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December 22, 2021

Mr. James Kwon
ENERGY STAR for Consumer Electronics
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Topic: Final Draft Version 9 ENERGY STAR[®] Television Specification

Dear Mr. Kwon:

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) in response to the United States (U.S.) Environmental Protection Agency (EPA) Final Draft Version 9 ENERGY STAR[®] Television Specification (Final Draft TV Specification).

The signatories of this letter, collectively referred to herein as the California Investor-Owned Utilities (CA IOUs), represent some of the largest utility companies in the Western U.S., serving over 32 million customers. As energy companies, we understand the potential of appliance efficiency standards to cut costs and reduce consumption while maintaining or increasing consumer utility of products. We have a responsibility to our customers to advocate for standards that accurately reflect the climate and conditions of our respective service areas, so as to maximize these positive effects.

We appreciate the opportunity to provide the following comments about this Final Draft TV Specification. We applaud and support EPA's effort for revising the existing TV specification, with the goal to make the updated specification more representative of average consumer use of the latest television technologies.

1. The CA IOUs share new consumer TV usage data in support of using a weighted average for the calculation of on-mode power and on-mode power limit to improve the representativeness of the Final Draft TV Specification.

In our comment letter¹ in response to EPA's Draft 2 TV Specification, we recommended that EPA consider using a weighted average to calculate the average on-mode power and average limit of on-mode power to make the on-mode power estimation more representative of real-world use.

The CA IOUs conducted a market survey from April to July of 2021 to understand users' TV viewing behavior and user settings. The survey interviewed 100 California residents who purchased one or more TVs, 50-inches or larger after January 2018.

¹ [CA IOU Comments on Energy STAR Televisions Version 9.0 Draft 2](#)

The survey result, shown in Figure 1, articulate that 26 percent of TV operating hours were in standard Preset Picture Setting (PPS), while 58 percent of TV operating hours (excluding hours in Low Power and Autopower Save) were in non-default PPS, which usually have brighter displays.

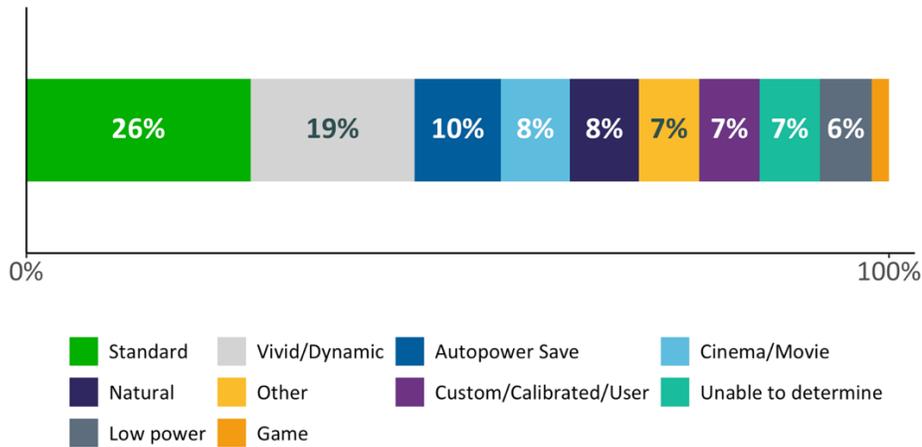


Figure 1. Percentage of TV Operating Hours by Preset Picture Setting (PPS)

Source: CA IOU TV Survey Analysis Results Memo, dated November 29, 2021. Full memo included with the submission of this comment letter.

These survey results support using values of $N_{Default}$, $N_{Brightest}$ of 25 percent and 60 percent, respectively. We suggest that the remaining operating hours (15 percent) be allocated to N_{HDR} based on the high percentages of awareness of (93 percent) and preference for (81 percent) HDR content of TV consumers. With this proposed approach, Equation 4 and Equation 5 would be as follows:

Equation 4-proposed: Average On-Mode Power, $P_{OA_Average}$

$$P_{OA_Average} = 25\% \times P_{OA_Default} + 60\% \times P_{OA_Brightest} + 15\% \times P_{HDR}$$

Equation 5-proposed: Average Limit of On-Mode Power, $P_{OA_Average_Limit}$

$$P_{OA_Average_Limit} = 25\% \times P_{OA_Default_Limit} + 60\% \times P_{OA_Brightest_Limit} + 15\% \times P_{HDR_Limit}$$

We recommend EPA consider substituting Equations 4 and 5 currently included in the Final Draft TV Specification with Equations 4- and 5-proposed in the Final Version 9.0 TV Specification.

2. The CA IOUs support EPA’s proposal to align the Final Draft TV Specification with the completed CTA-2037-C. We respectfully request that several typographical errors in the specified value of luminance conditions be corrected.

We respectfully request correction of the following typographical errors in the Final Draft TV Specification:

- Line 224, Section 3.3.1: “150 lux” should be “140 lux”
- Line 266/271/273 Equation 1: DL_{150} should be DL_{140} ; DL_5 should be DL_4
- Line 275/280/282, Equation 2: $P_{OA_{150}}$ should be $P_{OA_{140}}$; “150 lux” should be “140 lux”

3. The CA IOUs applaud EPA’s decision to update the definition of “High Contrast Ratio (HCR) display” to reduce the likelihood of misidentification of these products.

We appreciate EPA’s decision to update the definition of “HCR display” to “A display where pixels can be controlled on an individual basis and emit no light when displaying a pure black color.” As we described in earlier comments², we agree that the proposed definition captures the key elements of an HCR display and will reduce the likelihood of misidentification of test units as HCR displays by certification bodies.

In conclusion, we would like to reiterate our support of EPA’s proposals outlined in the Final Draft TV Specification and thank EPA for the opportunity to be involved in this process.

Sincerely,



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² [CA IOU Comments on Energy STAR Televisions Version 9.0 LTP Draft](#)