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*Comment Received From: Jonathan Benson  
Submitted On: 4/24/2026  
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## **Concerns about the combined requirements**

Please see uploaded document.

Kind Regards,

Jonathan Benson

*Additional submitted attachment is included below.*

**Jonathan Benson**

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April 24, 2026

California Energy Commission

Dockets Office

715 P Street

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**Re: Docket 26-TIRE-01 — Comments on California’s Proposed Replacement Tire Efficiency Program (TN 269612, April 2026 Staff Report)**

Dear Commissioners and Staff,

I submit these comments as a tire testing professional and founder of TyreReviews.com, with direct experience measuring rolling resistance and wet grip. I support the objectives of AB 844, but I want to flag three technical gaps in the April 2026 staff report that I believe warrant additional analysis before the regulations are finalized.

**1. The OE-versus-replacement benchmark does not account for tread depth**

The report’s 7.1 N/kN Phase 2 base tire target is derived from the average RRC of OE tires in the Smithers dataset. But OE tires are not warranted for the long mileages expected of aftermarket replacement tires, and they are frequently specified with lower starting tread depth. Because rolling resistance decreases with tread depth — a well-established hysteretic effect — an OE tire will test to a lower RRC than an otherwise identical replacement tire simply by virtue of having less rubber. A replacement tire engineered for 60,000–80,000 miles of usable life carries a structural RRC penalty that an OE tire engineered for shorter service does not.

If OE tires in the Smithers dataset have systematically lower starting tread depth, the 7.1 benchmark embeds that difference into the standard, pushing manufacturers to reduce aftermarket tread depth, reduce tire life, or both — outcomes that would conflict with the statutory requirements in Public Resources Code § 25773(a)(1) that efficiency standards not adversely affect tire life or state efforts to manage scrap tires.

**Requested action**

Publish the average starting tread depth for OE versus replacement tires in the Smithers dataset, and a tread-depth-normalized comparison of their RRC values. Adjust the Phase 2 targets if a meaningful gap exists at equivalent tread depth.

**2. Population correlation does not demonstrate the absence of a within-design RRC/wet-grip tradeoff**

The report concludes that safety will not be compromised, relying on a low  $R^2$  (0.07) for RRC versus wet grip across the Smithers test population and the fact that 95%+ of tested tires already clear the 1.0 wet grip floor. These are cross-sectional observations about tires that already exist; they do not answer the relevant engineering question, which is: when a specific

tire currently at RRC 8.5 and wet grip 1.15 is redesigned to RRC 7.1, what happens to its wet grip?

A design team cannot move freely along the RRC axis of that scatterplot — they can only alter the specific design in front of them, and within a given design the RRC/wet-grip tradeoff is real and well-documented. The report implicitly concedes this by carving out a lenient RRC threshold for ultra-high-performance tires; the underlying physics does not disappear below that threshold.

USTMA/TRAC's submission to the 20-TIRE-01 docket indicated that 99–100% of the 8,500 tires in their market database would fail a 7.0 N/kN standard — essentially the current Phase 2 target. If nearly every tire requires redesign, the current population scatterplot is not a forecast of the post-regulation market. The wet grip distribution could compress toward the 1.0 floor while remaining nominally compliant, producing a measurable real-world safety regression.

### **Requested action**

Publish from the Smithers dataset:

1. How many tires simultaneously meet both the Phase 2 RRC target (by category) and the 1.0 wet grip floor today;
2. The wet grip distribution of that compliant subset versus the full population; and
3. A sensitivity analysis modeling the expected post-regulation wet grip distribution, rather than assuming the pre-regulation distribution carries forward.

### **3. The environmental analysis does not account for increased tire production, and EU harmonization makes shorter-life tires a likely outcome**

The report's environmental case rests on fuel savings and explicitly assumes that tire life will not fall. If that assumption fails, the net GHG conclusion is at risk — and the regulation as drafted creates a direct mechanism by which it is likely to fail.

Tire manufacturing is materially carbon-intensive: rubber production, carbon black, silica, steel belting, and energy-intensive vulcanization all carry meaningful embodied emissions. Additional tires also mean additional scrap tire generation, transportation, and end-of-life management. The report quantifies fuel-side benefits in detail but does not model any of this on the cost side.

The specific mechanism by which tire life is likely to fall is visible in the rulemaking itself. The report states (Chapter 1) that the switch to EU-correlated RRC values was “requested by a major tire manufacturer” specifically to “simplify compliance by manufacturers operating in both the EU and California.” The regulation has, in other words, been explicitly structured to make a shared EU/California product line the most economical compliance pathway.

EU-market tires, however, are engineered against a label that grades rolling resistance, wet grip, and noise — but not longevity. There is no EU analogue to UTQG treadwear. The empirical consequence is material. My own analysis of 590 independent European tire tests covering 7,704 individual tire results (TyreReviews.com, 2026) finds that even EU premium tires average just 44,419 km of service life — approximately 27,600 miles, or less than half of typical US aftermarket warranty expectations of 60,000–80,000 miles. A shift toward EU-specification products in the California market would therefore mean approximately a doubling of tire replacement frequency for the segments affected.

The mismatch is actually greater than even those figures suggest. In that same dataset, EU premium tires average a rolling resistance of 7.9 kg/t — still above the proposed Phase 2 base

tire MPS of 7.1 N/kN. Meeting the California standard will therefore require EU manufacturers to push their designs further toward low rolling resistance than current EU label targets demand. The realistic California product is not today's EU premium tire; it is a future EU tire with additional compromises on the wear side.

The combination of higher replacement frequency and the embodied emissions of tire manufacture could offset a significant fraction of the claimed 2.0 MMTCO<sub>2</sub> e annual benefit. Without a full lifecycle analysis that accounts for this mechanism, the net environmental case is not established.

### **Requested action**

The forthcoming Environmental Impact Report should include a full lifecycle analysis covering the embodied emissions of tire manufacture, distribution, and end-of-life management. It should explicitly model the scenario in which the California replacement market shifts toward EU-specification products, using empirical EU service life data as a baseline (approximately 44,000 km for premium products, versus the 96,000–128,000 km implied by current US aftermarket warranties). Sensitivities should include 25%, 50%, and 75% reductions in average tread life so the net GHG impact can be evaluated against a realistic range of industry responses rather than a single optimistic assumption.

### **Conclusion**

These are not arguments against replacement tire efficiency standards in principle. They are arguments for publishing the tread-depth, joint-distribution, and lifecycle data before finalizing numeric targets that will drive redesign of essentially the entire California replacement tire market. All three analyses rely on data the CEC already possesses or can readily commission, and addressing them would substantially strengthen the technical foundation of the rulemaking while reducing the risk of unintended regressions that would trigger the statutory guardrails in Public Resources Code § 25773(a)(1).

I appreciate the opportunity to comment and am available to discuss any of these points further.

Respectfully submitted,

Jonathan Benson

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