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Irrigation Controllers Revised Draft Staff Report Comments

This letter comprises the comments of the Pacific Gas and Electric Company (PG&E), San Diego Gas and
Electric (SDG&E), and Southern California Edison (SCE), collectively referred to herein as the California
Investor-Owned Utilities (CA IOUs), in response to the California Energy Commissionâ€™s (CEC) Revised
Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers (Staff Report).

Additional submitted attachment is included below.

April 17, 2026

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

Topic: Comments on Revised Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers

Dear Dr. Pasha,

This letter comprises the comments of the Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE), collectively referred to herein as the California Investor-Owned Utilities (CA IOUs), in response to the California Energy Commission's (CEC) Revised Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers (Staff Report).

The CA IOUs comprise some of the largest utility companies in the nation, serving over 32 million customers in the Western U.S. We are committed to helping customers reduce energy costs and consumption, while striving to meet their evolving needs and expectations. Therefore, we advocate for standards that accurately reflect the climate and conditions of our respective service areas.

We respectfully submit the following comments to the California Energy Commission:

1. **The CA IOUs support cost-effective standards to reduce landscape water use.**

The CEC's revision of the proposal and engagement with stakeholders demonstrate a strong commitment to incorporating prior comments and detailed feedback. The CEC's updates and its convening of a stakeholder workgroup further reflect responsiveness to public input. The CA IOUs support the CEC's effort to establish standards for landscape irrigation controllers, which present a meaningful opportunity to reduce outdoor water consumption and achieve significant water savings.

Alignment with the U.S. Environmental Protection Agency's (EPA) WaterSense® specifications for weather-based and soil moisture-based controllers further strengthens the proposal. Leveraging widely vetted specifications and test procedures reduces market burden and ensures that a broad range of compliant products are readily available that meet key proposed requirements.

Because this would be a new standard for a previously unregulated product category—one that depends on proper installation, programming, and ongoing operation to deliver water savings—there is an opportunity for education and market support to maximize the standard's benefits. Educational

opportunities to ensure effective implementation include support for manufacturers of regulated products to clarify differences between the proposed standards and WaterSense® specifications, along with workforce and consumer education on enabling and maintaining weather- or soil moisture-based controls, especially where a separately sold add-on or plug-in product is required. These actions would improve compliance and help ensure that the standard's estimated benefits are fully realized.

2. **The CA IOUs support clarifying the definition of landscape irrigation controllers to focus on landscape irrigation applications.**

The CA IOUs support the CEC's intent to focus on landscape irrigation controllers for this first rulemaking regulating the product. The revised Staff Report clarifies that the term "landscape irrigation controller" does not include agricultural and golf course irrigation controllers. Products intended for use in purely agricultural applications or on golf courses differ from those typically used in residential and most commercial landscape applications, and the proposed test procedures for landscape irrigation controllers are not well-suited for these applications.

Technical standards and existing specifications further support this distinction. For example, ANSI/ASABE S627.1 (2022), the proposed test procedure for Weather-Based Landscape Irrigation Control Systems, states that the standard is "not intended for testing control systems used in agricultural settings,"[1] and the WaterSense® specifications for weather- and soil moisture-based controllers do not apply to agricultural irrigation systems.[2,3] The CA IOUs recommend that the CEC explore the water conservation potential of agricultural and golf irrigation control systems in a later, dedicated proceeding that includes stakeholders specific to these industries and focuses on these products' unique characteristics.

3. **The CA IOUs support packaging requirements for landscape irrigation controllers that maintain consumer choice and avoid unnecessary consumer costs.**

The CA IOUs support the provisions in the revised proposal that allow add-on and plug-in modules enabling weather- or soil moisture-based control to be sold separately. Under the draft proposed regulatory language, landscape irrigation controllers must include weather- or soil moisture-based control capabilities. The proposal allows these capabilities to be integrated into a controller or achieved through a base controller paired with a separately sold add-on or plug-in module that enables weather- or soil moisture-based control. Ideally, add-on and plug-in modules that provide weather- or soil moisture-based control would be included with base controllers at the time of purchase to ensure that purchasers have a fully capable product. However, as noted in the Staff Report, industry workgroup members "believed that requiring irrigation controllers to be sold with their compatible add-on or plug-in devices would have adverse economic and environmental impacts" and stated that "this requirement would cause significant cost impacts to manufacturers, distributers and retailers for packaging, shipping, warehouse, and labor."[4] Furthermore, most weather-based landscape irrigation controllers currently

[1] ANSI/ASABE S627.1-2022, *Weather-Based Landscape Irrigation Control Systems*, Section 1.4.
[2] U.S. EPA, *WaterSense® Specification for Weather-Based Irrigation Controllers Version 1.1*, September 2, 2021, p. 1, https://www.epa.gov/system/files/documents/2021-09/ws-outdoor-product-specification-wbic-revised-v1.1.pdf.
[3] U.S. EPA, *WaterSense® Specification for Soil Moisture-Based Irrigation Controllers Version 1.0*, February 2021, p. 1, https://www.epa.gov/sites/default/files/2021-02/documents/watersense_specification_for_soil_moisture-based_irrigation_controllers.pdf.
[4] Soheila Pasha, "Revised Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers," California Energy Commission, March 2026, p. 27, https://efiling.energy.ca.gov/GetDocument.aspx?tn=268960.

sold have integrated capabilities; for example, of the 464 weather-based irrigation controllers on the WaterSense® certified products list at the time of writing, 428 products include integrated weather-based control features.

Flexibility for add-on and plug-in modules to be sold separately simplifies the regulation for manufacturers by clarifying how both integrated and modular products can meet the standard, supports consumer choice, and reduces unnecessary costs. Nonetheless, this approach may create a loophole in which base controllers are installed without weather- or soil moisture-based add-ons required for water-saving operation, resulting in compliance risks. To support effective implementation, we recommend workforce and consumer education focused on proper programming and activation of weather- or soil moisture-based operation and the benefits of these features. We also suggest monitoring the market after the standard takes effect to assess whether there is increased adoption of non-compliant base controllers that are not paired with required components. If so, these products could be targeted in future regulatory actions.

4. The CA IOUs recommend refinements to the Staff Report analysis.

The CEC's staff analysis of the potential standard for landscape irrigation controllers shows that it is highly cost-effective, even with conservative assumptions about water savings. The analysis considers only savings from the more commonly used weather-based irrigation controllers, which yield lower estimated savings than soil moisture-based products. Additional analyses on water savings, energy impacts, and non-residential sector savings would strengthen the proposal, including the following:

- **Soil moisture-based controllers.** The revised Staff Report does not quantify potential costs and water savings specifically attributable to soil moisture-based controllers, potentially underestimating the total water savings if these products gain market share. The CEC could quantify the anticipated market share, costs, and benefits of soil moisture-based controllers relative to weather-based irrigation controllers and incorporate these results into the analysis to demonstrate the cost-effectiveness of soil moisture-based landscape irrigation controllers.

- **Updated studies on landscape irrigation controllers.** For all controller types, the Staff Report cites a 2014 study[5] for water savings estimates. As noted in our 2024 comments,[6] we recommend that the CEC bolster the water-savings analysis by incorporating more recent data from studies of landscape irrigation controllers. Additional studies for the CEC to consider are listed in Appendix B of those comments.

- **Standby power consumption.** The power draw of irrigation controllers varies based on several factors, including the type of power supply, the presence of wired versus wireless sensors, whether the controller must connect to external networks for information, how that information is provided to the controller, and how frequently it communicates with sensors and the Internet. Controllers that rely on weather- or soil moisture-based control often experience periodic spikes in power consumption that fluctuate with network activity or sensor pings. Assuming a 0.2 watt (W) increase in standby power draw may underestimate the additional

[5] Alison Williams, Heidi Fuchs, and Camilla Dunham Whitehead. *Estimates of Savings Achievable From Irrigation Controllers*. Lawrence Berkeley National Laboratory, April 1, 2014, https://eta-publications.lbl.gov/sites/default/files/lbnl-6604e.pdf.
[6] "Comments on Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers," California Investor-Owned Utilities, February 7, 2024, https://efiling.energy.ca.gov/GetDocument.aspx?tn=254373.

standby power required for these advanced capabilities. In practice, the incremental standby power draw of weather- or soil moisture-based irrigation controllers typically ranges from 0.5 to 3 Watts: controllers that access weather data via the Internet tend to fall at the lower end of this range, while those that use wired sensors to collect weather or soil moisture data generally consume more. Refining the energy-savings analysis could yield more accurate information on the energy impacts of these products, although we do not anticipate this refinement will affect the standard's overall cost-effectiveness or feasibility. To further address standby power draw more effectively, we support the Staff Report's suggestion for irrigation controllers to participate in the CEC's "Voluntary Performance Framework," which focuses on voluntary reductions in standby power use.[7]

- **Commercial buildings savings.** The revised Staff Report assumes that an insignificant number of landscaped commercial buildings would contribute to its water-savings estimate, but the draft regulation includes central irrigation control systems typically used in large, non-residential landscapes such as commercial office parks and schools. These landscapes may account for notable additional water savings not considered in the Staff Report. Updating the water-savings analysis to account for water used and saved in commercial and institutional landscapes would better align it with the regulation's scope and underlying savings assumptions and more accurately reflect the benefits of this potential standard.

5. The CA IOUs recommend clarifications to the draft Proposed Regulatory Language.

The revised Staff Report's proposed regulatory language does not include a section defining the scope of the regulation, and we recommend adding this section for clarity and enforceability.

We also recommend clarifications to the definition of "add-on device or plug-in device." The revised Staff Report defines "add-on" or "plug-in" devices differently from the definitions in the WaterSense® specifications that form the basis for the proposed standards. This definition should reflect the fact that some add-on or plug-in devices—such as those used for soil moisture-based control—require an interface device to communicate or translate sensor signals to the base controller, while weather-based control sensors may be wired directly to a base controller without a separate interface device.[8] In alignment with the WaterSense® specifications, the definition could be clarified to state that add-on or plug-in devices may either directly provide data as a basis for controlling the irrigation schedule or include an interface device to translate sensor information to the controller, but in both configurations the devices provide the control features enabling weather-based or soil moisture-based control.

[7] Soheila Pasha, "Revised Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers," California Energy Commission, March 2026, p. 46, https://efiling.energy.ca.gov/GetDocument.aspx?tn=268960.

[8] An example is the Hunter Mini Weather Station: https://www.hunterirrigation.com/sites/default/files/IC_MWS_dom.pdf.

The CA IOUs appreciate the opportunity to provide these comments on the Revised Staff Analysis of Proposed Efficiency Standards for Landscape Irrigation Controllers. We thank the California Energy Commission for its consideration and look forward to the next steps in the process.

Sincerely,

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Scott Higa
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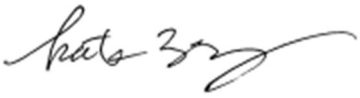

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