El Dorado County Citizens for Water
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California Energy Commission
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RPS Proceeding
1516 9th Street
Sacramento, CA 95814-5512

September 10, 2010

Subject: RPS Proceeding, Docket Nos. 02-REN-1038 and 03-RPS-1078 – Request to Modify RPS Guidelines Criteria for In-Conduit Water System Hydroelectric Generation Projects and Associated Water Storage Operations

Water distribution systems in California's mountain counties convey tremendous amounts of water through thousands of feet of elevation change, presenting substantial opportunities for distributed energy generation (and for off-peak grid loading through the scheduling of in-system pumping). However, because of the water system designs and operations, most of the in-conduit hydroelectric opportunities require new pipelines, new water storage tanks, and/or other new water system components, making them ineligible for RPS Certification (and therefore Feed-In Tariff programs) under the Energy Commission's current RPS Guidelines.

Request to Modify RPS Guidelines

This is to request that the Energy Commission modify its RPS Guidelines to qualify in-conduit hydroelectric facilities that would be associated not only with existing, but also with new, water system infrastructure. As written, the Energy Commission's RPS Guidelines do not qualify a "conduit hydroelectric facility" as RPS eligible unless the project is added to an "existing conduit" that was in place prior to the effective date of the authorizing legislation (AB 809), which was January 1, 2008. However, the governing regulation (Sections 399.12(1)(A) and (B) of the authorizing Public Utility Code) seems to allow new small hydro projects "...unless it will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow."

The RPS Guidelines now in place appear to define "Conduit hydroelectric facility" based on Public Utility Code Section 399.12(a), which refers to projects that use "existing" conduits. This definition seems to be both: 1) inconsistent with the permitting of new facilities (i.e., the in-conduit hydroelectric facilities), and 2) contrary to the intent of the authorizing legislation (AB 809) that focuses on avoiding adverse effects to streams and associated instream beneficial uses.

Based on the above, we respectfully request that the Energy Commission modify the RPS Certification Guidelines to clarify that small hydroelectric generation associated with new facilities do qualify for RPS Certification "...unless it will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow." Attached are suggested revisions to the RPS Guidelines.

Large Potential for Small Hydroelectric in Mountain Counties

Mountain county water systems are currently operated to respond instantaneously to customer demands. The water systems convey treated and raw water supplies through pipelines, storage tanks and reservoirs, and treatment plants, between which there are large changes in elevation that are well-suited for small hydroelectric generation. Most gravitational pressures are now controlled through pressure reducing valves, and significant pumping often is required to distribute supplies to customers. The elevation drops and pumping offer tremendous opportunities for on-peak energy generation and off-peak energy storage.

In El Dorado County alone, a recent study identified more than 30 MW of small hydroelectric potential associated with the existing water systems. Most of these and other hydroelectric projects would have energy capacities below 1 MW, making them eligible for the economically attractive Feed-In Tariff programs of the investor-owned utilities (IOU). Yet, statewide applications for the program have been very limited as evidenced by the unallocated capacity under the IOU FIT programs. We believe that the proposed modification to the RPS Guidelines described above will greatly increase public water purveyor interest and applications for qualifying facilities under the FIT program.

Secondary Benefits of Requested Change in RPS Guidelines

The Energy Commission and California Public Utilities Commission (CPUC), together with the California Independent System Operator (CAISO), are investigating ways to increase distributed generation and energy generation during on-peak periods. The above recommended changes to the RPS Guidelines would not only promote in-system renewable energy generation, it also would help to promote the CPUC and CAISO statewide efforts to increase distributed and peak period generation.

Additional secondary public benefits would include: 1) greater electric utility/water purveyor coordination on distributed generation resources and pumping loads, 2) increased water system storage and water supply reliability in the high fire-risk foothill and mountain regions of the state, 3) creation of opportunities to schedule in-system, small-scale pumped storage that, on a statewide basis, could help the CAISO with its need for off-peak energy storage, and 4) creation of jobs in both rural and urban counties where water purveyors decide to add small hydroelectric generation to their water system operations.

We greatly appreciate your consideration of this request, and look forward to the possibility of expanding hydroelectric generation in El Dorado County's water systems.

Sincerely,

Harry J. Dunlop
Chair

Cc: Petar Ristanovic, CAISO Energy Storage Program

Citizens for Water Suggested Change to CEC-300-2010 RPS Eligibility Guidelines, page 23

The following underlined text shows the suggested changes to the Guidelines:

b. Conduit Hydroelectric

To be eligible for the RPS, a conduit hydroelectric facility must use for its generation only the hydroelectric potential of <u>either a new or</u> an existing pipe, ditch, flume, siphon, tunnel, canal, or other manmade conduit that is operated to distribute water for a beneficial use.