



## DRA

*Division of Ratepayer Advocates  
California Public Utilities Commission*

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August 31, 2010

Rami Kahlon  
Director, Division of Water and Audits  
505 Van Ness Avenue, 3<sup>rd</sup> Floor  
San Francisco, CA 94102

Re: California American Water Company Advice Letter 853; Golden State Water Company Advice Letter 1409-W; California Water Service Company Advice Letter 1997

Dear Mr. Kahlon:

DRA submits this protest to Advice Letter (AL ) 853 of California American Water Company (“Cal Am”), AL 1997 of California Water Service Company (“CWS”) and AL 1409-W Golden State Water Company (“GSWC”).<sup>1</sup> The ALs were originally filed July 14<sup>th</sup> (Cal Am), July 15<sup>th</sup> (CWS) and July 16<sup>th</sup> (GSWC), but were subsequently re-served to the service list for A.07-01-024 on August 10<sup>th</sup> (Cal Am and CWS) and August 11<sup>th</sup> (GSWC), 2010. The Commission’s General Order 96-B, Water Rule 4.1 (3) requires the service of ALs on “other interested persons, such as parties of record in a related proceeding or persons having a specific interest in the advice letter.” The ALs seek to track “reasonable construction and associated costs ... to the Operational Energy Efficiency Memorandum Account previously authorized by the Commission in D.10-04-030”<sup>2</sup> established pursuant to the proceedings related to A.07-01-024 et al, so serving the ALs on that list was required. DRA’s protest, submitted within 20 days of service on that list, is therefore timely submitted.

In the ALs, Cal Am, CWS, GSWC (collectively “Water IOUs”) request authorization to:<sup>3</sup>

“(1) Commence the implementation of a Research, Development and Demonstration (RD&D) program to design and construction [sic] of prototype, modern high technology Pressure Reducing equipment to reduce the kW loss or increase the efficiency by 50% by using the Operational Energy Efficiency Program to recover the kWh energy being lost in 2010;”

“(2) Expedited Commission approval such that the RD&D kW demand reduction and kWh electrical energy recovery projects can be commenced in 2010 to take advantage of federal tax credits, and;”

<sup>1</sup> On August 4, 2010 DRA separately protested a similar Advice Letter 419 filed by San Jose Water Company (SJWC). The number of this AL was subsequently corrected to 418.

<sup>2</sup> Cal Am AL 853, p.2; GSWC AL, p. 1; CWS AL, p. 1.

<sup>3</sup> Cal Am AL 853, pp.1-2; GSWC AL, p. 1; CWS AL, p. 1.

“(3) To track all reasonable construction and associated costs (the return of and return on such assets) to the Operational Energy Efficiency Memorandum Account previously authorized by the Commission in D.10-04-030.”

The Water IOUs estimates for the projects are shown in Table 1 below:

**Table 1 HTG Estimated Cost projects not including federal tax credits**

	HTG Project Estimated Cost
Cal Am AL 853	\$598,319
CWS AL 1997	\$1,380,300
GSWC AL 1409 W	\$1,344,000
SJWC AL 418	\$1,113,050

Note: The estimated cost of the Water IOUs HTG projects in Table 1 does not include offsets for the federal tax credits.

DRA recommends that the Commission reject the Water IOUs Advice Letters and the proposed hydro-turbine projects because:

- 1) The ALs seek relief that should not be granted via the ALs submitted, but would require a Petition for Modification (PFM) of D.10-04-030 or new applications.<sup>4</sup>
- 2) These projects do not qualify as energy efficiency projects as defined by the Commission’s Energy Efficiency Manual but are renewable generation;
- 3) Approval of the projects would be inconsistent with the Commission’s intention to review cost effectiveness data of a pilot project approved in D.09-11-032 before approving similar projects.

## **Background**

### D.10-04-030 and related Decisions

The Commission issued D.10-04-030 in response to a Petition for Modification of D. 08-11-057, filed by the California Water Association, Southern California Edison Company (SCE), and Pacific Gas and Electric Company (PG&E) regarding Operational Energy Efficiency Programs (OEEP) for several water utilities. D.10-04-030 approved \$3.4 million for pilot programs to improve energy efficiency for well pumps and booster pumps and authorized the water utilities are authorized to establish memorandum accounts for their OEEP costs.

D.10-04-030, the Commission authorized expenditure of funds by the Water and Energy IOUs to jointly perform well and booster operational energy efficiency projects such as installing new pumps and motors and variable speed drives (VSDs), not Water IOU-only hydro turbine generation projects

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<sup>4</sup> Southern California Edison Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company submitted a protest to these ALs on August 17, 2010 suggesting that pursuit of these projects under existing feed in tariffs via AL might be appropriate. However, that course of action would conflict with the Commission’s guidance in D.09-11-032, which directed San Jose Water Company to focus on hydro-turbine projects that benefit its ratepayers by producing power used for operation of the water system, as opposed to sale to an energy utility.

as proposed by the Water IOUs in these Advice Letters. The EE funds granted to the Water and Energy IOUs are shown below in Table 2.

**Table 2 OEEP Budgets by Water Utility in D.1004030<sup>5</sup>**

<b>Water Utility</b>	<b>Well Pump</b>	<b>Booster Pump</b>	<b>Totals</b>
Alco Water Service Company (PG&E)	\$292,000 \$135,000 – Alco \$157,000 – PG&E	\$144,000 \$32,000 – Alco \$112,000 – PG&E	\$436,000 \$187,000 – Alco \$269,000 – PG&E
Del Oro Water Company (PG&E)	N/A	Zero	
California-American Water Company (PG&E)	\$185,000 \$107,000 – CAW \$78,000 – PG&E	\$263,000 \$123,000 – CAW \$140,000 – PG&E	\$448,000 \$230,000 – CAW \$218,000 – PG&E
California Water Service Company (PG&E)	\$107,000 \$84,000 – CWS \$23,000 – PG&E	\$108,000 \$92,000 – CWS \$16,000 – PG&E	\$215,000 \$176,000 – CWS \$39,000 – PG&E
Golden State Water Company (PG&E)	N/A	\$129,000 \$39,000 – GSW \$90,000 – PG&E	\$129,000 \$39,000 – GSW \$90,000 – PG&E
San Jose Water Company (PG&E)	\$349,000 \$180,000 – SJW \$169,000 – PG&E	\$220,000 \$98,000 – SJW \$122,000 – PG&E	\$569,000 \$278,000 – SJW \$291,000 – PG&E
California-American Water Company (SCE)	N/A	\$932,000 (2 projects combined) \$530,000 – CAW \$402,000 – SCE	\$932,000 \$530,000 – CAW \$402,000 – SCE
California Water Service Company (SCE)	\$108,000 \$93,000 – CWS \$15,000 – SCE	N/A	\$108,000 \$93,000 – CWS \$15,000 – SCE
Golden State Water Company (SCE)	\$138,000 \$43,000 – GSWC \$95,000 – SCE	\$162,000 \$60,000 – GSWC \$102,000 – SCE	\$300,000 \$103,000 – GSWC \$197,000 – SCE
East Pasadena Water Company (SCE)	\$243,000 \$157,000 – EPW \$86,000 – SCE	\$55,000 \$39,000 – EPW \$16,000 – SCE	\$298,000 \$196,000 – EPW \$102,000 – SCE
<b>TOTAL Water Utilities</b>	<b>\$799,000</b>	<b>\$1,013,000</b>	<b>\$1,812,000</b>
<b>TOTAL PG&amp;E</b>	<b>\$427,000</b>	<b>\$480,000</b>	<b>\$907,000</b>
<b>TOTAL SCE</b>	<b>\$196,000</b>	<b>520,000</b>	<b>\$716,000</b>
<b>GRAND TOTAL</b>	<b>\$1,422,000</b>	<b>\$2,013,000</b>	<b>\$3,435,000</b>

<sup>5</sup> D.10-04-030, p. 11.

D.10-04-030 was one of a series of decisions issued in response to A.07-01-024 et al., as the Commission first ordered pilot projects to evaluate whether energy utilities should add water conservation programs to other more direct energy-saving programs as part of the utilities' energy efficiency portfolio,<sup>6</sup> and subsequently approved water to wires efficiency programs designed to approve the efficiency of water utility operating systems.<sup>7</sup>

At the outset of the proceeding, the Assigned Commissioner Ruling and Scoping Memo, issued April 24, 2007 (Scoping Memo), noted that there were four potential ways to reduce the overall energy used in delivering water, including water conservation, the use of less energy intensive (gravity-fed or recycling versus groundwater, aqueducts or desalination); improving the efficiency of existing delivery and treatment systems, and the production of energy through water delivery and treatment.

The Scoping Memo observed that "while any of these methods would reduce the net consumption of energy related to water use, the first three appear to be most consistent with an energy efficiency strategy" because they reduce the amount of energy required to use water.<sup>8</sup> Production of energy through water delivery and treatment, such as the use of small hydroelectric generating facilities along water delivery paths "would best be explored in a distributed generation, or renewable energy context." Thus, consideration of hydroelectric generation facilities was not within the scope of A.07-01-024.

D. 09-11-032

In A.09-01-009, SJWC's last GRC application for rate cycle 2010 to 2012, it "proposed to construct and integrate into its operating system three hydro-turbine projects, one each year, at a total cost of \$2,016,000."<sup>9</sup> In response, the Commission, in D.09-11-032, stated the following regarding SJWC's three proposed hydro-turbine projects:<sup>10</sup>

"Although SJWC intends to conduct a detailed analysis of hydro-turbine performance prior to ordering the equipment, it did not substantiate that actual performance would match performance expectations. This approach does not give enough assurance. Therefore, consistent with DRA's proposal, the Cox hydro-turbine project should be undertaken as a two-year pilot project." (emphasis added).

Further elaborating, the Decision also stated:<sup>11</sup>

"Unlike the Cox project, the Alum Rock and Hostetter projects would not provide a direct benefit to SJWC and its ratepayers. Neither Alum Rock nor Hostetter has wells or pumps at their locations. Therefore, any power generated at these locations must be sold back to PG&E under a power purchase agreement. Indirect benefits would result because these projects would improve PG&E's energy reliability during peak demand times,

<sup>6</sup> D.07-12-050, Ordering Paragraph 2, p. 99.

<sup>7</sup> D.08-11-057, p. 2 and Ordering Paragraph 2, p. 25; D.10-04-030, Ordering Paragraph 2, p. 23.

<sup>8</sup> Scoping Memo, p. 5.

<sup>9</sup> D. 09-11-032, p. 20.

<sup>10</sup> D.09-11-032, p. 21.

<sup>11</sup> D.09-11-032, p. 22.

reduce SJWC's carbon footprint, and reduce SJWC's operating expenses with any revenues received from selling power generated from these projects. These kinds of projects ought to be considered in a joint application with PG&E or another joint venture partner or partners. SJWC is in the business of providing quality and reliable water service to its ratepayers and not in the business producing and marketing power. Therefore, hydro-turbine projects that directly benefit SJWC and its ratepayers in providing quality and reliable water service while reducing its purchased power consumption should be given priority over hydro-turbine projects that do not.

The Alum Rock and Hostetter hydro-turbine projects should not be approved at this time. SJWC is encouraged to propose additional hydro-turbine projects that meet this criterion in its next GRC." (emphasis added)

As a result, the Commission found in Findings of Fact 14 and 15 that:<sup>12</sup>

"14. DRA does not oppose SJWC undertaking a Cox hydro-turbine project as a pilot project for a two-year period.

15. Neither the Alum Rock hydro-turbine project nor the Hostetter hydro-turbine project has wells or pumps at their locations."

Confirming its intent further, the Commission stated in Conclusions of Law 10 through 13 that:<sup>13</sup>

"10. The Cox hydro-turbine project is reasonable and should be adopted because it would directly benefit SJWC and its ratepayers by enabling SJWC to use its own produced energy to run its Cox facilities, and would assist SJWC in providing reliable water service to its ratepayers during peak purchased power demands, curtailments and revolving outages while reducing its purchased power needs.

11. Any power generated at the Alum Rock and Hostetter sites by hydro-turbine units must be sold back to PG&E under a power purchase agreement.

12. Hydro-turbine projects that directly benefit SJWC and its ratepayers in providing quality and reliable water service while reducing its purchased power consumption should be given priority over hydro-turbine projects that do not.

13. The Alum Rock and Hostetter hydro-turbine projects should not be approved at this time."

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<sup>12</sup> D.09-11-032, p. 50.

<sup>13</sup> D.09-11-032, p. 54.

Thus, the Commission has expressed reservations about a water utility's use of hydro-turbine projects to produce energy that is not needed to run the utility's system, but is instead sold to an energy utility, and also about the cost effectiveness of such projects.

### Discussion

1. The relief in AL's 853, 1409-W and 1997 is inappropriate to seek via Advice Letter.

The Commission's Advice Letter process "provides a quick and simplified review of ... utility requests that are expected to be neither controversial nor to raise important policy questions."<sup>14</sup> For example, utilities can use ALs to change their tariffs in a manner previously authorized by the Commission. That is not the case here. While the AL's claim that the proposed hydro-turbine generator recovery projects are "a natural extension of the ...OEEP, which is a collaborative effort between the Commission, the investor-owned water utilities" and the regulated energy utilities,"<sup>15</sup> they apparently did not collaborate with their energy utility partners in submitting the ALs.<sup>16</sup> Moreover, the ALs seek relief that is inconsistent with or in direct contravention of D.10-04-030, the decision that established the memorandum accounts through which the water utilities seek to record the costs of the hydro turbine generator recovery projects.

D.10-04-030 authorized expenditures for improving the energy efficiency of water delivery, through energy/water utilities partnerships.

"The Joint Petitioners propose that the Water Utilities be responsible for water system equipment costs, including VSDs, new pumps and new motors, and the incremental operating and maintenance costs. The Energy Utilities will be responsible for OEEP Phase 1A hardware (except VSDs) and software, additional information technology equipment and system integration consulting costs, as funded through this proceeding." (emphasis added).

The hydro-turbine generator recovery projects proposed in the ALs are unlike the operating system improvements approved in D.10-04-030, which would save but not generate electricity. In fact, the Scoping Memo for A.07-04-024 et al, recognized that generation projects "would best be explored in a distributed generation, or renewable energy context."<sup>17</sup>

Moreover, the Commission in D.10-04-030 granted the Division of Water and Audits (DWA), only limited authority to adjust the utilities OEEP budgets stating specifically:<sup>18</sup>

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<sup>14</sup> General Order 96 B, Section 5.1, p. 8

<sup>15</sup> Cal AM AL 853, p. 2; GSW AL 1409-W, p. 2; CWS AL 1997, p. 2

<sup>16</sup> See Joint Protest of Southern California Edison Company, Pacific Gas & Electric Company, and San Diego Gas & Electric Company to Four Advice Letters Seeking Commission Authority for In-Conduit Hydro-Electric Generation Using Operational Energy Efficiency Program Funds, submitted to the Commission on August 17<sup>th</sup>, 2010

<sup>17</sup> Scoping Memo, p. 5.

<sup>18</sup> D.10-04-030, p. 17.

“We limit DWA’s authority to adjust budgets of individual pilot programs to 15 percent above or below the estimates in the Joint Petition, consistent with fund-shifting authority for most energy efficiency programs approved in D.09-09-047.”

Notably, in D.10-04-030, the Commission did not grant DWA either the authority to a) change the scope of the OEEP projects from EE to renewable generation, b) to allow the Water IOUs to perform the project on their own and not jointly with the Energy IOUs and c) to adjust the Water IOUs OEEP budgets by more than 15%.

Ordering Paragraph 1. of D.10-04-030 specifically states:<sup>19</sup>

“The Commission’s Division of Water and Audits is authorized to approve Operational Energy Efficiency Programs pilot budget changes up to 15 percent above or below levels requested by each water utility in the Petition of the California Water Association, Pacific Gas and Electric Company, and Southern California Edison Company for Modification of Decision 08-11-057.” (emphasis added).

At a minimum, if the water IOUs wish to recover the costs of the proposed hydro-generator turbine projects in their OEEP accounts, then a petition to modify D.10-04-030 would be necessary.

2. These projects are not energy efficiency projects as defined by the Commission’s Energy Efficiency Manual but are renewable generation projects.

According to the ALs, the proposed hydro-generator turbine projects would generate electricity and would help meet California’s “renewable portfolio goal of generating power from green renewable sources.”<sup>20</sup> While that is a laudable goal, the hydro-generator turbine projects are not energy efficiency projects, but are renewable generation projects outside the scope of energy efficiency proceedings. The Commission’s energy Efficiency Policy Manual, version 4, adopted in Decision 07-11-004, defines energy efficiency measures as

“An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced energy use (purchased from the distribution utility) while maintaining a comparable or higher level of energy service as perceived by the customer.”<sup>21</sup>

The definition also includes specific and limited exceptions of some solar devices, solar hot water heaters and solar-powered water circulators. Proposed expansions to the definition of energy efficiency measures have been made via petitions to modify D.07-11-004.<sup>22</sup> Using funds collected from ratepayers for energy efficiency projects to pay for the proposed hydro-generator turbine

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<sup>19</sup> D.10-04-030, Ordering Paragraph 1, p. 23.

<sup>20</sup> Cal Am AL 853, p.3; GSWC AL 1409-W, p. 2; CSWC AL 1997, p. 2.

<sup>21</sup> EE Policy Manual, Version 4. Appendix B, p. 5.

<sup>22</sup> For example, in D.07-11-004, the Commission granted a Petition for Modification by Pacific Gas and Electric Company (for the inclusion of a specific solar water circulation technology as an energy efficiency measure.

projects would be inconsistent with the Commission's policy that "Electric PGC collections must fund electric energy efficiency programs."<sup>23</sup>

3. Approval of the projects now appears be inconsistent with the Commission's intention to review cost effectiveness data of a pilot project approved in D.09-11-032 before approving similar projects.

As discussed above, the Commission in D.09-11-032 directed San Jose Water Company (SJWC) to first complete a pilot study of a the Cox project before proposing additional hydro-turbine generator energy projects. The Commission was concerned because the projects not approved in D.09-11-032 were at locations where SJWC could not use the power to operate pumps for the benefit of its water ratepayers. Instead, San Jose Water Company would need to sell any power produced to PG&E under a purchase power agreement. The Commission found that projects:

"directly benefit SJWC and its ratepayers in providing quality and reliable water service while reducing its purchased power consumption should be given priority over hydro-turbine projects that do not."<sup>24</sup>

The Commission also noted that DRA's review of cost effectiveness data in SJWC rate case showed that the projects had much longer payback periods than that projected by SJWC, possibly as long as 30 years.<sup>25</sup>

Given the Commission's legitimate concern about the cost-effectiveness and benefits of hydro-turbine projects for water ratepayers, it should not approve any additional hydro-turbine-projects until the results of the Cox project are evaluated, and a full cost-effectiveness analysis is completed based on actual performance data.

**Recommendation**

The pending ALs seek to redirect and expand a memorandum account budget granted jointly to the Water and Energy IOUs in D.10-04-030 for well and booster energy efficiency projects in its Operational Energy Efficiency Program (OEEP), for unproven and unrelated HT generation projects. The hydro-turbine generation projects the water IOUs are seeking memorandum account treatment for are not as they claim, a "natural extension of the Operational Energy Efficiency Program",<sup>26</sup> but projects different in scope, with unproven cost-effectiveness, which the Commission is currently testing for cost effectiveness (through, for example SJWC's Cox pilot hydro turbine generation project). Specifically, these projects are not EE projects as the Energy IOUs point out, but renewable generation projects.<sup>27</sup>

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<sup>23</sup> EE Policy Manual, Version 4, p. 6.

<sup>24</sup> D.09-11-032, p. 20.

<sup>25</sup> D.09-11-032, p. 20.

<sup>26</sup> Cal Am AL 853, p. 2; GSWC AL, p. 2; CWS AL, p. 2.

<sup>27</sup> Joint Protest of Southern California Edison Company, Pacific Gas & Electric Company, and San Diego Gas & Electric Company to Four Advice Letters Seeking Commission Authority for In-Conduit Hydro-Electric Generation Using Operational Energy Efficiency Program Funds, submitted to the Commission on August 17<sup>th</sup>, 2010, p. 2.



Furthermore, as shown in table 3 below, the Water IOUs estimates (other than Cal Am)<sup>28</sup> for their HTG projects exceed by at least 400% the amounts that the Commission authorized the Water IOUs to spend on their OEEP projects which far exceeds the 15% adjustment allowed by D.10-04-030 upon DWA authorization.

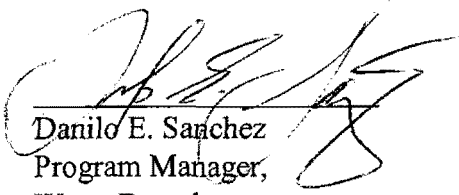
**Table 3 Comparison of HTG Cost Estimates with OEEP Budgets granted to Water IOUs**

	HTG Project Estimated Cost	OEEP Budget Granted to Water IOUs in D1004030	% increase sought
Cal Am AL 853	\$598,319	\$760,000	<u>78%</u>
CWS AL 1997	\$1,380,300	\$269,000	<u>513%</u>
GSWC AL 1409 W	\$1,344,000	\$142,000	<u>946%</u>
SJWC AL 418	\$1,113,050	\$278,000	<u>400%</u>

To clarify, in each Advice Letter filing the water IOUs are not proposing to substitute these HTG projects for their existing OEEP budgets. Instead, the water IOUs' proposed requests are in addition to the memorandum account budgets that they were authorized for the OEEP projects in D.10-04-030.

The Commission should not be swayed by the Water IOUs' use of a federal tax credit as an excuse to ignore its prior decisions, as the federal dollars will be better spent on other projects that meet federal guidelines and are proven to be cost-effective to those who will have to pay the remaining capital costs – namely the Water IOUs' ratepayers, as opposed to the Water IOUs unproven go-it-alone proposals.<sup>29</sup>

For all of these various reasons, DRA protests the ALs filed by the Water IOUs and recommends that the Commission reject these advice letters as not authorized by or consistent with Commission decision D.10-04-030 or D.09-11-032. The Commission should direct the water IOUs to propose any future hydro-turbine projects only after cost effectiveness data has been gathered from the Cox pilot project, and to propose any such projects jointly with an energy utility, including a cost-effectiveness analysis that shows that it meets the criterion that they “directly benefit ratepayers,” in their respective next general rate case. Should you have any questions regarding this, please contact Nihar Shah at (415) 703 5251 or [nks@cpuc.ca.gov](mailto:nks@cpuc.ca.gov).

  
Danilo E. Sanchez  
Program Manager,  
Water Branch,  
Division of Ratepayer Advocates

<sup>28</sup> DRA notes that Cal Am has separately filed for its OEEP projects in its currently ongoing statewide GRC.

<sup>29</sup> SJWC AL 418, p. 5.

Mr. Rami Kahlon  
August 25, 2010  
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cc:

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Ronald Moore, GSWC  
David P. Stephenson, Cal Am  
Palle Jensen, SJWC  
Darin T. Duncan, California Water Service Company  
Mikhail Haramati, CPUC Energy Division  
Jim Boothe, DWA  
Service List for A.09-01-009  
Service List for A.07-01-024  
Service List for R.09-11-014