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Comments from Natural Resources Defense Council (NRDC)

California Energy Commission
Docket Unit, MS-4
Docket No. 17-AAER-10
715 P Street
Sacramento, California 95814

RE: Irrigation Controllers â€“ Staff Analysis and Proposed Regulatory Language

These comments are submitted for the record of Docket 17-AAER-10 on behalf of the Natural Resources Defense Council. We strongly support the prompt completion of this rulemaking. A strong efficiency standard for landscape irrigation controllers is among the most significant opportunities currently available for state action to improve urban water efficiency. In a typical year, nearly half of Californiaâ€™s supply of treated drinking water is used outdoors, largely for landscape irrigation. State efficiency standards for new irrigation controllers can achieve major water savings as new landscapes are installed and as the existing stock of these products turns over in the next ten years.

Scope. The standard should exclude hose-bib controllers.

Automatic irrigation systems supplanted irrigation with a garden hose in California long ago. The larger and newer the landscape, the more likely it will have an automatic irrigation system, and then greater the opportunity for water savings from an efficient controller. For many owners of older, smaller landscapes that still irrigation with a garden hose, a simple clock timer may provide modest water savings by preventing the overwatering that can occur when a manually operated hose bib is left running too long.

Hose-bib weather-based controllers are a niche product in the controller market. While eligible for labeling under the EPA WaterSense Program, few are available on the market today. The proposed scope of the standard as recommended by the Staff Report would incorporate hose-bib controllers, and require them to meet all of the standardâ€™s technical requirements. Unlike the voluntary WaterSense labeling program, bringing these products within the scope of a Title 20 efficiency standard will effectively drive hose-bib clock timers from the market in California. We recommend against this approach. Some garden hose irrigators may respond to the cost and complexity of a hose-bib weather-based controller by simply forgoing any irrigation controls that might improve efficiency. This product class can be reassessed in future years if and when hose-bib weather-based controllers become more widely available, and importantly, more specific information is developed on the hose-end irrigation use case in California, including, likely costs and customer savings.

Alternate 1 (Include Rain Sensor) should be reconsidered.

Rain shutoff devices are not an option in California. Current state landscape regulations (MWELO) require that all newly installed landscape irrigation systems have sensors, either integral or auxiliary, that suspend or alter irrigation operations during unfavorable weather conditions. (23 CFR Â§ 492.7(a)(1)(D)) The Department of Water Resources has proposed draft revisions to these regulations, but the wording of this requirement remains unchanged. The Commissionâ€™s standard for irrigation controllers should complement and reinforce DWRâ€™s landscape regulations. The Staff Report (p.31) found that a) many rain sensors are available; b) many landscape irrigation controllers are compatible with a rain sensor; c) rain sensors would provide significant water savings; and d) there is enough information to analyze cost-effectiveness, technical feasibility, and statewide water savings. The Staff also noted (p. 19) the availability of the SWAT Testing Protocol Version 3.0 for Rainfall Shutoff Devices. The outstanding issue appears to be the lack of a consensus performance standard for such devices.

We recommend that the Staff reconsider the omission of rain sensors from the controller standard and propose for public comment either a prescriptive or performance standard for rain shutoff devices that would be incorporated within the irrigation controller standard.

Chapter 9: Equity Analysis offers little meaningful information.

The equity analysis in Chapter 9 contains two significant assumptions that are not accurate. The Staff report asserts, without foundation, that low-income households typically pay for water utility service at a discounted price. In fact, most retail water suppliers in California are public agencies subject to Proposition 218, and very few offer meaningful discounts on the variable charges of low-income households. Notably, the discount offered by the Los Angeles Department of Water and Power was disallowed as a result of litigation within the past 2 years. State-regulated investor-owned water companies are not subject to Proposition 218, and at the direction of the CPUC, Class A water companies do provide discounts for their low-income customers, but such water suppliers serve only 15-20% of California households. Additionally, some of these discounts are applied to fixed charges rather than variable charges. Nevertheless, Staff applied a 30% discount to the water rate when performing cost analysis to ensure proposed standards remain cost effective. 30% might be the high end of the range for IOUs, but a 30% statewide average discount is completely unsupported.

Most low-income households that pay a water bill are charged the same rate as other residential customers, particularly for the variable charges that properly make up the avoided cost of water. To the extent that the Staff Analysis is revised to more accurately reflect the limited discounts available to low-income water customers, the proposed standard will be demonstrated to be even more cost-effective for this group.

A more meaningful discussion of the equitable distribution of the benefits of the

proposed standard would examine the relative share by income of households using automatic irrigation systems. Low-income households are likely underrepresented among purchasers of automatic irrigation controllers. Measures such as the Low-Income Assistance Program operated by SoCal Gas to replace inefficient controllers with smart controllers at the homes of low-income customers is one component of a strategy to broaden the benefits of water-efficient irrigation controllers.

Appendix A: The Cost of Water is too low.

To establish cost savings estimates and economic feasibility for the proposed standard, the Staff Analysis developed a weighted average of $6.13 per 1000 gallons for the value to assign to saved water. We agree with the staff assessment that retail water pricing data in California are fragmentary and inconsistent. One significant complication in developing a statewide weighted average for the avoided cost of water is that many households are charged for sanitary sewer service based to some degree on their metered water usage. This practice extends to about 30% of California households, including those in such major cities and Los Angeles, San Diego, and San Francisco. We note that two sources that the Staff appeared to draw from â€“ a compendium of state-regulated investor-owned water company rates, and the State Water Board electronic annual reports â€“ would not include sewer charges in water rates. As sewer charges are frequently as large or larger than water charges, this can be a significant source of error in estimations of the customerâ€™s avoided cost of water.

NRDC, SPUR, and allied organizations undertook a similar effort in 2022 to estimate the value to consumers of the water savings that would result from a low-income direct-install retrofit program. In our 2022 analysis, we arrived at $8.13/hcf for a statewide estimate for the value of saved water to residential consumers. This equates to $10.87/kgal, which is significantly higher than the figure in the Staff report. This estimate was derived from the following assumptions â€“

$3.64/hcf volumetric charge for small water systems (SWS) (drinking water only)

$9.34/hcf volumetric charge for large water systems (LWS) (water + wastewater) *

$1.20/hcf wastewater charge for SWS

5.00 population served by SWS (millions)

13.68 population served by LWS (millions)

$8.13 population-weighted mean volumetric rate water + wastewater

* derived from the population-weighted variable water and sewer charges for the 15 largest retail water suppliers, serving approximately 34% of the total state population

Water and wastewater charges have continued to rise since this rate information was

collected in 2022. We urge the Staff to revisit this issue, and we would be glad to discuss water pricing further with Staff as may be permitted prior to the initiation of formal rule-making.

Thank you for your attention to these views.

Respectfully submitted,

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