

CALIFORNIA ENERGY COMMISSION
REPORT OF CONVERSATION Page 1 of 1



**Systems Assessment and
 Facilities Siting Division**

FILE: 06-AFC-2

PROJECT TITLE: Highgrove Project

| | | |
|---|---|---|
| <input checked="" type="checkbox"/> Telephone | 916-651-8853 | <input type="checkbox"/> Meeting Location: Email message + 2 attach's |
| NAME: | Robert Worl | DATE: 11-08-07 |
| WITH: | Julie Way, Project Manager AES Highgrove, LLC | |
| SUBJECT: | Revised Water Utilization Information | |

COMMENTS: Email sent at 0830 11-08-07 From Julie Way:
 Hello Bob:

| | |
|-----------------|-------------|
| DOCKET | |
| 06-AFC-2 | |
| DATE | NOV 08 2007 |
| RECD. | NOV 08 2007 |

Please find attached two tables summarizing flow information for the various water alternatives we analyzed in our Supplement C. The information is extracted from the table we included in our Confidential Filing, which table also compiled sensitive and confidential cost information. Providing this additional information will allow you to utilize the nonconfidential flow information in your analysis.

For clarity, I would like to point out two features of these tables. First, the attachment contains flow information for a 15% case (as in our Supplemental C filing). We have also included a table with flow information at a worst-case, 30% annual capacity factor. Second, these tables include a calculation for percent reduction in overall water use from the case utilizing 100% onsite well water and the sewer disposal option. (In past filings, we have calculated a percent reduction in overall water use from a case utilizing 100% onsite well water with the SARI line disposal option.)

We trust this information is helpful in your analysis.

Regards,

Julie Way

Project Director, AES Highgrove, LLC

Attached are 2 tables

| | |
|-----------------------------------|-----------------------------------|
| cc: Cheryl Closson. POS | Signed: <i>Robert Worl</i> |
| | Name: Robert Worl |

PROOF OF SERVICE / REVISED 11/2/07, FILED WITH
 ORIGINAL MAILED FROM SACRAMENTO ON 11/8/07
 TP

AES Highgrove
 Flow Information Chart for Water Alternatives
 15% Annual Capacity Factor

| | Least Cost Option | Current AFC | Impaired Water Options | | | | | | | | | | |
|---|-------------------|-------------|---|--|--|--|---|---|---|--|--|--|--|
| | | | 100% Impaired Water | | | | Blend w/ Discharge to Sewer | | | Blend w/ Wastewater Treatment | | | ZLD |
| | | | 100% Site Well 0% Spring St Sewer | 100% Site Well 0% Spring St SARI | 0% Site Well 100% Spring St SARI | 0% Site Well 100% Spring St Pipe to SARI | 75% Site Well 25% Spring St Sewer | 50% Site Well 50% Spring St Sewer | 25% Site Well 75% Spring St Sewer | 75% Site Well 25% Spring St WW Treatment | 50% Site Well 50% Spring St WW Treatment | 25% Site Well 75% Spring St WW Treatment | 0% Site Well 100% Spring St WW Treatment |
| Cycles of Concentration | 2.7 | 6.5 | 4.0 | 4.0 | 2.0 | 1.5 | 1.3 | 6.0 | 5.5 | 4.8 | 4.0 | 4.0 | |
| Onsite Well Use | | | | | | | | | | | | | |
| gpm | 928 | 735 | 0 | 0 | 842 | 799 | 557 | 561 | 379 | 193 | 0 | 0 | |
| acre-ft/yr | 225 | 178 | 0 | 0 | 204 | 193 | 135 | 136 | 92 | 47 | 0 | 0 | |
| Used for cooling tower makeup (acre-ft/yr) | 151 | 104 | 0 | 0 | 149 | 156 | 116 | 80 | 54 | 28 | 0 | 0 | |
| Spring Street Well Use | | | | | | | | | | | | | |
| gpm | 0 | 0 | 807 | 807 | 281 | 799 | 1,672 | 187 | 379 | 580 | 807 | 807 | |
| acre-ft/yr | 0 | 0 | 195 | 195 | 68 | 193 | 405 | 45 | 92 | 140 | 195 | 195 | |
| Cooling Tower Makeup | | | | | | | | | | | | | |
| gpm | 624 | 431 | 503 | 503 | 819 | 1,293 | 1,925 | 439 | 449 | 470 | 503 | 503 | |
| acre-ft/yr | 151 | 104 | 122 | 122 | 198 | 313 | 466 | 106 | 109 | 114 | 122 | 122 | |
| Percent of Total process flow | 67% | 59% | 62% | 62% | 73% | 81% | 86% | 59% | 59% | 61% | 62% | 62% | |
| Total Process Makeup (excl potable/service water) | | | | | | | | | | | | | |
| gpm | 928 | 735 | 807 | 807 | 1,123 | 1,597 | 2,229 | 748 | 799 | 774 | 807 | 807 | |
| acre-ft/yr | 225 | 178 | 195 | 195 | 272 | 386 | 539 | 181 | 184 | 187 | 195 | 195 | |
| Discharge to Sewer | | | | | | | | | | | | | |
| gpm | 283 | 2 | 2 | 2 | 478 | 952 | 1,584 | 80 | 88 | 103 | 130 | 2 | |
| acre-ft/yr | 68 | 0 | 0 | 0 | 116 | 230 | 383 | 19 | 21 | 25 | 31 | 0 | |
| Discharge to SARI Line | | | | | | | | | | | | | |
| gpm | 0 | 88 | 160 | 160 | 0 | 0 | 0 | 19 | 22 | 25 | 32 | 0 | |
| No. trucks per day (6700/gal/truck) (15-hour day) | 0 | 12 | 22 | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 5 | 0 | |
| Reduction in Overall Process Makeup (gpm) | None | (193) | (121) | (121) | 48 | 68 | 1,381 | (166) | (188) | (144) | (121) | (121) | |
| Reduction in Overall Process Makeup (acre-ft/yr) | None | (47) | (29) | (29) | 47 | 182 | 318 | (44) | (47) | (37) | (29) | (29) | |
| % Reduction in Overall Process Makeup (acre-ft/yr) | None | -21% | -13% | -13% | 21% | 77% | 140% | -19% | -19% | -17% | -13% | -13% | |
| 1. Maximum hours per day used to determine maximum daily flows: | 15 | | | | | | | | | | | | |
| 2. Based on max annual cap factor of: | 15% | | | | | | | | | | | | |
| 3. Conversion factor (gal to acre-foot) | 325,851 | | | | | | | | | | | | |

AES Highgrove
Flow Information Chart for Water Alternatives
30% Annual Capacity Factor

| Cycles of Concentration | Least Cost Option | | Current AFC | | 100% Impaired Water | | Impaired Water Options | | | | ZLD | | | | |
|---|-------------------|----------------|----------------|----------------|---------------------|--------------|------------------------|---------------|---------------|---------------|-------|---------------|---------------|----------------|----------------|
| | 100% Site Well | 100% Site Well | 100% Site Well | 100% Site Well | 0% Site Well | 0% Site Well | 75% Site Well | 50% Site Well | 25% Site Well | 75% Site Well | | 50% Site Well | 25% Site Well | 100% Site Well | 100% Site Well |
| Onsite Well Use | 928 | 735 | 0 | 0 | 0 | 0 | 842 | 799 | 557 | 561 | 379 | 193 | 0 | 0 | |
| gpm | 449 | 366 | 0 | 0 | 0 | 0 | 408 | 396 | 270 | 272 | 184 | 94 | 0 | 0 | |
| acre-lyr | 302 | 209 | 0 | 0 | 0 | 0 | 297 | 313 | 233 | 159 | 109 | 57 | 0 | 0 | |
| Used for cooling tower makeup (acre-lyr) | 1 | 0 | 0 | 0 | 0 | 0 | 281 | 799 | 1,672 | 187 | 379 | 590 | 807 | 807 | |
| Spring Street Well Use | 0 | 0 | 807 | 807 | 807 | 807 | 136 | 396 | 809 | 91 | 184 | 281 | 391 | 391 | |
| gpm | 0 | 0 | 391 | 391 | 391 | 391 | 819 | 1,293 | 1,925 | 439 | 449 | 470 | 503 | 503 | |
| acre-lyr | 0 | 0 | 244 | 244 | 244 | 244 | 396 | 626 | 932 | 212 | 217 | 227 | 243 | 244 | |
| Cooling Tower Makeup | 624 | 431 | 503 | 503 | 503 | 503 | 73% | 81% | 89% | 59% | 59% | 61% | 62% | 62% | |
| gpm | 302 | 209 | 62% | 62% | 62% | 62% | 73% | 81% | 89% | 59% | 59% | 61% | 62% | 62% | |
| acre-lyr | 67% | 59% | 62% | 62% | 62% | 62% | 73% | 81% | 89% | 59% | 59% | 61% | 62% | 62% | |
| Percent of Total process flow | 928 | 735 | 807 | 807 | 807 | 807 | 1,123 | 1,597 | 2,229 | 748 | 759 | 774 | 807 | 807 | |
| Total Process Makeup (excl potable/service water) | 449 | 366 | 391 | 391 | 391 | 391 | 544 | 773 | 1,079 | 362 | 367 | 375 | 391 | 391 | |
| gpm | 283 | 2 | 2 | 2 | 2 | 2 | 478 | 952 | 1,594 | 80 | 88 | 103 | 130 | 130 | |
| acre-lyr | 137 | 1 | 1 | 1 | 1 | 1 | 231 | 461 | 767 | 39 | 43 | 50 | 63 | 63 | |
| Discharge to Sewer | 0 | 88 | 190 | 190 | 190 | 190 | 0 | 0 | 0 | 19 | 22 | 25 | 32 | 32 | |
| gpm | 0 | 12 | 22 | 22 | 22 | 22 | 0 | 0 | 0 | 3 | 3 | 4 | 5 | 5 | |
| acre-lyr | 0 | 12 | 22 | 22 | 22 | 22 | 0 | 0 | 0 | 3 | 3 | 4 | 5 | 5 | |
| No. trucks per day (6700/gal/truck) (15-hour day) | | | | | | | | | | | | | | | |
| Production for Overall Process Makeup (gpm) | Base | (133) | (121) | (121) | (121) | (121) | 148 | 69 | 1,331 | (160) | (169) | (194) | (121) | (121) | |
| Production in Overall Process Makeup (acre-lyr) | Base | (63) | (63) | (63) | (63) | (63) | 94 | 34 | 524 | (87) | (82) | (73) | (69) | (69) | |
| % Production for Overall Process Makeup (acre-lyr) | Base | -21% | -19% | -17% | -17% | -17% | 21% | 7% | 144% | -19% | -18% | -17% | -19% | -19% | |
| 1. Maximum hours per day used to determine maximum daily flows: | 15 | | | | | | | | | | | | | | |
| 2. Based on max annual cap factor of: | 3% | | | | | | | | | | | | | | |
| 3. Conversion factor (gal to acre-foot) | 326,881 | | | | | | | | | | | | | | |

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE
STATE OF CALIFORNIA**

**APPLICATION FOR CERTIFICATION
FOR THE AES HIGHGROVE
POWER PLANT PROJECT**

**Docket No. 06-AFC-2
PROOF OF SERVICE
(Revised 11/2/07)**

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 06-AFC-02
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
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