



August 24, 2010

Raj Naidu, Water Division
Tariff Unit California Public Utilities Commission
505 Van Ness Avenue, Room 4005
San Francisco, CA 94102

RE: The Utility Reform Network's Response to Advice Letters from Four Water Utilities Seeking Commission Authority for Research, Development and Demonstration Program for Hydroturbine Generators through the Operational Energy Efficiency Program Memorandum Account

Dear Mr. Naidu:

The Utility Reform Network (TURN) submits its response to the Advice Letters of California American Water Company (CalAmWater), Golden State Water Company (GSWC), California Water Service Company (Cal Water), and San Jose Water Company (SJWC)(Water Utilities). These advice letters, submitted on July 14, 15, and 16, 2010 respectively, seek Commission approval to:

- (1) Implement a Research, Development and Demonstration (RD&D) program to design and construct "prototype, modern high technology pressure reducing equipment to reduce the kW loss or increase the efficiency by 50%" to recover kWh energy lost in 2010;
- (2) Expedite Commission approval for projects to begin in 2010 in order to take advantage of available federal tax credits;
- (3) Track "all reasonable construction and associated costs (the return of and return on such assets)" to the Commission-authorized Operational Energy Efficiency Memorandum Account.

It would appear that the projects proposed by the Water Utilities could potentially contribute to GHG reduction and renewable energy generation by recovering energy that would otherwise be dissipated during water delivery and distribution. TURN supports innovative technologies that can harness otherwise wasted energy through cost-effective means. Unfortunately, the advice letters raise more questions than they have provided answers. TURN is concerned that (1) the Operational Energy Efficiency Program (OEEP) within the energy efficiency arena is not the appropriate venue for future recovery of the proposed programs' costs, (2) the Water Utilities have possibly misdirected their time and resources that would be better spent seeking support and action in the distributed generation or renewable energy context, and (3) the Water Utilities have not provided sufficient detail on the cost-



effectiveness, feasibility and technical design of the proposed energy recovery systems to explain how the technology would yield the proposed benefits.

When the Commission approved pilot water conservation programs within the energy utilities' energy efficiency programs in 2007, it noted that California must both conserve water and reduce the amount of energy needed to meet water customer demand. D. 07-12-050, Order Approving Pilot Water Conservation Programs Within the Energy Utilities' Energy Efficiency Programs, sets out the criteria for approving pilot water conservation programs:

- (1) [r]educe energy consumption related to water use in a manner that should prove to be cost-effective for all of the customers of the sponsoring energy utilities;
- (2) [c]reate a methodology for calculating cost-effectiveness and evaluating water-derived energy efficiency programs;
- (3) [d]etermine if, in fact, it is cost-effective to save energy through programs that focus on cold water;
- (4) [b]etter understand how energy is used in the California water system;
- (5) [t]est a diverse set of water energy programs and measures, with particular emphasis on new technologies and low-income customers;
- (6) [b]etter understand what programs and measures are likely to save water and energy;
- (7) [p]rovide the basis for meaningful ex-post project assessment;
- (8) [s]timulate new partnerships; and
- (9) [b]etter understand the potential benefits of pursuing each of the strategies identified in the October 16, 2006 ruling in A.07-01-024 et al.:
a. Conserving water; b. Switching to less energy-intensive water sources; and c. Increasing the energy efficiency of current water delivery.¹

The Commission has distinguished the three strategies outlined in point 9 above from the kind of technology proposed here by the Water Utilities, which would use water delivery and treatment systems to “produce more usable energy”². In an April 2007 Ruling, Commissioner Grueneich clarified that activities such as these, in the form of “small hydroelectric generating facilities along water delivery paths”, would “best be explored in a distributed generation, or renewable energy context.”³ In addition, the Self Generation Incentive Program could have potentially tackled the Water Utilities' projects; however, at this time, the Commission does not include in-conduit hydroelectric generation as an eligible technology for the Self-Generation Incentive Program.

In light of these and other unresolved concerns, TURN recommends that the Commission direct the Water Utilities to provide supplemental information on the issues raised below:

¹ D.07-12-050, p. 8 [emphasis added].

² Id. at p.8.

³ Assigned Commissioner Ruling and Scoping Memo in A.07-01-024 (April 23, 2007), p. 5.



(1) The Commission is required to pursue all cost-effective energy efficiency savings. As such, the energy efficiency proceedings have taken considerable time and effort to ensure that ratepayer funded utility energy efficiency programs align with the Strategic Plan and are cost-effective. TURN recognizes that merely recording costs in their OEEP Memorandum Account does not ensure recovery of those costs without satisfying prudence and reasonableness scrutiny.⁴ Even so, there should still be at least a preliminary determination that the costs proposed for recording within the energy efficiency arena are actually energy efficiency-related costs. Thus, the Water Utilities need to demonstrate why their proposed energy recovery systems and hydroturbine generation projects warrant consideration within the energy efficiency context, and not within renewable energy or other programs. As it has done in the past, the Commission can provide clarification on the appropriate regulatory arena for the Water Utilities' requests. TURN encourages the Water Utilities to work closely with the Commission to find a suitable "home" for the proposed technology, and urges the Commission to take timely action once that "home" has been identified.

(2) In D.07-12-050, the Commission expressed concern that customers who do not benefit from proposed energy savings may end up paying for technologies that have not benefited them. In light of this, the Water Utilities should discuss why ratepayers who fund energy efficiency or any other eligible program should fund the hydroturbine generation projects, if approved. Moreover, the Water Utilities note that electric energy from the hydroturbines will "enter the neighborhood power grid and be distributed to residences." Additional details are necessary to address the possibility that a Water Utility may receive duplicative sources of funding (such as funding through the OEEP mechanism and revenues from future power sales) when it feeds energy into the electric grid.

(3) As noted above, cost-effective design is a key factor in the Commission's review of energy efficiency portfolios. If a Water Utility seeks to carve out space (and funding) in the energy efficiency proceeding for its proposed hydroturbine generator project, it needs to present specific data addressing the project's cost-effectiveness that would permit other interested parties and, ultimately, the Commission to evaluate costs and benefits.⁵

⁴ Decision 10-04-030 at 32: "To the extent that the Water Utilities seek recovery of any net costs recorded in their Operational Energy Efficiency Program Memorandum Accounts, the utility is not entitled to a presumption that its OEEP costs are appropriate types of costs to recover in addition to rates that have been otherwise authorized, or that the costs are reasonable or prudently incurred. The utility should bear the burden of proving the prudence and reasonableness of the costs and the appropriateness of separate recovery of these costs."

⁵ See Decision 09-12-022, Order Modifying Decisions 05-04-051 and 07-11-004, requiring that "a utility file an Advice Letter showing any new approved stand-alone solar-powered energy efficiency measure is cost-effective before it can be added to an existing energy efficiency portfolio, such as the portfolios approved in D.09-09-047." D.09-09-047 approved portfolios of energy efficiency measures based on cost-effectiveness tests for the entire portfolio.



(4) The Water Utilities should verify that the proposed energy recovery systems will perform as expected and yield projected benefits. Similarly, what are the Water Utilities' grounds for concluding that their proposed projects are eligible for federal tax credits and ARRA grants, or any time constraints associated with obtaining such funding?

TURN recognizes the accelerated timeline the Water Utilities purport to face in light of federal tax credits, and believes that the Commission, if provided sufficient information, can make a timely determination that will not compromise these projects, if it approves them. It is all the more necessary, in light of the shortened timeframe, that the Water Utilities, with Commission guidance, substantiate their projects' eligibility as energy efficiency measures or as programs more suited to other proceedings and financing mechanisms. In light of the questions we raise, TURN recommends that the Commission direct the Water Utilities to supplement their advice letters accordingly.

Respectfully submitted,

/s/ MARYBELLE C. ANG

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Service List A.07-01-024
Service List R.09-11-014