

Memorandum**Date:** November 2, 2009**Telephone:** (916) 651-0966

To: Karen Douglas, Chairman and Presiding Member
 Jeffrey D. Byron, Commissioner and Associate Member, and
 Docket number 08-AFC-2 Proof of Service List

From: **California Energy Commission** – Eric K. Solorio, *Project Manager*
 1516 Ninth Street
 Sacramento, CA 95814-5512

DOCKET	
08-AFC-2	

DATE	<u>11/02/09</u>
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RECD.	<u>11/03/09</u>
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Subject: **Final Staff Assessment (FSA) for Beacon Solar Energy Project (08-AFC-2)**

On October 22, 2009, staff served the parties with a copy of the Final Staff Assessment (FSA) for the Beacon Solar Energy Project (BSEP) Application for Certification (08-AFC-2). Staff inadvertently omitted two sets of figures that should accompany the FSA. The figures titled "Cultural Resource, Figure 1 and Figure 2" should be inserted at the end of the Cultural Resources section of the FSA following page 4.3-2. The second set (7 pages) of figures, titled "Appendix B Figure(s) 1-13" should be inserted at the end of the Alternatives, Appendix B section of the FSA, directly behind "Alternatives Figure 4". Staff appreciates your assistance with inserting these two sets of figures that were inadvertently omitted from the FSA and staff apologizes for any inconvenience this may cause.

If you have any questions about this letter please contact Eric Solorio, Siting Project Manager, at the address on this letterhead or by email to esolorio@energy.state.ca.us.

Attachments: Cultural Resources Figure 1 and Figure 2
 Alternatives, Appendix B, Figures 1-13



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

APPLICATION FOR CERTIFICATION
For the *BEACON SOLAR ENERGY*
PROJECT

Docket No. 08-AFC-2

PROOF OF SERVICE

(Revised 4/28/09)

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DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on November 3, 2009, I served and filed copies of the attached Beacon Solar Energy Project (08-AFC-2) Letter regarding the Final Staff Assessment. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/beacon]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

 x sent electronically to all email addresses on the Proof of Service list;

 x by personal delivery or by depositing in the United States mail at Sacramento with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

 x sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

 depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. _____

1516 Ninth Street, MS-4

Sacramento, CA 95814-5512

docket@energy.state.ca.us

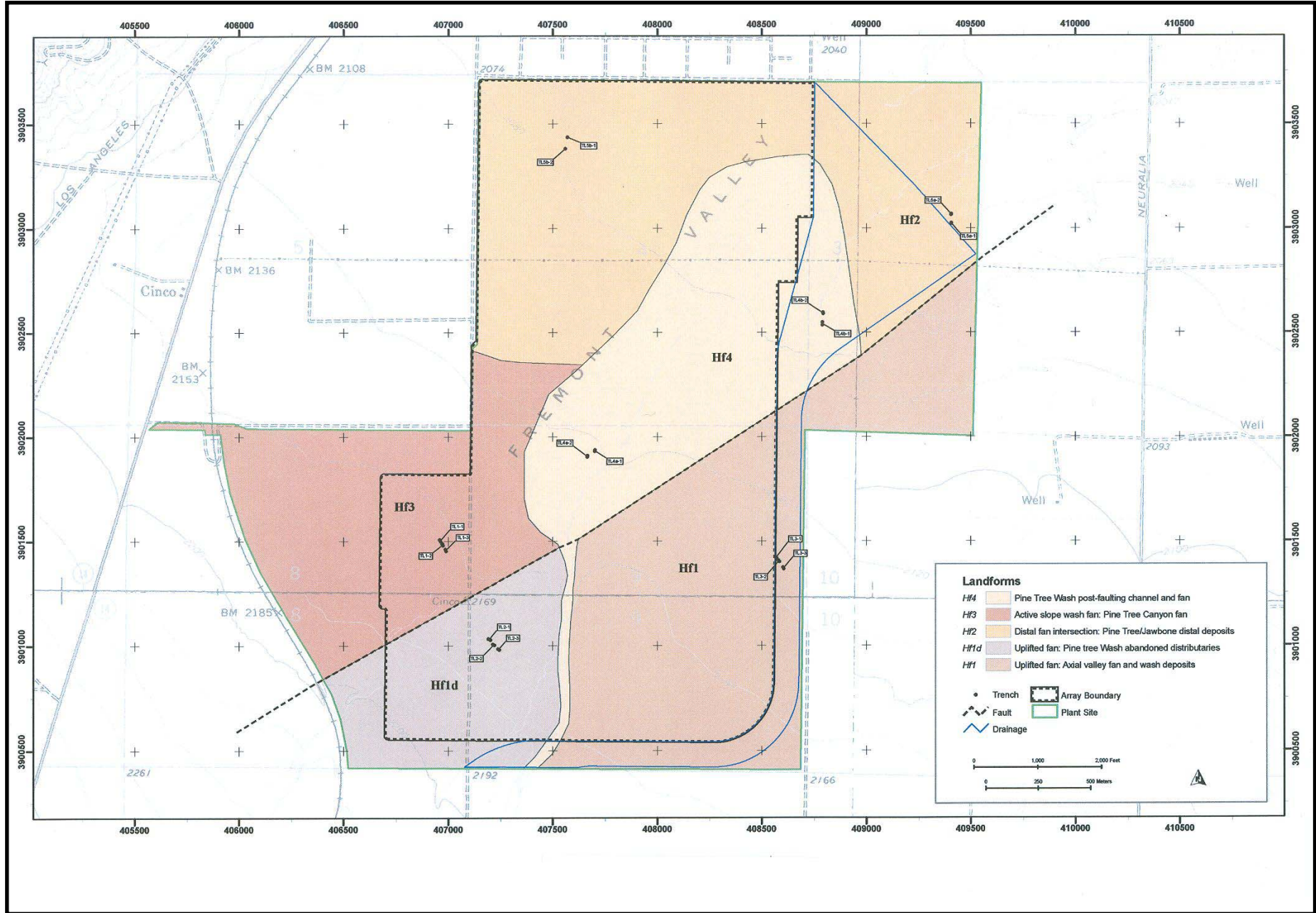
I declare under penalty of perjury that the foregoing is true and correct.

Maria Santourdjian

CULTURAL RESOURCES - FIGURE 1
 Beacon Solar Energy Project - Project Site Landforms

SEPTEMBER 2009

CULTURAL RESOURCES

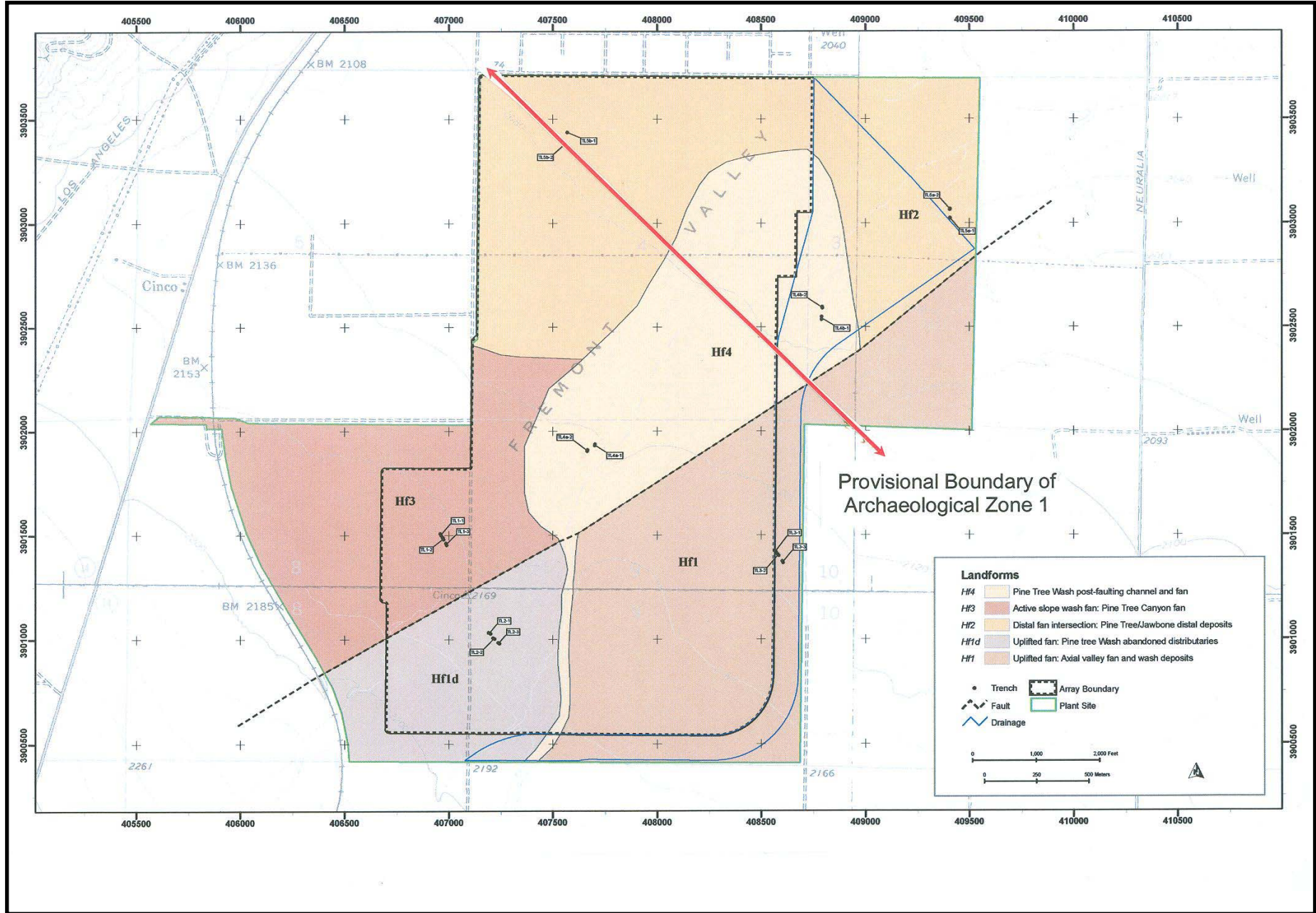


CULTURAL RESOURCES - FIGURE 2

Beacon Solar Energy Project - Provisional Boundary of Archaeological Zone 1

SEPTEMBER 2009

CULTURAL RESOURCES

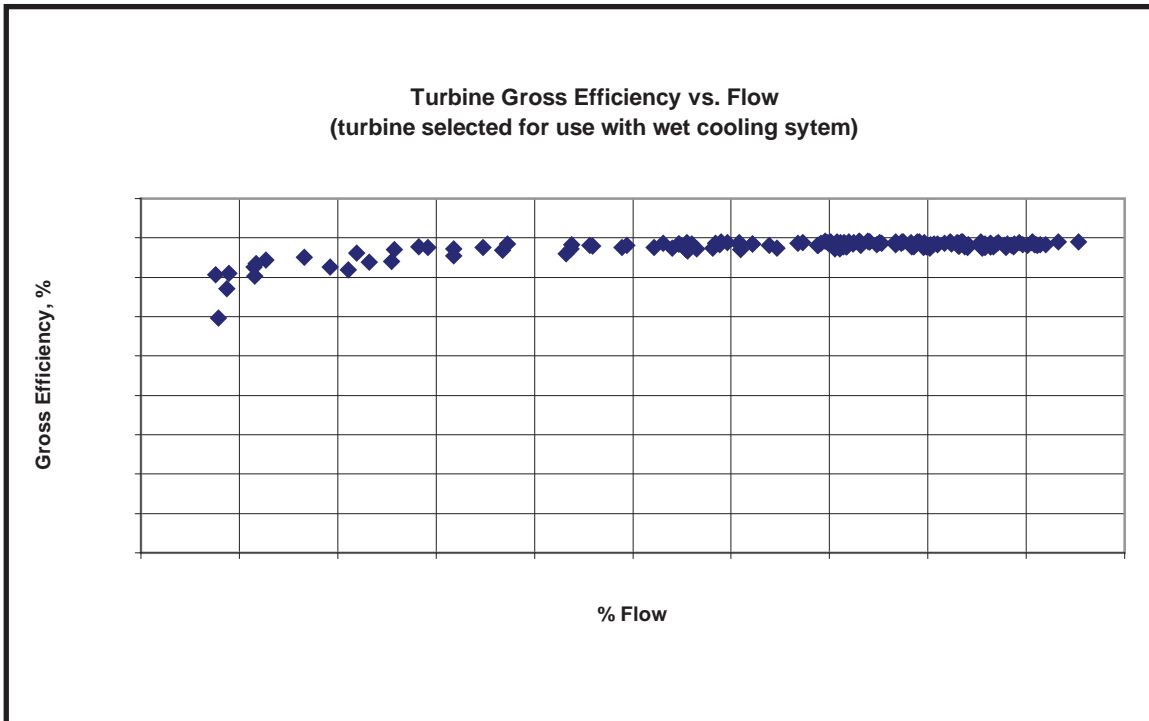


CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, SEPTEMBER 2009

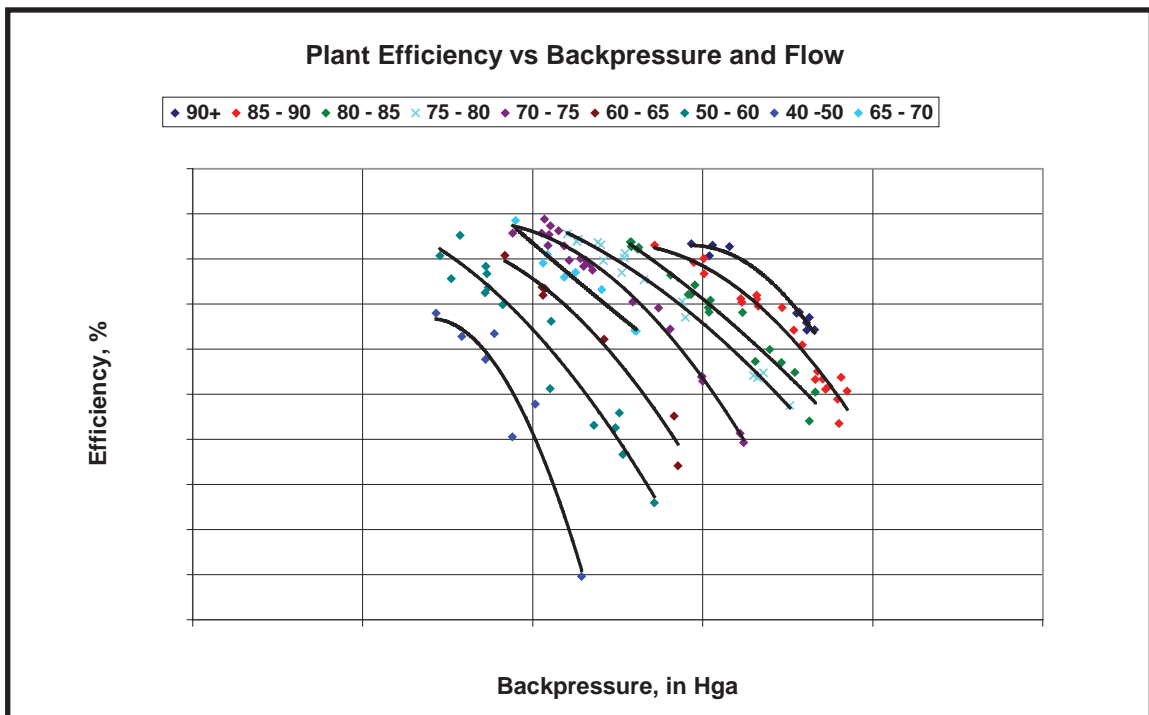
SOURCE: Preliminary Results Beacon Solar Energy Project Geoarchaeology, Feb 5, 2009 - D.Craig Young, Far Western Anthropological Research Group, Davis, CA. - Modified by CEC Staff

APPENDIX B - FIGURE 1 & 2
Beacon Solar Energy Project

Variations in Gross Cycle Efficiency vs. Steam Flow (wet cooled turbine)

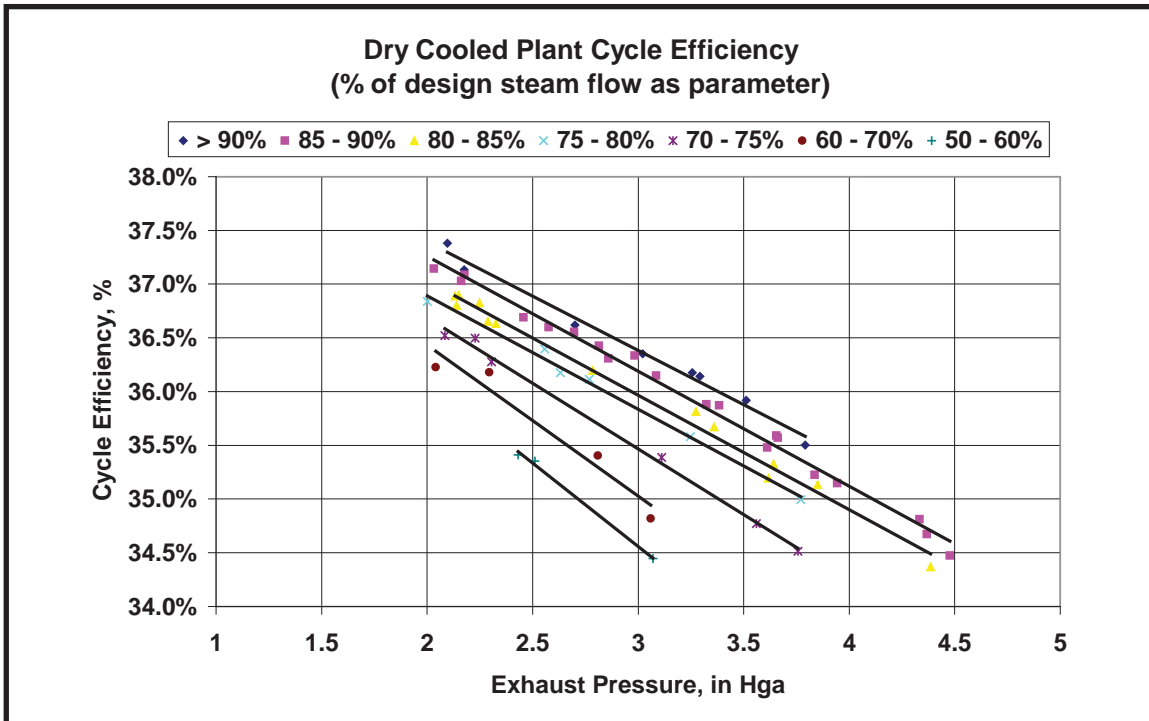


Variations in Gross Cycle Efficiency vs. Turbine Exhaust Pressure
(for different steam flow rates)

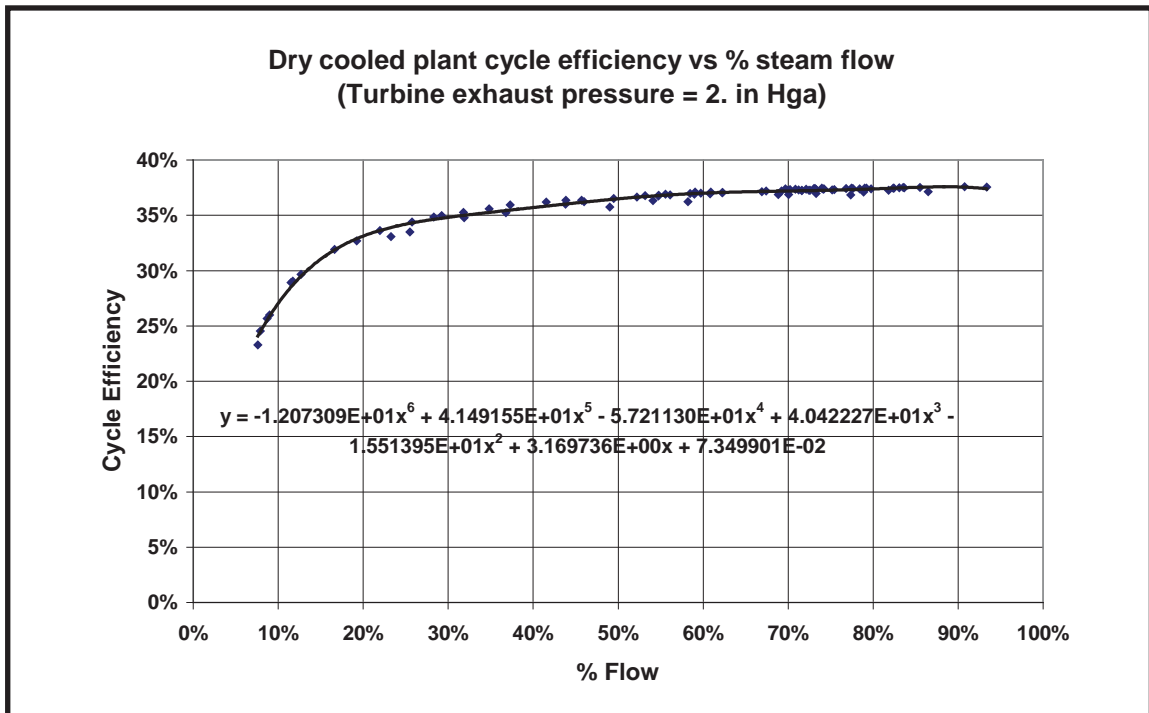


APPENDIX B - FIGURE 3 & 4
Beacon Solar Energy Project

Dry Cooling Turbine Efficiency vs. Backpressure (flow as parameter)

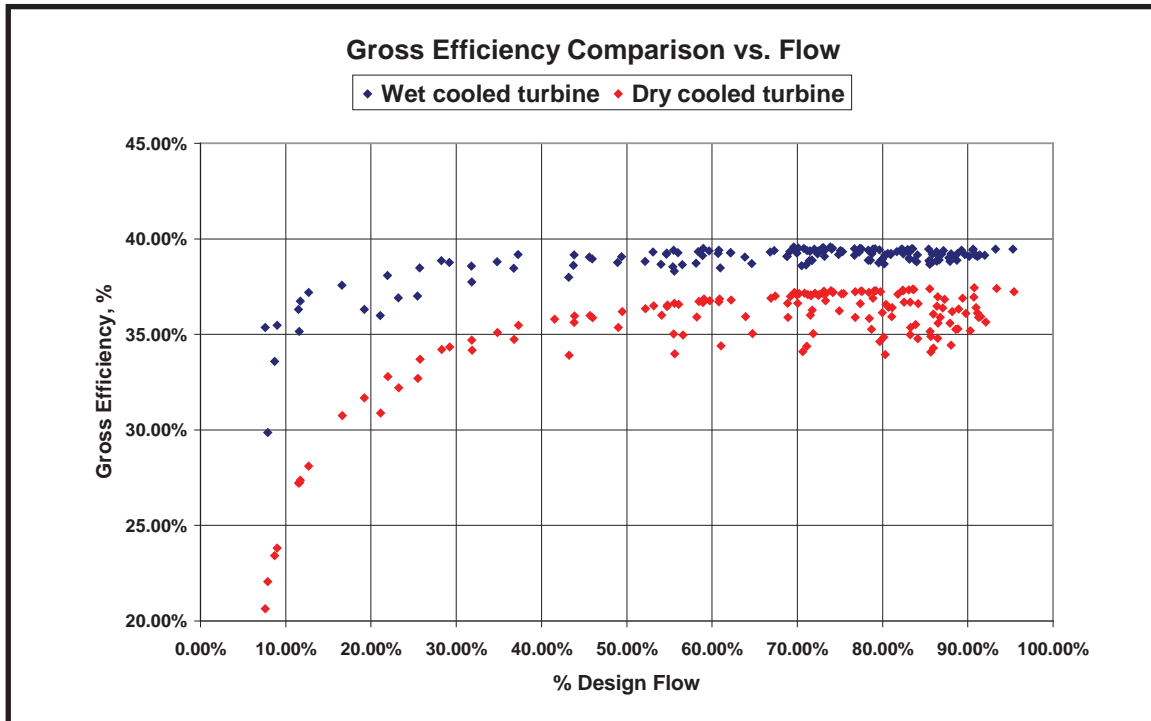


Dry Cooling Turbine Efficiency vs. Steam Flow (Backpressure of 2. in Hga)

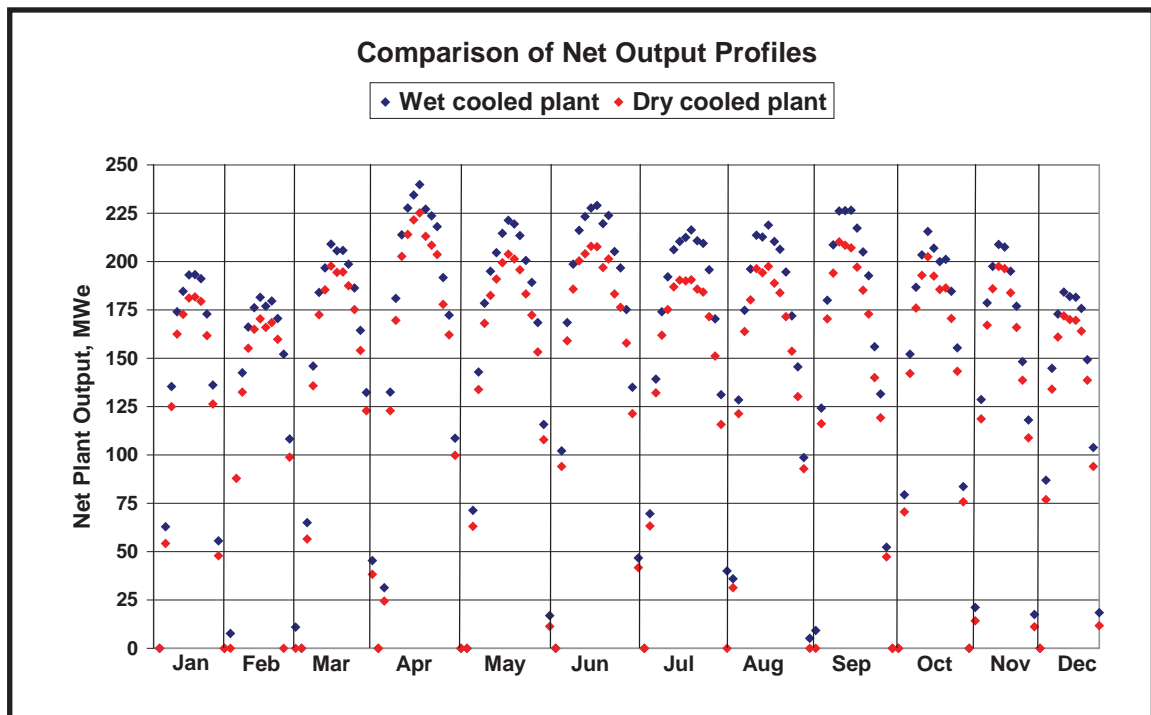


APPENDIX B - FIGURE 5 & 6
Beacon Solar Energy Project

Cycle Efficiency Comparison of Wet and Dry Cooled Plants

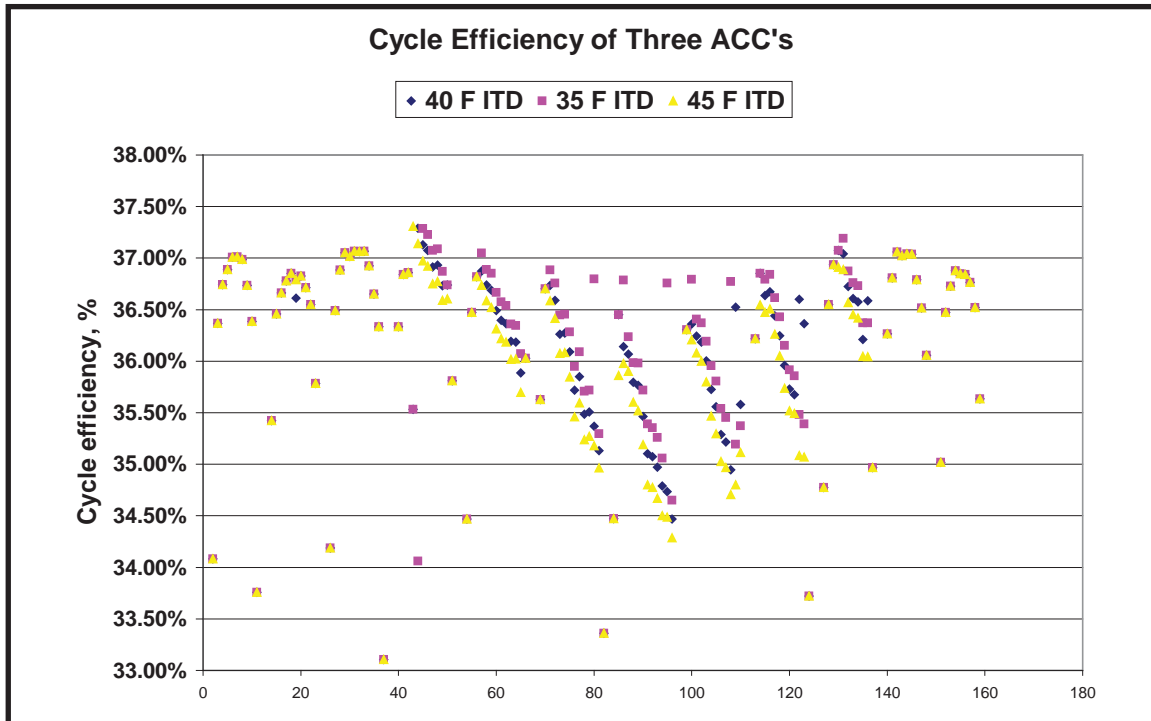


Net Output Comparison of Wet and Dry Cooled Plants

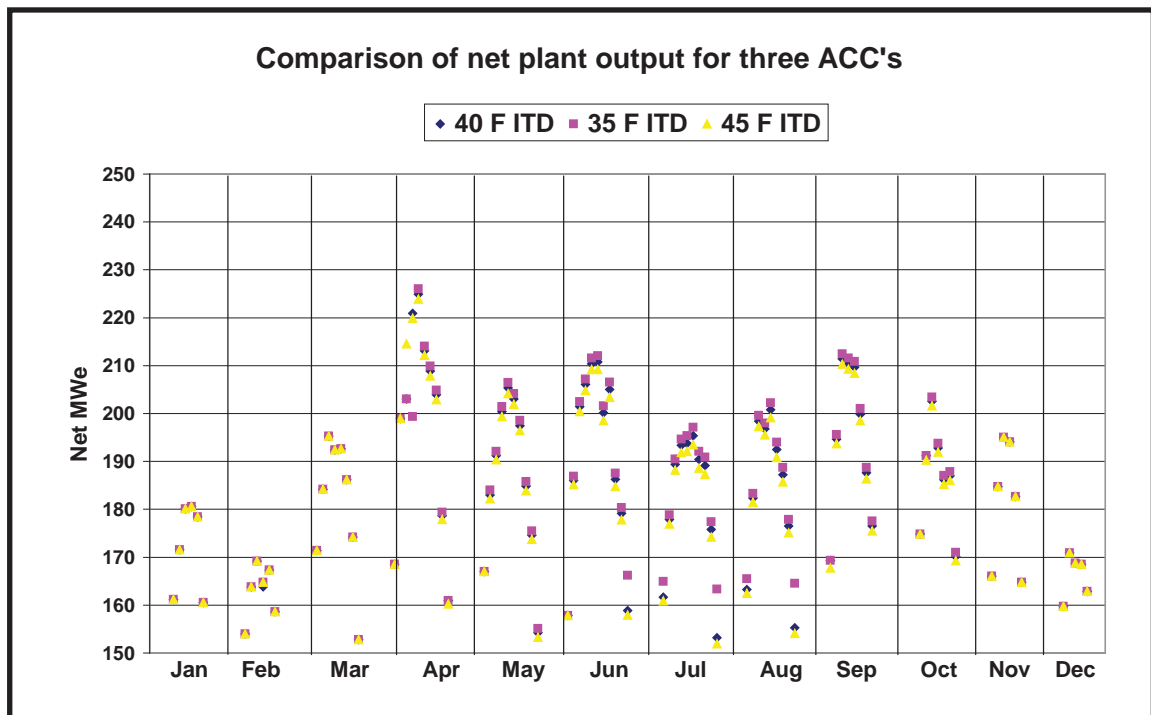


APPENDIX B - FIGURE 7 & 8
Beacon Solar Energy Project

Comparison of Cycle Efficiencies for Three ACC's

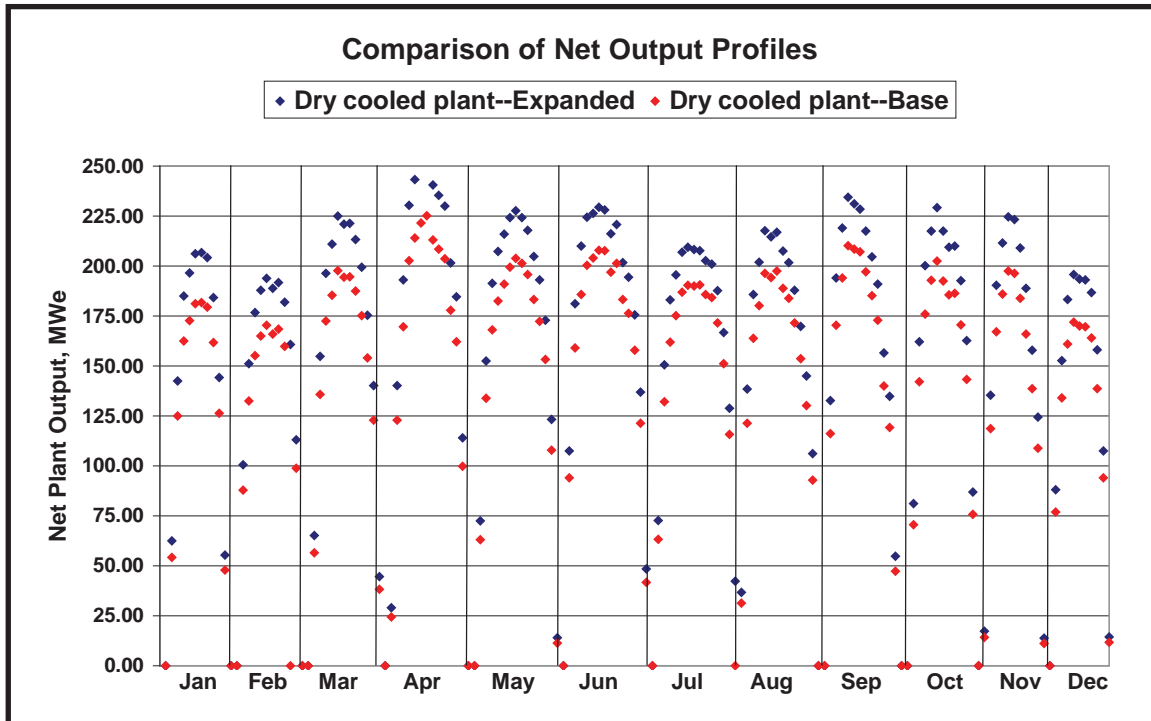


Comparison of Plant Net Output Profiles for Three ACC's

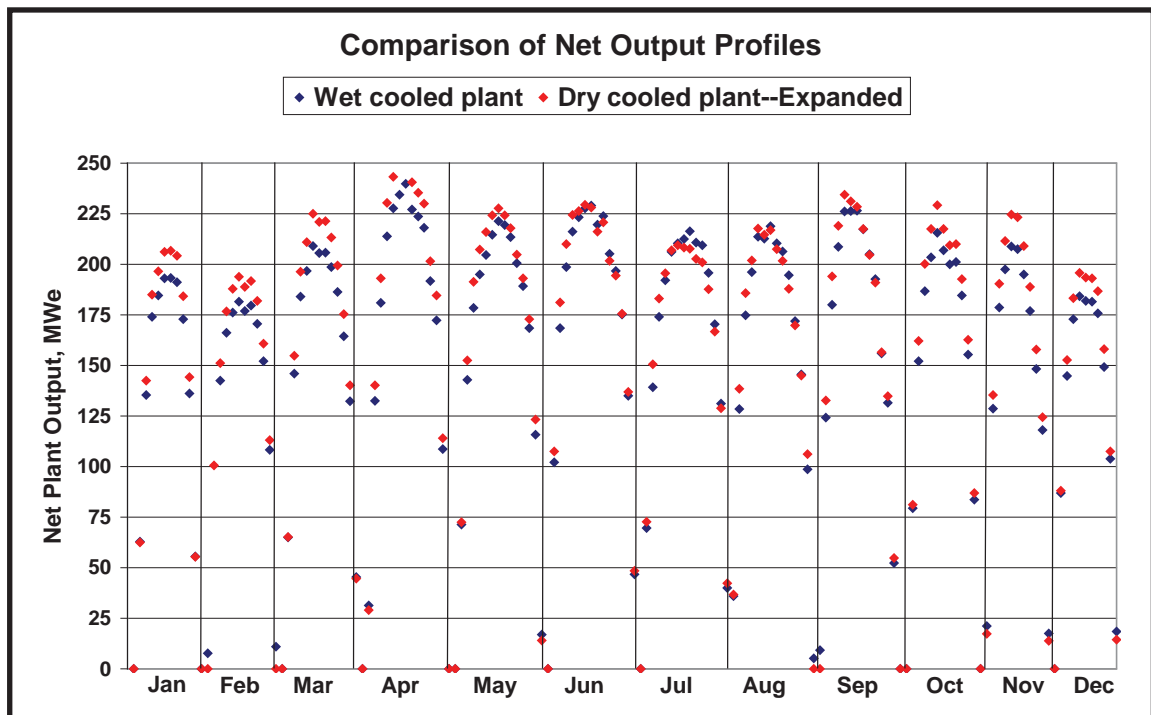


APPENDIX B - FIGURE 9 & 10
Beacon Solar Energy Project

Expanded Field Performance

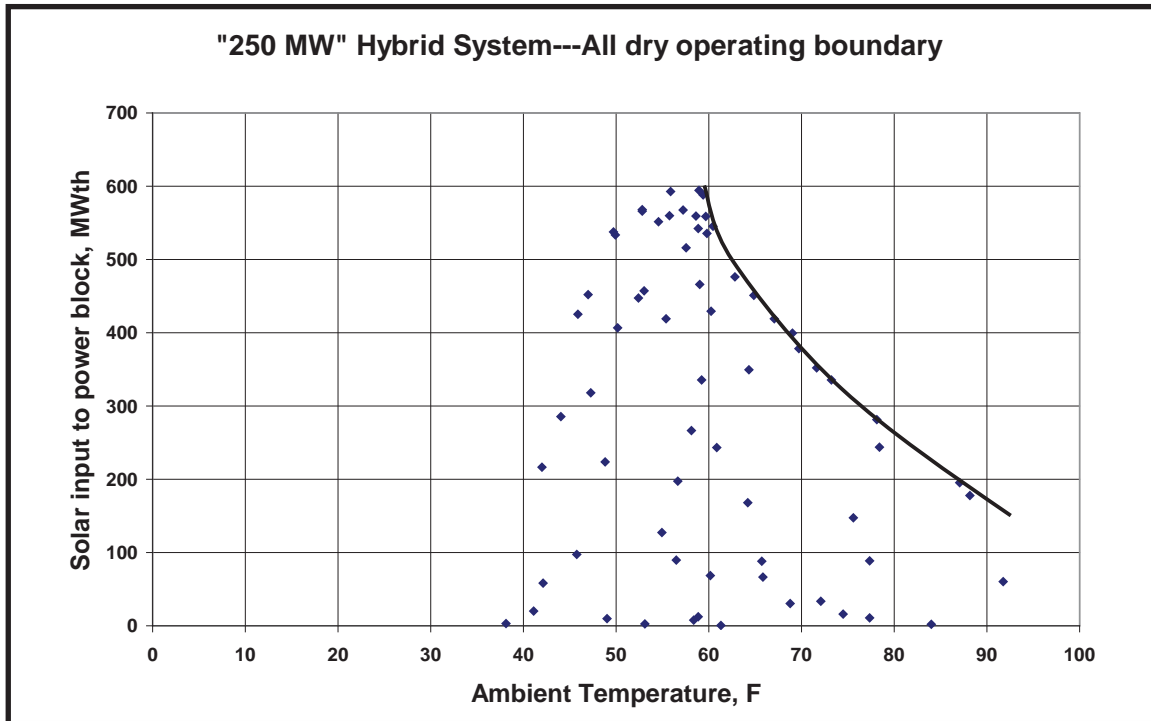


Expanded Field Performance (12% Expansion)

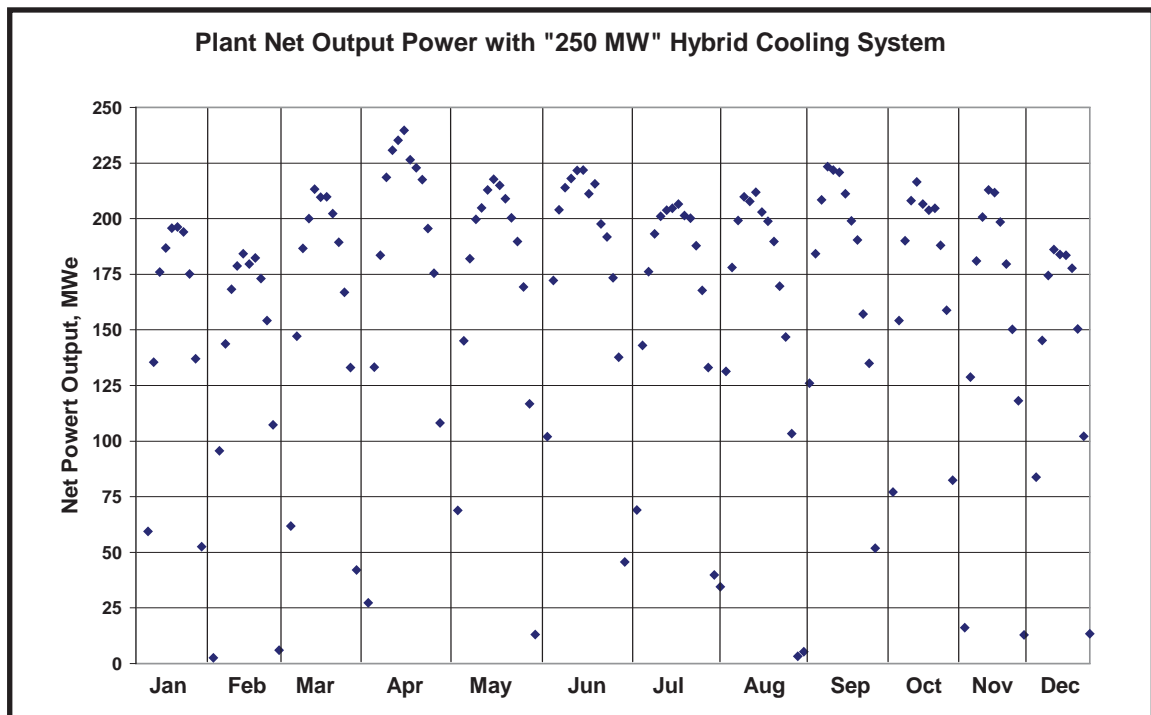


APPENDIX B - FIGURE 11 & 12
Beacon Solar Energy Project

"All Dry" Operation Conditions With Boundary



Annual Operating Profile for Plant with "250 MW" Hybrid System



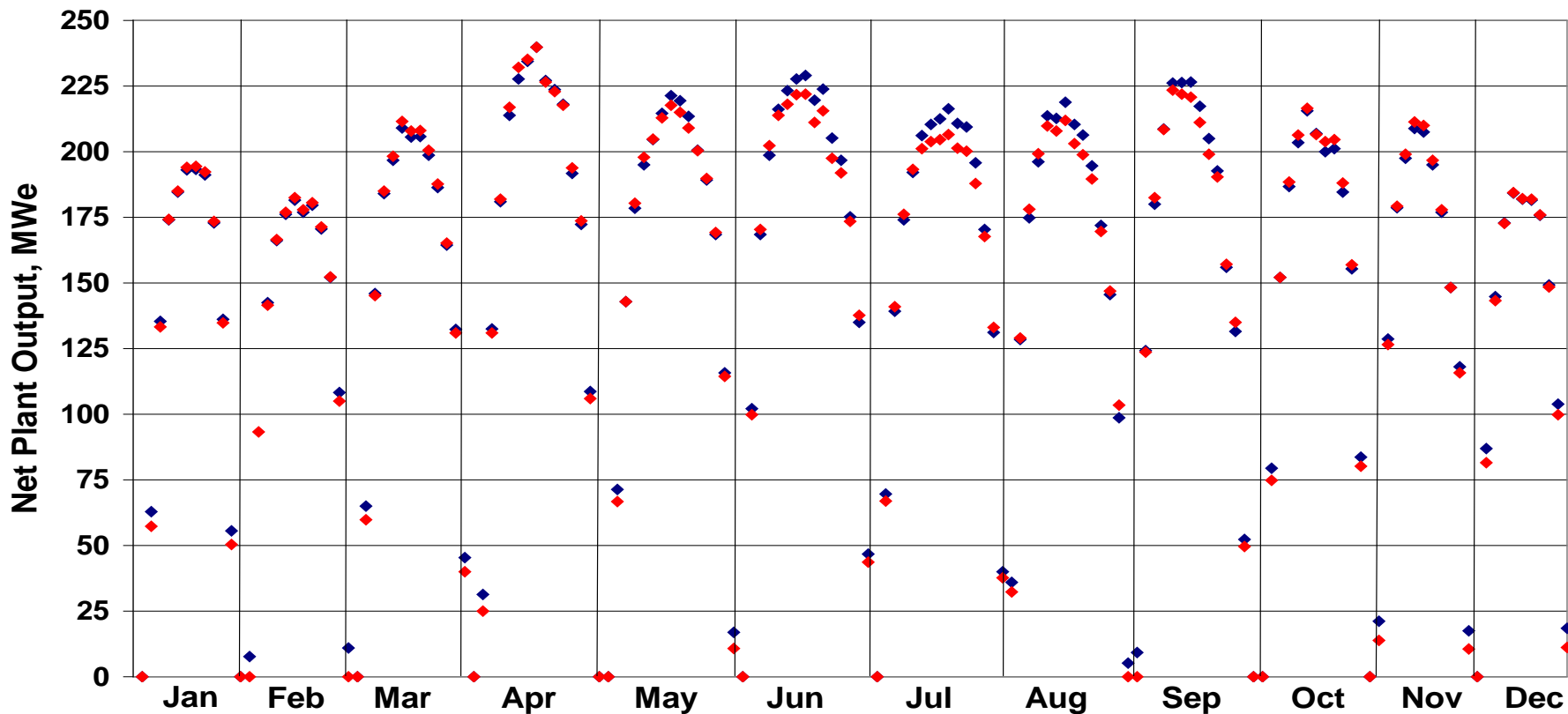
APPENDIX B - FIGURE 13

Beacon Solar Energy Project - Comparison of Output Profiles Wet vs. Hybrid

SEPTEMBER 2009

Comparison of Net Output Profiles

◆ Wet cooled plant ◆ Hybrid plant--Expanded



APPENDIX B