

Energy - Docket Optical System

From: Floyd Wicks [floyd1647@gmail.com]
Sent: Thursday, May 09, 2013 5:41 PM
To: Energy - Docket Optical System
Subject: Docket Number: 12-AAER-2C: Water Appliances (faucets, toilets, urinals)
Attachments: Final PUC Piece.pdf

Categories: Ready to Docket

California Energy Commission

DOCKETED

12-AAER-2C

TN # 70728

MAY 10 2013

To California Energy Commission:

Please include the attached flyer in your quest to consider the effects of water appliances, as it relates to efficiency standards in California. As shown on the attachment, there is a definite connection between water and energy; especially in California. The attachment highlights the "route" taken by water, from the source to the tap and then on to the wastewater treatment plant. Here are the energy savings along the way:

- Pumping from aquifer: 1.8 kWh per 1,000 gallons
- Water Treatment Plant: 2.5 -3.2 kWh per 1,000 gallons
- Pipeline conveyance (more pumping): 9.2 kWh per 1,000 gallons
- Waste Water Treatment: 3.8 to 9.5 kWh per 1,000 gallons

The State of California's Energy Commission should make sure that the most efficient toilet(s) get installed in State-mandated programs such as the Energy Savings Assistance Programs (ESAP), offered by the large energy utilities which are regulated by the CPUC. As it stands now, there are hundreds of thousands of homes being "retrofitted" by the energy utilities' contractors throughout California. The most cost-effective time to install these devices, i.e. toilets, shower heads and faucet aerators, is when the contractor is already in the home! Hence the byline on the attached flyer: *save more energy. just add water.*

There are several water utilities in California which are now specifying the 0.8 gallon per flush "Stealth", manufactured by Niagara Conservation Corporation, for example: Elsinore Valley MWD, Eastern MWD, Irvine Ranch WD, California Water Service Co. and others. (see: www.niagaraconservation.com) The Energy Commission has recognized the significant percentage of the State's energy that is used to process, pump and then re-process water; let alone the energy needed to heat the resource. (greater than 19% of the State's energy) As such, consideration should be given to the above "just add water" theme and make it a part of the State-mandated ESAP program for low income families, which involves about 25% of the State's populace.

It should also be recognized that for each 10,000 homes retrofitted with these high technology products, wastewater flow is reduced by a significant 1,000,000 gallons per day, which is actually saved during the energy "peaking" times as well; adding myriad benefits to the State as a whole, by freeing-up valuable capacity in wastewater facilities and potable water treatment capacity as well.

Thank you for your kind consideration of the above submission.

Best regards,

Floyd E. Wicks

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embedded energy cost of home water use



1.8 kWh per 1000 gallons

aquifer / groundwater



2.5 - 3.2 kWh per 1000 gallons

treatment



9.2 kWh per 1000 gallons

conveyance



3.8 - 9.5 kWh per 1000 gallons

waste water



The amount of electrical energy California consumes for water related energy use.

19%

save more energy. just add water.



homeowner savings with the **niagara stealth™** system



Total Savings per household

San Francisco

1 yr = \$756.80 10 yrs = \$7568

Los Angeles

1 yr = \$292.80 10 yrs = \$2928

San Diego

1 yr = \$402.80 10 yrs = \$4028

Costs shown are water and sewerage per 40,000 gallons of water saved annually. Water based on local water utility and sewerage rates. Calculations based on exclusive use of the Stealth System in a household of 4 persons.



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