terminate.

(UNLESS OTHERWISE SPECIFIED RECORD ALL DON’T KNOW’S AS 88 AND REFUSED AS 99)

1. Which of the following has your company installed at this facility? **(READ LIST. RECORD ALL THAT APPLY)**

An on-site power system that is used only during blackouts (emergency, standby, or back up generators) 1

An on-site power system that regularly generates power at your facility (not just during outages or blackouts) 2

Neither of the above 3 **(SKIP TO Q5)**

Don’t Know/Refused 88/99 **(SKIP TO Q5)**

2. Approximately what percentage of your facility’s total electrical load is currently covered by . . .?
(READ EACH ITEM AND RECORD PERCENTAGE)

Percent of Load Covered

[Only ask if Q1 = 1]

a. A standby or backup generator _____ %

[Only ask if Q1 = 2]

b. An on-site power system that regularly generates power at your facility _____ %

[IF Q1 = 1 and 2] Read: For the rest of the questions in this survey, “on-site generation” refers to systems that regularly generate power. Please do not include systems that only provide backup power for outages in your responses.

3. Which of the following on-site generation technologies do you have installed at this facility?
(Read list; record all that apply)

- Reciprocating engine 1
 Fuel? Natural gas or other(specify): _____)
- Microturbine 2
 Fuel? Natural gas or other(specify): _____)
- Turbine..... 3
 Fuel? Natural gas or other(specify): _____)
- Fuel cell..... 4
 Fuel? Natural gas or other(specify): _____)
- Wind turbine 5
- Photovoltaic cells 6
- Other (specify) 7
 Fuel? Natural gas or other(specify): _____)

4. In what year was the on-site generation system at this facility installed? If you have more than one system, please answer for the one most recently installed. _____

5. Before today, had you heard of the California Self-Generation Incentive Program?

- Yes 1
- No..... 2 **(SKIP to Q7)**
- Don’t know/not sure 3 **(SKIP to Q7)**

6. How did you first hear about this program? (**ASK OPEN ENDED; PROMPT WITH LIST IF NECESSARY; RECORD ALL THAT APPLY**)

- Utility representative..... 1
- Regional Energy Office2
- Equipment/system dealer/vendor..... 3
- Other users of onsite generation systems.....4
- Print advertisements..... 5
- Magazine or newspaper article 6
- Radio advertisement.....7
- Other media (e.g., TV, news press releases)..... 8
- Professional publications 9
- Insert or flyer in your electric bill 10
- Government agency (CPUC, CEC, or DOE)... 11
- Internet search/web site..... 12
- E-mail notice or advertisement 13
- Other (specify:_____) 14

6a. What do you recall specifically that was appealing about the program when you first heard about it or thoughts since then? Anything else? (**ASK OPEN ENDED, PROMPT FOR ADDITIONAL REASONS & RECORD UNAIDED RESPONSES PER LIST BELOW; RECORD ALL THAT APPLY**)

- Don't recall specific information – just a general recollection.....1
- Financial incentives available to defray system cost.....2
- Opportunity to become more energy self-reliant.....3
- Opportunity to contribute to environmental protection4
- Opportunity to show alternative energy technology leadership in the community.....5
- Reduce energy costs.....6
- Other #1 (specify:_____)7
- Other #2 (specify:_____)8
- Nothing I heard about or have thought of appealed to me about the program – my focus is on other issues, not generating power.....9

7. Are you aware of any programs in California that provide financial incentives or rebates to businesses for installing on-site power generation systems?

- Yes 1
- No..... 2

8. On a scale of 1 to 10, where 10 means “Very likely to install” and 1 means “Not at all likely to install,” how likely is it that your organization will install [if Q1 = 2, add “additional”] onsite power generation equipment for this facility **in the next five years? Please do not count generation equipment that would be used solely for backup or emergency power.**

Very Likely to Install.....	10 (SKIP TO Q9)
9.....	9 (SKIP TO Q9)
8.....	8 (SKIP TO Q9)
7.....	7
6.....	6
5.....	5
4.....	4
3.....	3
2.....	2
Not At All Likely to Install.....	1

8a. (If Q8 response = 7 or less) What concerns do you have that would prevent you installing on-site generation other than an emergency backup system? **(ASK OPEN ENDED, PROMPT FOR ADDITIONAL REASONS & RECORD UNAIDED RESPONSES PER LIST BELOW; RECORD ALL THAT APPLY)**

Don't have specific concerns – just a general feeling that it's not a good idea for us.....	1
It's the utility industry's job to provide power – it's not our business (if a business)/not my responsibility (if residential or institutional)	2
Our priorities are on our business and doing a good job with that, not running a generating system.....	3
We're interested but don't know anything about the technologies available and/or how they might apply to our situation	4
We don't have time/resources to investigate self-generation	5
We're concerned about having to operate and maintain a self-generation system – no technical ability.....	6
We don't know if a self-generation system would make economic sense (to reduce energy bills).....	7
Other #1 (Specify: _____).....	8
Other #2 (Specify: _____).....	9

8b. What information, resources or other factors would help overcome the concerns you just told me about? **(Revisit each concern stated in Q8a and probe for factors that would help overcome each stated concern. Record all factors stated.)**

- Nothing – it’s not my business/responsibility to be generating power 1
- More information about available technologies – how they work, costs, etc 2
- More information about how on-site generation would make us more energy self-reliant and/or reduce environmental impacts 3
- Technical assistance to identify and design an on-site generation system that works best for us .. 4
- Technical assistance to operate and maintain a system (third party operator/maintenance services)..... 5
- Financial or economic analysis assistance to determine if a system would provide a reasonable return on the investment 6
- Financial incentives to make a system economically viable..... 7
- Other #1 (Specify: _____)..... 8
- Other #2 (Specify: _____)..... 9

9. **If you were** to install additional onsite power generation (other than backup or emergency generation) in the next five years, how influential would each of the following factors be in making that decision? Please rate the influence of each factor on a scale of 1 to 5, with 5 being “very influential,” and 1 being “not influential at all.” **(Record one response for each factor)**

Factor	Rating				
a. Wanted to reduce utility bills	1	2	3	4	5
b. Wanted to reduce our peak demand	1	2	3	4	5
c. Wanted a backup system to improve the overall reliability of our electricity supply	1	2	3	4	5
d. Concern for the environment	1	2	3	4	5
e. Energy supply independence	1	2	3	4	5
f. Improve our business image— green marketing	1	2	3	4	5
g. Provide technical demonstration	1	2	3	4	5
h. Other: _____	1	2	3	4	5

10. **If you were** to install additional onsite power generation (other than backup or emergency generation) in the next five years, what is the longest payback period you would be willing to accept?
(READ LIST – RECORD ONE RESPONSE)

- 6 months or less 1
- 1 year 2
- 2 years 3
- 3 years 4
- 4 years 5
- 5 years 6
- 6 – 10 years 7
- More than 10 years 8

11. How important would the availability of rebates be in deciding whether to install onsite generation in the future? Rating on a scale of 1 to 5 where 5 is very important and 1 is not at all important.

- | | | | | | |
|-------------------|---|---|---|--|------------------|
| <u>Not at all</u> | | | | | <u>Very</u> |
| <u>Important</u> | | | | | <u>Important</u> |
| 1 | 2 | 3 | 4 | | 5 |

11a. How important would it be in deciding whether to install on-site generation to have the system have a basic payback of less than 5 years? Rating on a scale of 1 to 5 where 5 is very important and 1 is not at all important

- | | | | | | |
|-------------------|---|---|---|--|------------------|
| <u>Not at all</u> | | | | | <u>Very</u> |
| <u>Important</u> | | | | | <u>Important</u> |
| 1 | 2 | 3 | 4 | | 5 |

11b. How important would technical assistance to identify and design an on-site generation system be in deciding whether to install on-site generation in the future? Rating on a scale of 1 to 5 where 5 is very important and 1 is not at all important

- | | | | | | |
|-------------------|---|---|---|--|------------------|
| <u>Not at all</u> | | | | | <u>Very</u> |
| <u>Important</u> | | | | | <u>Important</u> |
| 1 | 2 | 3 | 4 | | 5 |

11c. How important would it be in deciding whether to install on-site generation to have a trustworthy provider of operation and maintenance services? Rating on a scale of 1 to 5 where 5 is very important and 1 is not at all important

<u>Not at all</u>					<u>Very</u>
<u>Important</u>					<u>Important</u>
1	2	3	4		5

11d. How important would it be in deciding whether to install on-site generation to have the system's operation not be noticeable to you? Rating on a scale of 1 to 5 where 5 is very important and 1 is not at all important

<u>Not at all</u>					<u>Very</u>
<u>Important</u>					<u>Important</u>
1	2	3	4		5

12. We appreciate your time and cooperation today. Because understanding the role that various factors play in making onsite generation projects successful is so important, we invite you to participate in a more in-depth, follow-up interview to be scheduled in the next few weeks. This interview would last about 20 to 30 minutes. It will be conducted by a senior analyst with Energy Insights, one of the firms participating in this research. It would be structured less like a formal survey and more like a conversation. In recognition of the additional time commitment, we would provide a \$100 donation to the charity of your choice once the interview is complete.

May we schedule you for this follow-on interview?

Yes 1

No.....2

Thank and terminate

Schedule appointment for interview. Verify:

Date and time (PDT)

Phone number to call

Email address (for reminder email the day before the interview)

THANK RESPONDENT FOR THEIR TIME TODAY AND THEIR AGREEMENT TO DO AN IN-DEPTH INTERVIEW

PG&E SGIP Program M&E
Non-Participant Interviews
 Interview Guide (5/16/2007)

Respondent name: _____

Respondent title: _____

Company name: _____

Date and time of interview: _____

Interviewer: _____

Taped? (circle one) **YES** **NO**

Notes to interviewers

This topic guide is designed to help you to complete an approximately 30-minute in-depth interview (IDI). As you know, the qualitative research process is about *discovery*, not coverage. As such, we expect you to cover all areas of investigation, but, if necessary, to focus on those questions that seem most relevant to each respondent or those that develop new and/or useful information. Additionally, you are not required to ask questions in the order they are given herein; based on your experience in qualitative interviewing, allow the flow of the conversation to dictate the order in which you ask them.

Background

Energy Insights is part of the Summit Blue Consulting team that is evaluating the California SGIP. The evaluation is focused on systems installed under the SGIP in the service areas of PG&E, SCE, SCG, and SDG&E. A Working Group (consisting of representatives from the Program Administrators, SDG&E, and the CEC staff associated with the Emerging Renewable Program, and the Energy Division of the CPUC) is charged with the evaluation of the program through their Measurement and Evaluation subcommittee led by Jennifer Barnes of PG&E.

Tape Recording

If you tape-record the interview, you must obtain explicit permission from the respondent.

Confidentiality

If respondents ask, tell them yes, their answers will remain confidential, and we will not reveal identities to anyone outside our research team, including utility company employees

Introduction

[NOTE: DRG will have already qualified the respondent for this IDI prior to this point. Please have those survey responses in front of the interviewer so that we can simply confirm and probe for more detail. Many of these questions are addressed in the survey.]

Hello, my name is _____ and I work for Energy Insights. I am calling on behalf of the California Public Utilities Commission. We are conducting interviews to follow up on some of the

issues raised in the survey on on-site power generation that you recently completed. This interview is for research purposes, and your participation will not result in marketing or sales calls.

NOTE: IF RESPONDENT QUESTIONS THE LEGITIMACY OF THE SURVEY, YOU MAY GIVE THEM JENNIFER BARNES' CONTACT INFORMATION, BUT SEND JENNIFER AN EMAIL TO ALERT HER SHE MAY BE GETTING A CALL:

Jennifer Barnes, Senior Regulatory Analyst
Pacific Gas & Electric Company
415-973-2797
j5b2@pge.com

Taping (optional)

With your permission, I'll record the interview to avoid slowing down our conversation by taking all written notes. I will not use the tapes for anything other than note taking and analysis. (*NOTE TO INTERVIEWER: Taping is optional, but you must obtain consent before doing so.*)

I. Confirm On-Site Generation Status and Awareness of SGIP

Before beginning, make sure you understand whether the respondent has installed on-site generation (other than standby), what technologies they have installed, when they were installed, and whether the respondent was familiar with SGIP before completing the initial survey. Summarize your understanding from their survey responses, and give them a chance to verify, correct, or comment.

II. Reasons for not Applying to SGIP and program features

1. **[Ask Q1 only of those who installed on-site generation (other than standby) since 2000]** Our records indicate that you did not apply for funding through the Self-Generation Incentive Program for the on-site generation system you installed in **[insert year from survey]**. Why not?
Probe for:
 - Unaware of the program at the time
 - Believed our project would not qualify (why not?)
 - Had heard negative things about the program (what? From whom?)
 - Other (specify)?
2. If you were to install additional on-site generation in the future, would you be likely to apply to SGIP? Why or why not?
3. Are there other technologies that you think would make a good fit for the SGIP that are not currently eligible?

PERFORMANCE BASED INCENTIVES/RENEWABLE ENERGY CREDITS

4. The SGIP provides an up-front financial incentive, with the amount based on the size of the system (i.e., \$/watt). Imagine that, instead, you were offered an incentive based on the performance of your system that would be greater than the current up-front incentives (assuming the project performed as expected), but that you would not receive the incentive until after the

project was installed and operating. Would you prefer that greater performance incentive rather than an up-front dollar-per-watt-installed incentive? Why?

INCENTIVE LEVELS AND EQUIPMENT COSTS

5. In the previous survey, you mentioned that if you were to install on-site generation in the future, it would need to pay for itself within _[Insert answer from survey Q10]_____ years.. Do you feel that the current incentive levels adequately cover enough of the equipment costs in order for the pay back period to be reasonable for your company/organization?
6. Do you feel like equipment cost is increasing or decreasing over time?
7. Would a declining incentive amount over the next several years for all the technologies in the program affect your participation in future projects? In what way? (e.g., deciding to not participate; accelerating projects to get a better incentive; increasing the size of the project to maximize the incentive.)

III. Increasing Awareness and Education (SGIP and on-site generation)

8. If the CPUC wants to increase awareness and knowledge of the SGIP among businesses such as yours, how would you suggest they go about doing that? What would be the most effective ways to reach businesses such as yours? **Probe for:**
 - Utilities as channels, versus equipment suppliers/project developers
 - Utility bill inserts versus direct mail
 - Specific professional publications or professional associations
 - Mass media campaigns (print versus radio versus television)
 - Other (specify)
9. On a scale from 1 to 5, where 5 means “very interested” and 1 means “not at all interested,” how interested are you in learning more about on-site generation and the financial incentives available to support such projects?

Not at all interested

Very interested

1 2 3 4 5

10. Information about on-site generation technologies, available incentives, and overall project economics could come from a variety of sources such as equipment manufacturers, project developers, electric or gas utilities, or state agencies such as the CPUC or CEC. What sources would you find most (or least) credible for information on:
 - 10.1 On-site generation technologies
 - 10.2 Available incentives
 - 10.3 Overall project economics

IV. Retention Questions [ask the questions in this section only if the respondent has an on-site generator – other than standby -- installed]

Now I would like to discuss the operation of your current on-site generator system.

11. Is the on-site generator system still installed?
 - 11.1 [If no] When and why was it removed?
12. Is the system operational?
 - 12.1 [If no] When and why did it break?
13. Is the system capable of being operated, but not currently operating?
 - 13.1 [If no] Why is it not operating?
14. [If operating] Is the system operating at capacity?
 - 14.1 [If no] Why not?
15. [If operating] Does the system operate reliably?
 - 15.1 [If no] Please elaborate.
16. [If ever operated] Did the system have any start-up problems?
 - 16.1 [If yes] Please explain.
17. Has any part of the system been replaced since initial operation, or has the unit required any repair?
 - 17.1 [If yes] Please describe.
 - 17.2 Was the repair or replacement done under warranty?
18. [If operating] How long do you expect that you will operate the system?
19. [If operating] Does the system require routine maintenance?
 - 19.1 [If yes] please describe.
 - 19.2 Do you perform or have someone else perform the maintenance?

[Ask Q20 for PV projects]

- 20.1 Have you had any inverter problems? [If yes] Please explain.
- 20.2 Have you had any panel or cell problems? [If yes] Please explain.

[Ask Q21 for renewable-fueled projects]

- 21.1 Have you any fuel quality problems? [If yes] Please explain.
- 21.2 Have you had any engine or turbine problems? [If yes] Please explain.

22. Do you feel the system was well designed?
22.1 [If no] Please explain.
23. Do you feel the system as manufactured was basically high quality?
23.1 [If no] Please elaborate.
24. Do you feel the installation of the system was of high quality?
24.1 [If no] Please elaborate.
25. Do you feel the system is properly sized for your facility?
25.1 [If no] Please explain.

[Ask Q26 to Q28 for non-renewable-fueled cogeneration projects]

26. Did natural gas prices affect your decision to apply to the program?
27. Do natural gas prices today affect the operating hours of your system?
27.1 Do you currently have any (or have you previously had any) problems with waste heat utilization after the system became operational?
27.1a [If yes] Please elaborate.
28. Have you had any heat exchanger failures?

V. Market Study Questions

Now I would like to focus on your reasons for installing an on-site generation project and the overall market for on-site generation.

29. What prompted you to first consider this on-site generation project?
30. What were the primary drivers for this project (refer back to survey answers as needed, but try to capture in their own words).
30.1. Why did you choose this particular technology?
30.2 Did the specific application in some sense dictate the technology?
How or why?
31. Do you think this project has been successful? Cost-effective?
32. If so, what made it succeed or be cost-effective? What factors did you have going in your favor on this project? If not, what prevented it from succeeding or being cost-effective?
33. Has your experience with this project made you more or less likely to do additional on-site generation projects? Why?
33.1. What would you do differently next time (or if you had the chance to do this project over from the beginning)?
33.2. Would your expectations be different next time? How so?

34. What advice would you have for a business like yours that was considering on-site power generation?

[Ask Q35 if respondent has completed or attempted projects at different sites in California.]

35.1 If you have completed or tried to complete more than one project, are there any regional issues that affected these project in different ways? (e.g. air emissions regulations, labor or materials costs, availability of knowledgeable contracting help.)

35.2 How did these regional issues affect the project? [e.g. project costs, timing, etc.]

Closing

Thank you very much for your time today. As the RLW interviewer mentioned when they asked if you would be willing to do this follow up interview, we would like to make a \$100 donation to a charity of your choice as a token of our appreciation for your help with this research. To whom should we make out the check?

Make check to: _____

Address: _____

City/State/Zip: _____

Finally, if I have a clarification question as I'm reviewing my notes, is it alright to call you back or email you?

- Yes
- No

Thanks again, and have a great day.

APPENDIX B:
MISCELLANEOUS SUPPORTING INFORMATION

This appendix contains supporting information for the Market Focused Process Report.

To complete the Market Focused Process Report, the Summit Blue team used SIC codes to better understand the market players in the SGIP. The Program Data from the PAs provided SIC or NAICS codes for most projects (about 23% of projects did not have a code in the SIC code field). For those projects with no code and those projects whose code did not match the business type, the Summit Blue team looked up SIC codes for each project and the corresponding NAICS code. The Summit Blue team used the SIC codes and the following business types to categorize the market segments involved with the SGIP (Table B- 1).

Table B- 1. SIC Codes and Market Segments

SIC Code	Market Segment	SIC Code	Market Segment	SIC Code	Market Segment
1	Agriculture	38	Manufacturing	72	Office
2	Agriculture	39	Manufacturing	73	Office
7	Agriculture	40	Transportation	75	Misc. Commercial
8	Agriculture	41	Transportation	76	Misc. Commercial
9	Agriculture	42	Transportation	78	Misc. Commercial
10	Mining/Extraction	43	U.S. Postal Service	79	Misc. Commercial
12	Mining/Extraction	44	Transportation	80	Health Services
13	Mining/Extraction	45	Transportation	81	Office
14	Mining/Extraction	46	Transportation	82	Other Educational Services
15	Construction	47	Transportation	83	Office
16	Construction	48	Communication	84	Misc. Commercial
17	Construction	49	Utilities	86	Office
20	Manufacturing	50	Wholesale Trade	87	Office
21	Manufacturing	51	Wholesale Trade	88	Private households
22	Manufacturing	52	Retail Stores	89	Misc. Commercial
23	Manufacturing	53	Retail Stores	91	Public Administration
24	Manufacturing	54	Grocery	92	Public Administration
25	Manufacturing	55	Retail Stores	93	Public Administration
26	Manufacturing	56	Retail Stores	94	Public Administration
27	Manufacturing	57	Retail Stores	95	Public Administration

SIC Code	Market Segment	SIC Code	Market Segment	SIC Code	Market Segment
28	Manufacturing	58	Restaurant	96	Public Administration
29	Manufacturing	59	Retail Stores	97	National Security
30	Manufacturing	60	Misc. Commercial	99	Unclassified
31	Manufacturing	61	Misc. Commercial	4221	Non-Refr Warehouse
32	Manufacturing	62	Office	4222	Refr Warehouse
33	Manufacturing	63	Office	4225	Non-Refr Warehouse
34	Manufacturing	64	Office	4226	Non-Refr Warehouse
35	Manufacturing	65	Real Estate	8211	Elementary/Secondary Schools
36	Manufacturing	67	Office	8221	College
37	Manufacturing	70	Lodging	8222	College

The terms “active,” “completed,” and “inactive” are used in the report. Table B- 2 matches the project status with the “active,” “completed,” and “inactive” labels.

Table B- 2. Project Status Definitions

Status	Active/Completed/Inactive
Advancement	Active
Approved	Active
Completed	Completed
Pending Payment	Active
Rejected	Inactive
Reserved	Active
Suspended	Active
Under Review	Active
Withdrawn	Inactive

The following three tables (Table B- 3, Table B- 4, and Table B- 5) contain the supporting material to Figure 3-10 in Section 3.4.2.-Time to Process Applications of the Market Focused Process Report. These tables include the number of completed projects by year and system type in the SGIP. They show the mean, minimum, median and maximum days to complete project milestones by system type and project year.

Table B- 3 Elapsed Days from Application Date to Conditional Reservation for Completed Projects

Year Received	System	n	Mean	Min	Median	Max
2001	PV	21	44	6	47	91
	Non Ren ICE	27	64	1	44	313
	Non Ren MT	21	55	10	45	154
	Non Ren Fuel Cell	1	77	77	77	77
2002	PV	117	37	0	27	212
	Ren MT	2	36	33	36	38
	Non Ren ICE	51	56	2	49	183
	Non Ren MT	15	54	0	56	140
	Non Ren Gas Turbine	1	6	6	6	6
	Non Ren Fuel Cell	1	9	9	9	9
2003	PV	161	30	0	16	256
	Ren ICE	2	46	39	46	53
	Ren MT	5	25	18	24	37
	Ren Fuel Cell	2	25	8	25	41
	Wind Turbine	1	7	7	7	7
	Non Ren ICE	50	69	2	51	235
	Non Ren MT	33	71	7	77	220
	Non Ren Gas Turbine	1	34	34	34	34
2004	PV	291	68	0	27	316
	Ren ICE	1	56	56	56	56
	Ren MT	5	59	11	44	134
	Non Ren ICE	39	52	3	44	145
	Non Ren MT	23	50	3	34	236
	Non Ren Fuel Cell	3	24	8	23	42
2005	PV	43	235	7	240	419
	Ren ICE	3	117	55	81	216
	Ren MT	1	84	84	84	84
	Non Ren MT	5	72	12	57	133
	Non Ren Gas Turbine	2	93	80	93	105
	Non Ren Fuel Cell	5	84	27	72	167
2006	PV	5	79	31	68	123
	Ren ICE	1	48	48	48	48

Table B- 4. Elapsed Days from Conditional Reservation to Confirmed Reservation for Completed Projects

Year Received	System	n	Mean	Min	Median	Max
2001	PV	21	153	93	143	249
	Non Ren ICE	27	176	0	174	495
	Non Ren MT	21	197	63	187	546
	Non Ren Fuel Cell	1	154	154	154	154
2002	PV	117	149	0	128	433
	Ren MT	2	65	59	65	70
	Non Ren ICE	51	154	0	133	390
	Non Ren MT	15	126	60	128	197
	Non Ren Gas Turbine	1	161	161	161	161
	Non Ren Fuel Cell	1	41	41	41	41
2003	PV	161	139	19	131	392
	Ren ICE	2	126	47	126	204
	Ren MT	5	145	55	102	365
	Ren Fuel Cell	2	119	114	119	124
	Wind Turbine	1	117	117	117	117
	Non Ren ICE	50	162	83	130	535
	Non Ren MT	33	242	91	158	441
	Non Ren Gas Turbine	1	197	197	197	197
2004	PV	291	131	6	124	340
	Ren ICE	1	415	415	415	415
	Ren MT	5	131	42	131	220
	Non Ren ICE	39	188	0	175	541
	Non Ren MT	23	157	39	135	354
	Non Ren Fuel Cell	3	145	139	140	156
2005	PV	43	95	43	83	259
	Ren ICE	3	78	68	74	92
	Ren MT	1	88	88	88	88
	Non Ren ICE	9	75	56	69	127
	Non Ren MT	5	66	48	62	94
	Non Ren Gas Turbine	2	56	45	56	66
	Non Ren Fuel Cell	5	84	57	78	124
2006	PV	5	81	43	77	126
	Ren ICE	1	73	73	73	73

Table B-5. Elapsed Days from Confirmed Reservation to Incentive Paid for Completed Projects

Year Received	System	n	Mean	Min	Median	Max
2001	PV	21	298	67	306	684
	Non Ren ICE	27	313	51	276	703
	Non Ren MT	21	418	194	340	766
	Non Ren Fuel Cell	1	251	251	251	251
2002	PV	117	246	21	204	968
	Ren MT	2	230	131	230	328
	Non Ren ICE	51	428	78	459	998
	Non Ren MT	15	346	76	309	968
	Non Ren Gas Turbine	1	372	372	372	372
	Non Ren Fuel Cell	1	652	652	652	652
2003	PV	161	250	7	216	875
	Ren ICE	2	600	542	600	658
	Ren MT	5	502	77	552	755
	Ren Fuel Cell	2	389	310	389	468
	Wind Turbine	1	429	429	429	429
	Non Ren ICE	50	430	160	387	896
	Non Ren MT	33	442	171	429	792
	Non Ren Gas Turbine	1	469	469	469	469
2004	PV	291	323	27	323	774
	Ren ICE	1	325	325	325	325
	Ren MT	5	197	121	186	262
	Non Ren ICE	39	368	71	331	816
	Non Ren MT	23	304	57	306	533
	Non Ren Fuel Cell	3	373	334	371	414
2005	PV	43	236	25	246	414
	Ren ICE	3	285	242	244	369
	Ren MT	1	213	213	213	213
	Non Ren ICE	9	248	104	234	361
	Non Ren MT	5	334	268	349	375
	Non Ren Gas Turbine	2	422	322	422	521
	Non Ren Fuel Cell	5	323	211	336	386
2006	PV	5	89	13	93	135
	Ren ICE	1	127	127	127	127

Table B- 5 shows the completed surveys by number of host customers. Because some host customers responded to more than one survey, host customers may be represented more than once in this table. For that reason, the total number of host customers shown in the table is 311 host customers, compared to the 289 unique host customers that responded to the survey.

Table B- 5. Completed Surveys for Host Customers, by Number of Host Customers

	PG&E		SCE		SCG		SDREO		Total
	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	
Solar Photovoltaics	81	20	14	29	8	14	9	11	186
Reciprocating engines/turbines	24	15	2	2	18	3	2	3	69
Microturbines	9	2	5	3	11	3	3	0	36
Fuel Cells	6	0	1	1	3	5	0	0	16
Wind Turbines	0	1	0	2	1	0	0	0	4
Total	120	38	22	37	41	25	14	14	311
by PA	158		59		66		28		

The number of projects that are represented by respondents to the host customer survey is shown in

Table B- 6. Because of name changes and other changes to the SGIP accounts during the surveys, some boxes on this table, which is in the same format as the table showing completed surveys, show a lower number of projects represented than surveys completed. In total, the host customers that responded to the survey were involved with about 600 projects in the SGIP, representing 17% of the total application to the SGIP from its inception to December 2006.

Table B- 6. Completed Surveys for Host Customers, by Number of Projects Represented (* means that the number is less than the number of surveys because the respondent was different than listed in the total project database or for some other data change)

	PG&E		SCE		SCG		SDREO		Total
	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	Active/ Complete	Withdrawn/ Suspended/ Rejected	
Solar Photovoltaics	143	61	33	38	15	60	94	15	459
Reciprocating engines/turbines	23*	14*	7	1*	18	6	7	3	79
Microturbines	9	1*	9	3	11	4	2*	1	40
Fuel Cells	5*	0	2	1	2*	5*	0	0	15*
Wind Turbines	0	1	0	2	1	0	0	0	4
Total	180	77	51	45	47	75	103	19	597
by PA	257		96		122		122		

Table B- 7 shows the installed capacity, in MW, that the surveys represent. Overall, the surveys account for about 118 MW, comprising about 12% of the total MW that applied to the SGIP from its inception to December 2006.

Table B- 7. Completed Surveys for Host Customers, by MW

	PG&E		SCE		SCG		SDREO		Total
	Active/ Complete	Withdrawn / Suspended/ Rejected	Active/ Complete	Withdrawn / Suspended/ Rejected	Active/ Complete	Withdrawn / Suspended/ Rejected	Active/ Complete	Withdrawn / Suspended/ Rejected	
Solar Photovoltaics	17.3	5.7	4.5	9.8	2.3	1.6	0.9	3.0	45.1
Reciprocating engines/turbines	12.4	7.6	1.4	1.8	20.6	1.8	1.1	2.0	48.7
Microturbines	2.1	0.3	2.4	1.4	2.5	0.4	0.2	0.0	9.3
Fuel Cells	4.8	0.0	0.5	1.0	2.5	1.9	0.0	0.0	10.7
Wind Turbines	0.0	1.0	0.0	2.0	1.0	0.0	0.0	0.0	4.0
Total	36.6	14.6	8.8	16.0	28.9	5.7	2.2	5.0	117.8
by PA	51.2		24.8		34.6		7.2		