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Additional submitted attachment is included below.

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Re: Docket No. 26-TIRE-01 – Proposed Replacement Tire Efficiency Program

Dear Commissioners,

Continental Tire appreciates the opportunity to provide comments on the proposed Replacement Tire Efficiency Program. We support the California Energy Commission's objective of improving energy efficiency and reducing greenhouse gas emissions from the light-duty fleet. However, after detailed review, we have identified a series of interrelated technical, regulatory, and market-based concerns that raise significant questions regarding feasibility, safety, enforceability, and overall effectiveness.

These concerns are not isolated—they reflect a structural mismatch between the proposed regulatory framework and the underlying physical realities of tire performance, as well as real-world market behavior. Without meaningful revision, there is a substantial risk that the regulation will fail to achieve its intended outcomes and, in several key respects, could produce severe adverse effects that undermine both environmental and safety goals.

I. Executive Summary

At its core, the proposed regulation is based on the assumption that the tire market can achieve a high level of compliance, estimated at approximately 90 percent, while simultaneously achieving significant reductions in rolling resistance. However, this assumption is not supported by any defined mechanism for measurement, verification, or enforcement.

The regulation imposes performance requirements that exceed current Original Equipment (OE) benchmarks, particularly in Phase 2, and does so within a compressed implementation timeline that is incompatible with tire development cycles. As a result, the regulation is unlikely to drive meaningful innovation within the proposed timeframe. Instead, it is more likely to result in product removal, reduced availability, and market distortion.

These structural issues are compounded by incentive misalignment. Manufacturers who invest to meet compliance requirements will incur higher costs, while those that do not comply with performance requirements will retain a cost advantage and little fear of enforcement. Without advanced enforcement mechanisms, this dynamic creates a strong incentive toward noncompliance,

undermining the effectiveness of the regulation and potentially leading to a net degradation of market performance.

As high performing well rounded products just outside of the rolling resistance performance window are eliminated from the market, the lack of enforcement oversight will lead to an influx on lower performing product to fill this vacuum. The self-certification reporting structure allows companies bringing in underperforming product with little to no fear of market surveillance. This will lead to market population that will have a higher cumulative rolling resistance performance and increased energy usage than before the regulation was put into place. What is worse is that the California Energy Commission has no feasible mechanism to detect these market distortions and no process in place to even quantify the market to ensure the regulation is properly running without manipulation.

At the same time, there is a significant risk that the regulation could negatively impact safety and durability. Tire performance is governed by fundamental tradeoffs between rolling resistance, traction, and wear. Attempting to aggressively reduce rolling resistance beyond current technological limits introduces measurable risk to wet braking performance and tire longevity. These risks are further amplified in electric vehicles, where increased vehicle weight and torque already accelerate tire wear.

In combination, these factors create a scenario in which the regulation will not deliver the intended environmental benefit. Instead, it may increase tire turnover, generating additional waste, and shift purchasing behavior outside California, all while reducing safety margins in critical driving conditions.

II. Performance Requirements and Technical Feasibility

A central technical issue in the proposed regulation is the implicit assumption that rolling resistance can be reduced independently of other key tire performance characteristics. This assumption is inconsistent with the established scientific understanding of tire mechanics and material behavior.

Tire performance is governed by a set of interdependent properties—commonly referred to as the “performance triangle” or “magic triangle”—which consists of:

- Rolling resistance (fuel efficiency)
- Traction (particularly wet grip and braking performance)
- Wear resistance (durability and tread life)

Across both academic research and industrial practice, these three characteristics are understood to be intrinsically linked and physically constrained, such that improvements in one dimension necessarily influence performance in the others.

A. Fundamental Interdependence of Performance Parameters

Peer-reviewed research confirms that rolling resistance, wear resistance, and grip are not independent variables, but instead are jointly governed by shared physical drivers, including material composition, frictional behavior, and operating conditions. [ijrpr.com]

This interdependence arises because all three properties are controlled by the same underlying mechanisms:

- Viscoelastic properties of rubber
- Contact mechanics between tire and road surface
- Energy dissipation during deformation
- Friction and abrasion processes

As a result:
Any attempt to optimize one of these performance parameters necessarily alters the others, often in opposing directions.

This constraint is not a limitation of current technology alone—it reflects a fundamental coupling of material and mechanical behavior.

B. Tradeoff Between Rolling Resistance and Traction

The relationship between rolling resistance and traction is not only theoretical but has been demonstrated through experimental and simulation research.

Studies have shown that improving grip performance requires altering deformation behavior within the tread—specifically increasing tensile deformation in the contact patch. However, these same changes inherently increase rolling resistance due to higher energy dissipation. [researchgate.net]

This establishes a direct engineering constraint:

Increasing traction requires increasing deformation and energy loss, which directly increases rolling resistance.

Conversely:
Reducing rolling resistance requires minimizing deformation and hysteresis, which reduces available traction.

C. Tradeoff Between Wear Resistance and Rolling Resistance

The relationship between wear resistance and rolling resistance is similarly governed by the material response of rubber compounds.

Wear resistance improves when the tire material is more robust and able to withstand repeated frictional interaction with the road surface. However, enhancing durability typically involves:

- Increasing material stiffness or resilience
- Modifying compound composition to resist abrasion

At the same time, fundamental studies have shown that increasing hysteresis can improve durability (longer wear life), but this increase in hysteresis also leads to higher rolling resistance. [rct.kglmeridian.com]

This implies:

- Improved durability → often higher hysteresis → higher rolling resistance
- Reduced rolling resistance → lower hysteresis → potentially reduced durability

Additionally, wear itself is driven by frictional forces and energy dissipation at the surface. Since these same processes contribute to traction, there is a further interaction whereby:
Improving wear resistance can reduce the energy dissipation mechanisms that contribute to grip, depending on compound formulation.

D. The “Magic Triangle” Constraint

These interactions are formally recognized in tire science as the “magic triangle”, representing the inherent tradeoffs between:

- Low rolling resistance (fuel efficiency)

- High traction (safety)
- High wear resistance (durability)

Scientific and industrial literature consistently emphasizes that:
It is not possible to simultaneously maximize all three properties without compromise.
Modern research continues to attempt to “expand” or partially overcome this triangle through advanced materials, but even state-of-the-art studies acknowledge that simultaneous optimization remains fundamentally constrained. [mdpi.com]

Industry analyses reinforce this conclusion, noting that optimizing one of these characteristics typically requires sacrificing performance in at least one of the others. [tirereview.com]

Conclusion

The relationship between rolling resistance, wear, and traction is not an engineering preference but a scientifically established constraint governed by viscoelastic material behavior and tire-road interaction physics.

These parameters are inseparably linked through mechanisms such as hysteresis, deformation, and friction.

As a result:
Improvements in rolling resistance cannot be achieved beyond certain limits without measurable and unavoidable impacts on traction and/or wear.

Any regulatory framework that does not explicitly account for this interdependence risks imposing requirements that are technically infeasible and potentially counterproductive in terms of safety and environmental outcomes.

These independently verifiable tradeoffs are not an inconvenience that can be overlooked to implement the desired regulatory objectives, but a requirement to be upheld to ensure that the rolling resistance limits being proposed do not provide an permanent adverse effect on the California tire market in regards to tire wear and the need to replacement tires more often, but more importantly the safety of the vehicles on the road.

III. Integrated Performance Requirements – Rolling Resistance, Traction, and Wear

A fundamental limitation of the proposed regulation is its reliance on **rolling resistance as a single performance metric**, without corresponding individual requirements for **traction and wear performance**. This approach does not reflect the established engineering reality of tire performance and introduces a structural risk that improvements in energy efficiency may be achieved at the expense of safety and durability.

As discussed previously, tire performance is governed by the interdependent relationship between rolling resistance, traction, and wear. These properties are not independent design variables; they are controlled by shared physical mechanisms including hysteresis, deformation behavior, and tire-road friction. As a result:

Any regulatory framework that seeks to improve rolling resistance must also verify that traction and wear performance are not adversely affected.

The current proposal does not provide a mechanism to ensure this outcome.

A. Limitations of Single-Metric Compliance

By establishing rolling resistance as the sole performance requirement, the regulation creates a compliance structure in which manufacturers are incentivized to optimize for a single parameter without demonstrating preservation of overall tire performance.

Without formal requirements for traction and wear:

- There is no assurance that products compliant with rolling resistance thresholds maintain equivalent safety performance behind the minimal traction standard, which will pull all products in the market to this level of traction and substantially decrease the overall safety performance of tires currently in the California market
- There is no mechanism to detect degradation in durability or service life
- There is no visibility into tradeoffs introduced through compliance-driven design changes

Accordingly:
It is not sufficient to assume that rolling resistance improvements will not affect traction and wear—this must be explicitly demonstrated.

B. Requirement for Demonstrated Performance at the SKU Level

To ensure that tire performance is preserved, compliance must be based not only on rolling resistance values, but on **demonstrated performance across all critical parameters for each tire product offered for sale**.

Specifically:
Compliance with this regulation should require that traction and wear performance be measured, reported, and maintained on a per-SKU basis for all tires sold in California.

This approach ensures that:

- Performance tradeoffs are identified and managed
- Products are evaluated in their actual market configurations
- Safety and durability are preserved alongside efficiency improvements

Absent such requirements, compliance becomes a **single-variable exercise** that does not reflect real-world performance outcomes.

C. Proposed Data Reporting and Labeling Requirements
To implement this framework, Continental recommends that the regulation incorporate **mandatory reporting and labeling requirements for traction and wear**, aligned with those established for rolling resistance.

1. Standardized Performance Metrics
Each tire SKU should be required to report:

- Rolling resistance value (as proposed)
- Traction performance (e.g., wet grip metric or equivalent)
- Wear performance (e.g., projected tread life)

2. Product-Level Transparency

Performance values should:

- Be associated directly with the tire SKU
- Be available for regulatory review and market transparency

- Provide a clear basis for verifying compliance and monitoring performance trends

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D. Regulatory Necessity for Multi-Parameter Verification

A requirement to report traction and wear alongside rolling resistance is not merely a procedural enhancement—it is necessary to ensure that the regulation fulfills its intended legislative requirement.

Energy efficiency standards are required to:
- Maintain product performance
- Avoid degradation of safety
- Ensure that consumer utility is preserved

Because traction is a primary determinant of **vehicle safety**, and wear directly affects **product lifespan and environmental impact**, these parameters must be explicitly considered.

Without integrating these factors:
The regulation cannot demonstrate that it preserves safety and durability while improving efficiency.

E. Implications for Regulatory Validity and Effectiveness

If compliance is determined solely on rolling resistance without verification of traction and wear performance:
- The regulation may allow the introduction of products with reduced safety margins
- Durability reductions may lead to increased replacement frequency and higher material consumption
- Market outcomes may diverge from intended environmental objectives

This creates a condition in which:
The regulation may meet its efficiency objective in isolation, while failing to meet the broader requirement to maintain safe and functional products in the marketplace.

F. Recommendation

To ensure that the regulation is technically sound and aligned with its legislative intent, Continental recommends that the Commission:
1. **Adopt a Multi-Parameter Compliance Framework**
    - Require rolling resistance, traction, and wear to be evaluated together
2. **Establish Mandatory Reporting Requirements**
    - Require performance data for all three parameters at the SKU level
3. **Implement Transparent Labeling or Disclosure**
    - Ensure that performance characteristics are documented and accessible
4. **Define Safeguards Against Performance Degradation**
    - Establish minimum acceptable thresholds or performance retention criteria

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Conclusion

The current proposal's exclusive focus on rolling resistance does not adequately account for the interdependent nature of tire performance.

Rolling resistance, traction, and wear are inseparably linked, and improvements in one parameter cannot be assumed to occur without impact on the others.

Therefore:
It is not sufficient to assert that rolling resistance improvements do not compromise traction or wear—this must be demonstrated through measurable, product-level performance data.
By incorporating traction and wear into the regulatory framework through mandatory reporting and verification, the Commission can ensure that efficiency gains are achieved **without compromising safety, durability, or overall market performance** and therefore would not have fulfilled the legislative requirement of AB844.

IV. Exemptions and Market Behavior (15,000 annual sale exclusion)

A central structural concern within the proposed regulation is the inclusion of the 15,000-unit annual sales exemption, which, as currently designed, materially undermines both the effectiveness and integrity of the broader regulatory framework. It has been estimated that 90-95% of the entire tire market by SKU are below the 15,000 tire per year threshold. This will allow whole companies to sell products in the California market without being required to make a single compliant tire solely based on this exclusion.

While such thresholds are sometimes intended to accommodate niche or limited-production products, the structure of the tire market renders this particular exemption far more consequential than its design may suggest. Rather than limiting administrative burden for truly low-impact categories, the exemption interacts with the underlying market structure in a way that significantly reduces regulatory coverage and introduces unintended behavioral incentives.

A. Impact on Market Coverage and Regulatory Effectiveness

The replacement tire market is inherently fragmented across a wide range of sizes, fitments, and specialized applications. This fragmentation results in a large proportion of individual products—or SKUs—having relatively low sales volumes. Under the proposed 15,000-unit threshold, a substantial share of these products would fall outside the scope of regulation.
In practical terms, this creates a situation in which only a narrow subset of high-volume products is subject to compliance, while a majority of the market remains unaffected. The consequence is not merely reduced coverage, but a fundamental limitation on the regulation's ability to influence aggregate market performance.

The intended objective of improving average fleet-level rolling resistance depends on broad participation across product categories. However, where a significant portion of the market is exempt, the regulation cannot produce a meaningful shift in overall performance.

Put differently:
When a large share of products is excluded from compliance, the regulatory framework becomes structurally incapable of delivering the systemic change it seeks to achieve.

B. Competitive Imbalance and Unequal Regulatory Burden

The exemption also creates a pronounced imbalance in regulatory burden across market participants.

Manufacturers with high-volume products—often core categories serving the majority of consumers—would be required to bear the full cost of compliance, including engineering redesign,

testing, and certification. At the same time, manufacturers with lower-volume product lines would face limited or no compliance obligations.

This asymmetry has several implications:

- Compliant manufacturers incur higher costs that must be absorbed or passed on to consumers
- Non-compliant or exempt products retain a cost advantage
- Market competition becomes skewed in favor of exempt companies

Over time, this dynamic will lead toward exempt segments, reducing the overall effectiveness of the regulation while introducing distortions in market competition.

C. Interaction with Enforcement Limitations

The challenges associated with the 15,000-unit exemption are further amplified by the absence of a defined enforcement and verification framework elsewhere in the regulation.
Because the proposal does not specify how sales volumes will be tracked, verified, or audited, there is no reliable mechanism to determine whether a given product legitimately qualifies for exemption. The classification of products under the threshold therefore becomes self-reported and systematically impossible to verify.

In the absence of:

- Centralized tracking of SKU-level sales volumes
- Independent verification mechanisms
- Audit procedures to validate compliance status

the exemption cannot be consistently or credibly enforced.

This creates an environment in which classification as an exempt product is difficult to verify and potentially subject to manipulation, further weakening regulatory control.

D. Anticompetitive Effects and Potential for Monopoly-Like Market Distortion

Beyond the enforcement and coverage concerns identified above, the 15,000-unit exemption introduces a significant risk of anticompetitive market distortion that could, over time, produce monopoly-like effects within the California replacement tire market. The exemption's interaction with the proposed performance standards creates a regulatory structure that systematically advantages certain market participants over others—not on the basis of product quality, innovation, or consumer value, but solely on the basis of production volume and portfolio composition.

As noted, it has been estimated that 90–95 percent of the entire tire market by SKU falls below the 15,000-unit annual threshold. This means the regulation's compliance burden is concentrated on a small number of high-volume manufacturers—typically the largest domestic and international brands—while the vast majority of products and a substantial number of market participants are effectively exempt. The result is a regulatory framework that disproportionately penalizes established, high-volume producers while allowing smaller-volume competitors, importers, and brand name owners to continue selling noncompliant products without restriction.

This dynamic has the potential to produce a monopoly-like effect in several respects. First, the regulation effectively reduces the number of compliant competitors in any given tire segment. As high-volume manufacturers are forced to remove noncompliant products from the market or invest heavily in redesigning them, the number of available options within compliant product categories narrows. Consumers seeking tires that meet the regulatory standard will have fewer choices, and the remaining compliant manufacturers will face reduced competitive pressure—a classic precondition for monopolistic pricing and reduced innovation incentives.

Second, the exemption creates deliberate incentives for portfolio restructuring. Manufacturers may be incentivized to fragment their product lines into smaller-volume SKUs to fall below the 15,000-unit

threshold, or to route products through affiliated brand name owners that individually qualify for exemption. This portfolio gaming would further erode the regulation's coverage while concentrating the compliance burden on an increasingly narrow set of participants. Over time, the manufacturers that cannot or choose not to engage in such restructuring face a growing cost disadvantage, potentially driving consolidation and further reducing competition in the California market.

Third, the combination of the 15,000-unit exemption and the absence of robust enforcement mechanisms creates a two-tier market in which compliant manufacturers bear the full economic cost of regulation—including research and development, reformulation, testing, and certification—while exempt competitors retain the ability to offer products that may be preferred by consumers on the basis of performance characteristics such as traction, wear life, or price. This unequal competitive playing field does not merely disadvantage compliant manufacturers; it actively rewards noncompliance and regulatory avoidance, creating a structural incentive for market participants to position themselves outside the regulated tier. The foreseeable result is a market increasingly dominated by either a small number of compliant high-volume producers or a proliferation of exempt, unregulated products—neither of which serves the interests of consumers or the objectives of the regulation.

The CEC Staff Report itself acknowledges that the proposed regulations apply equally to California-based businesses and those selling into the California market from out of state and asserts that the regulations are unlikely to create business advantages or disadvantages. However, this analysis does not account for the distortive effect of the 15,000-unit exemption, which fundamentally undermines the premise of equal treatment. When a regulation exempts the majority of products by SKU from compliance while imposing stringent requirements on a minority, the regulatory burden is anything but equal—and the resulting competitive landscape is anything but neutral.

Continental Tire submits that the Commission must evaluate the anticompetitive implications of the 15,000-unit exemption before adoption, including the risk that the exemption may facilitate market concentration, create barriers to entry for compliant manufacturers in exempt-dominated segments, and ultimately produce a less competitive California tire market that harms consumers through reduced choice, higher prices, and diminished innovation. A regulation designed to improve environmental outcomes should not simultaneously undermine the competitive market dynamics that drive product improvement and consumer welfare.

E. Recommendation

To preserve the integrity and effectiveness of the regulation, Continental Tire recommends that the 15,000-unit exemption be eliminated or fundamentally restructured.

If the Commission determines that some form of exemption is necessary, it should be:

- Narrowly tailored to clearly defined specialty categories
- Supported by transparent, objectively verifiable criteria
- Accompanied by mechanisms for monitoring, reporting, and audit

Any exemption must be designed to avoid incentivizing portfolio strategies that circumvent the intent of the regulation.

Conclusion

In its current form, the 15,000-unit exemption represents a significant structural weakness within the proposed regulatory framework. Rather than facilitating practical implementation, it materially reduces regulatory coverage, distorts market behavior, and undermines enforceability.

Without revision, the exemption will limit the regulation's ability to deliver meaningful environmental or performance improvements and should therefore be reconsidered as part of a comprehensive restructuring of the program.

V. **Original Equipment (OE) Alignment and Autonomous Fleet Considerations**

A critical unintended consequence of the proposed regulation is the interaction between replacement tire requirements and **Original Equipment (OE) tire design, validation, and lifecycle use**. As currently structured, the regulation would prohibit the sale of replacement tires that do not meet prescribed rolling resistance thresholds—even when those tires are identical to the OE tires originally specified, validated, and approved for a given vehicle platform. This creates a fundamental disconnect between **vehicle-level engineering and component-level regulation**.

A. OE Tires Are Vehicle-Specific Engineering Components

Original Equipment tires are not generic products. They are **specifically engineered, tuned, and validated for individual vehicle platforms**, often through multi-year collaboration between the vehicle manufacturer and tire supplier. This process integrates tire performance into the broader vehicle system, including:

- Braking performance and safety systems (ABS, ESC calibration)
- Ride, handling, and stability characteristics
- Load carrying and durability requirements
- Noise, vibration, and harshness (NVH) tuning
- Energy efficiency optimization at the vehicle level

These tires are selected to meet **the full set of vehicle performance requirements**, which necessarily involve tradeoffs between rolling resistance, traction, and wear. As established previously, these parameters are physically interdependent and cannot be optimized independently without affecting overall system performance.

Accordingly:

OE tires represent an integrated component of the vehicle's safety and performance envelope—not a stand-alone consumable that can be substituted solely based on rolling resistance.

B. Regulatory Implication – Restricting Replacement of OE-Specified Products

Under the proposed framework, OE tires that do not meet the new rolling resistance requirements would be prohibited from sale in the replacement market, even though:

- They were legally approved and sold as part of the original vehicle
- They were validated for safety, performance, and regulatory compliance at the vehicle level
- Consumers rely on the ability to replace worn tires with functionally equivalent products
- OE tires are developed at the exact specification of OE vehicle manufacturers to match specific standards of new vehicles

This creates a critical question:

Is the regulation intending to exclude from the replacement market the very tires that were specifically engineered, validated, and approved for a consumer's vehicle?

If so, the implications are significant:

- Consumers may be unable to replace tires with OE-equivalent products
- Consumers may find it impossible to find tires at all to replace their existing vehicle, specifically on newer vehicles with unique sizes
- Substitute tires may alter vehicle handling, braking, and safety characteristics

- Vehicle systems calibrated to OE tire performance may no longer operate as intended

This outcome introduces both **safety risk and technical inconsistency**, as the regulation would effectively override vehicle-level engineering decisions with a single-parameter constraint.

C. Impact on Emerging Autonomous and Robotaxi Fleets

These concerns are further amplified in the context of **autonomous vehicle fleets and robotaxi operations**, which represent a rapidly expanding segment of the California transportation ecosystem.

In these fleets:

- Vehicles are typically **owned, operated, and maintained by the manufacturer or fleet operator**
- Tire selection is managed as part of a **controlled system-level performance strategy**
- OEMs often require the use of **specific OE tires across the fleet**

This standardization is critical to ensuring:

- Consistent sensor calibration and vehicle dynamics behavior
- Predictable braking, traction, and control system performance
- Reliable operation of autonomous driving algorithms

Because autonomous systems depend on highly calibrated performance parameters:
Variation in tire characteristics—including substitution of non-OE tires—can introduce variability that directly affects system reliability and safety.

D. Contractual and Operational Constraints in Fleet Environments

In many cases, robotaxi fleets operate under **contractual requirements that mandate the use of OE-specified tires** throughout the life of the vehicle. These requirements are designed to:

- Maintain consistency across the fleet
- Simplify maintenance and validation processes
- Ensure compliance with safety and performance specifications defined by the manufacturer

If OE tires are excluded from the replacement market due to regulatory requirements, fleet operators may be forced to:

- Use alternative tires not validated for the vehicle
- Recalibrate systems under new and untested configurations
- Accept increased operational and safety risk

This creates a direct conflict between:

- Regulatory requirements focused on rolling resistance, and
- System-level safety and performance requirements governing autonomous vehicle operation

Continental requests that fleet and OEM controlled vehicles be exempt from these regulations to ensure safety and continuity of these autonomous vehicles. It is imperative that these vehicles perform in a proper and predictable manner throughout their use to avoid safety concerns.

E. Continental's Contractual OE Supply Obligations and the Compliance Paradox

The concerns identified above are not merely theoretical, they have direct and immediate consequences for Continental Tire's existing business operations and contractual obligations.

Continental maintains active supply contracts with vehicle manufacturers to produce replacement tires that are identical in specification, construction, and performance to the Original Equipment tires approved for specific vehicle platforms. These contracts require Continental to manufacture and supply tires that meet the precise engineering specifications validated by the OEM for that vehicle, ensuring that consumers can replace worn tires with products that preserve the vehicle's original safety, handling, and performance characteristics.

Under the proposed regulation, a tire that is fully compliant as an OE tire—having been engineered, validated, and approved at the vehicle level—may nonetheless be classified as noncompliant when sold as a replacement tire if its rolling resistance coefficient exceeds the proposed minimum performance standard. This creates a regulatory paradox in which the identical physical product is simultaneously lawful as OE and unlawful as a replacement, despite no change in the tire's design, materials, or performance characteristics. The tire's regulatory status changes not because of any deficiency in the product itself, but solely because of the commercial context in which it is sold.

For Continental, this paradox produces several concrete and immediate consequences:

(1) Breach of Contractual Obligations. Continental's existing supply agreements require the delivery of OE-specification tires for the replacement market. If the regulation prohibits the sale of these tires as replacements in California, Continental would be unable to fulfill its contractual commitments to OEMs and their dealer networks without either violating the regulation or breaching its supply contracts. This places Continental in an untenable legal position—compliance with one legal obligation necessarily results in noncompliance with another.

(2) Loss of OEM Business and Market Access. Vehicle manufacturers depend on their tire suppliers to provide replacement market availability for OE-specified products. If Continental cannot legally sell OE-identical tires as replacements in California, OEMs may redirect their supply contracts—both for OE and replacement—to competitors who are able to offer compliant alternatives or who operate under different market structures. This would result in a direct loss of business for Continental and could permanently alter established OEM-supplier relationships that have been developed over years of collaborative engineering and validation.

(3) Stranded Engineering Investment. Continental invests substantial resources in the multi-year development, testing, and validation process required to produce OE-approved tires. These investments are made with the reasonable expectation that the resulting products will be available for sale in both the OE and replacement markets throughout the vehicle platform's lifecycle. The proposed regulation would effectively strand these investments by eliminating the replacement-market revenue stream for products that were lawfully developed, approved, and sold as original equipment—without any finding that the products themselves are deficient or unsafe.

(4) Consumer Harm and Safety Degradation. When Continental is unable to supply OE-identical replacement tires to the California market, consumers who own vehicles originally equipped with those tires will be forced to select alternative products that were not engineered or validated for their specific vehicle. As detailed in Subsections A and B above, such substitutions may alter vehicle handling, braking distances, and the calibration of electronic safety systems. The regulation would thus produce the perverse outcome of forcing consumers away from the safest, most appropriate tire for their vehicle—the tire specifically designed and approved for it—in favor of a substitute selected solely on the basis of a single performance parameter.

(5) Market Distortion Favoring Non-OE Suppliers. Manufacturers like Continental that invest in the rigorous OE development, and validation process would be placed at a competitive disadvantage relative to aftermarket-only manufacturers that do not bear these costs and can design products solely to meet the rolling resistance threshold without the constraint of matching OE vehicle-level specifications. This outcome penalizes precisely the manufacturers that have invested most heavily in integrated vehicle safety and performance

and rewards those that have not—an inversion of the incentive structure that sound regulatory policy should create.

Continental respectfully submits that the Commission must address this contractual and operational conflict directly. A regulation that renders unlawful the sale of products that are identical to those lawfully installed on vehicles by their manufacturers—and that are required by contract to be available in the replacement market—creates an irrational regulatory outcome that cannot be reconciled with the statute's requirement of technical feasibility or its prohibition on adverse safety effects. Continental urges the Commission to adopt an explicit exemption for OE-identical replacement tires, ensuring that tires engineered, validated, and approved for a specific vehicle platform remain available to consumers and contractual partners throughout the vehicle's service life.

F. Recommendation – Explicit Exemption for OE Replacement and Autonomous Fleets

To address these issues and preserve alignment with vehicle-level engineering and safety requirements, Continental Tire recommends:

1. OE Replacement Exemption
- Tires originally supplied as OE for a specific vehicle platform should be permitted for replacement use
- This ensures consumers can maintain the vehicle in its **validated configuration**

2. Autonomous / Robotaxi Fleet Exemption
- Fleets operating under OEM control (including robotaxi systems) should be exempt from replacement tire restrictions
- Where tires are deployed as part of a **closed, controlled system with defined safety validation**

Such exemptions would:
- Preserve the integrity of vehicle-level engineering
- Avoid unintended safety consequences
- Align regulatory scope with real-world use cases

Conclusion

The proposed restriction on replacement tire availability creates a structural conflict between **component-level regulation and system-level engineering**.

OE tires are not interchangeable commodities—they are **integral to the performance, safety, and calibration of the vehicles for which they are designed**. Preventing their use in the replacement market would disrupt this alignment and introduce unintended risks.

These risks are particularly acute in the context of **autonomous and robotaxi fleets**, where tire performance is tightly coupled with system behavior and operational safety.

Continental respectfully requests that the Commission clarify its intent regarding OE-aligned replacement tires and incorporate explicit exemptions to ensure that regulation does not inadvertently compromise vehicle safety, system performance, or emerging mobility technologies.

VI. Light Truck (LT) Segment — Market and Safety Implications

A central issue in the proposed regulation is its impact on the Light Truck (LT) tire segment, which represents a critical intersection of functionality, safety, and economic activity. Unlike passenger vehicle tires, LT tires are not optimized solely for on-road efficiency. Instead, they are engineered to

support a fundamentally different operating profile that includes higher loads, variable terrain interaction, and demanding off-road conditions.

As such, the application of uniform rolling resistance requirements across both passenger and LT categories does not adequately account for the distinct engineering constraints and performance requirements inherent to this segment.

A. Functional Requirements and Design Characteristics

LT tires are specifically designed for use on pickups, vans, and SUVs that carry heavier loads, operate under higher stress conditions, and frequently traverse non-paved surfaces. These functional requirements necessitate design characteristics that differ materially from passenger tire architectures.

Most notably, LT tires incorporate:

- Reinforced sidewalls and multi-ply constructions to support higher loads and resist puncture or structural failure under stress
- Deeper tread depths and aggressive tread geometries to generate traction in loose or uneven terrain
- Higher void ratios and larger tread blocks, enabling the tire to displace mud, sand, and debris and maintain contact with unstable surfaces

These characteristics are not incidental—they are essential to the tire's ability to perform safely under the conditions for which LT vehicles are used.

B. Safety Implications in Real-World Use

The significance of the LT segment extends beyond individual vehicle performance to broader societal and economic functions.

LT vehicles are widely used in:

- Emergency response (fire, rescue, law enforcement)
- Utilities and infrastructure maintenance
- Construction and field services
- Agriculture and rural operations

The consequences of this tradeoff are not theoretical—they manifest directly in real-world safety outcomes.

In off-road or mixed-use environments, insufficient traction can lead to:

- Vehicle immobilization in mud, sand, or snow
- Loss of control on uneven or unstable surfaces
- Increased likelihood of incidents during recovery or emergency maneuvers

Research on off-road conditions shows that traction losses can be severe, particularly on soft terrain where tire interaction with the ground is already constrained by material behavior such as sinkage and slip.

For LT vehicles, which often operate in remote or uncontrolled environments, these risks are magnified. Unlike passenger vehicles operating primarily on paved roads, LT vehicles frequently encounter conditions where traction is the primary determinant of safety.

Conclusion

The LT tire segment presents a clear example of where the proposed regulation conflicts with underlying engineering reality.

The design features required to ensure safe and reliable LT performance—particularly in off-road and load-bearing scenarios—are inherently incompatible with aggressive reductions in rolling resistance. Efforts to enforce such reductions would necessarily degrade critical performance attributes, resulting in measurable safety and operational risks.

As a result, the LT segment should be explicitly addressed through differentiated requirements, alternative metrics, or targeted exemptions to ensure that regulatory objectives are pursued without compromising essential functionality.

V

VII. Scope and Applicability of Motorsports

A critical omission in the proposed regulation is the absence of a clear and explicit exemption for non-DOT / “not for highway use” race, motorsport, and track-dedicated tires including tires with UTQG wear less than or equal to 200 that are specified by racing certification bodies such as SCCA and NASA. This omission introduces both scope inconsistency and unintended regulatory consequences, given the fundamentally different design objectives, operating conditions, and use of these products. The inclusion of these products would not only affect the nearly 20,000 recreational motorsports enthusiasts in California, but could threaten to close over 200 race tracks throughout the state if tires could not be sources for motorsports.

Motorsports tires represent a specialized category of products that are not intended for public road use, are governed by entirely different performance criteria, and do not contribute meaningfully to the emissions profile that the regulation seeks to address.

A. Misalignment with Regulatory Scope and Intent

The stated objective of the regulation is to reduce emissions associated with on-road vehicle operation, primarily through improvements in rolling resistance across the light-duty vehicle fleet.

Race and track tires fall outside this scope for several key reasons:

- They are not certified for highway use and are explicitly excluded from standard regulatory frameworks governing on-road tires
- They are used in controlled environments, including racetracks, off-road courses, and motorsport facilities
- Their usage is intermittent and limited, rather than part of the daily transportation fleet

As a result, these products do not contribute in any meaningful way to:

- Aggregate vehicle miles traveled (VMT) on public roads
- Statewide energy consumption related to transportation
- Emissions reductions targeted by efficiency regulations

Including such products within the scope of the regulation does not advance its environmental objectives and instead represents a misalignment between policy design and real-world application.

B. Fundamental Engineering Incompatibility

Motorsport and track-dedicated tires are engineered with entirely different priorities than conventional passenger or even performance on-road tires.

These products are specifically designed to maximize:

- Peak traction and grip, particularly under extreme conditions
- High-speed stability and responsiveness
- Consistent performance across varying track temperatures and load conditions

To achieve these objectives, race tires typically utilize:

- Very soft rubber compounds, designed to maximize surface adhesion
- High hysteresis materials, increasing energy dissipation for grip
- Minimal tread depth or slick designs, maximizing contact patch

These characteristics are directly and intentionally incompatible with low rolling resistance. As established in tire science, high grip is achieved through increased deformation and energy loss, which inherently increases rolling resistance.

Therefore:
Motorsport tires are not merely difficult to adapt to rolling resistance requirements—they are fundamentally designed in opposition to those requirements to ensure the safety of the vehicle and its drivers.

Requiring compliance with rolling resistance thresholds would necessitate eliminating the defining functional characteristics of these products, rendering them unsuitable for their intended use.

C. Disproportionate Market Impact

Although motorsport and non-DOT tires represent a relatively small segment of total tire volume, they play a disproportionately important role in:

- Performance and enthusiast segments
- Organized motorsport activities
- Aftermarket innovation and technology development

Restricting these products would:

- Eliminate or severely constrain a legitimate product category
- Impact motorsport-related businesses, events, and associated industries, likely closing these businesses or seeing them move outside the state for commerce
- Provide no measurable environmental benefit in return

This creates a negative cost-benefit outcome, where economic and consumer impacts are real, but environmental gains are effectively nonexistent.

Conclusion

The inclusion of race and motorsport tires within the scope of the proposed regulation represents a misapplication of performance standards to a product category that is both technically incompatible and environmentally irrelevant to the regulation’s objectives.

These products:

- Do not meaningfully contribute to transportation emissions
- Are engineered for fundamentally different performance objectives

- Would not see reduced usage if restricted
- Would introduce safety and economic impacts without corresponding benefit

Accordingly, the explicit exemption of race and motorsport tires is necessary to preserve the technical integrity, enforceability, and effectiveness of the regulatory framework.

When such products are restricted, the likely outcome is not reduced usage, but rather a shift in purchasing behavior. Consumers who require these products—such as motorsport participants or off-road users—are likely to purchase them outside California and transport them back into the state.

This behavior is well documented in regulated markets and represents a predictable response to product restrictions. As a result, the regulation would not reduce the use of such tires but would instead shift economic activity away from California while reducing the ability of regulators to monitor and control the market.

Continental considers the tires mentioned in the section as specialty tires and because of their non-DOT / “Not for highway use” categorization, Continental would consider these tires part of the segment of certain off-road tires that are excluded from the proposed regulation unless specifically told otherwise.

Continental does not believe that the California Energy Commission intends to shut down racing and motorsports in the state of California that could directly effect or eliminate the sales of tires in the state for use in: circuit racing (ie NASCAR and Formula 1) drag racing, asphalt and dirt ovals, karting, off-road, desert and rally. Please include these exclusions to ensure the commission does not do so.

VIII. Implementation Timeline and Phased Introduction

A central structural deficiency of the proposed regulation lies in the misalignment between implementation deadlines, Phase 2 performance requirements, and the realities of technological development and established regulatory precedent. The proposal imposes aggressive performance thresholds within a compressed timeframe that does not reflect either the engineering constraints of tire design or the structured, phased approaches historically used in comparable regulatory frameworks.

When evaluated holistically, including the interaction between timelines, technical feasibility, and market behavior, the proposed approach introduces a significant risk that the regulation will drive product removal rather than innovation, while failing to deliver the intended environmental benefits.

A. Misalignment with Tire Development and Validation Cycles

The development of tire products is inherently a multi-year process, requiring iterative engineering and validation across multiple performance dimensions. This process includes:

- Compound formulation and material validation
- Structural design and simulation
- Laboratory testing (rolling resistance, wet grip, wear)
- Vehicle-level validation and durability testing
- Production tooling and manufacturing integration

As a result:
Product development timelines are inherently bounded by both engineering complexity and safety validation requirements.

Critically, products expected to be sold within the proposed compliance window are already in advanced development stages. This eliminates the opportunity for redesign within the regulatory timeframe and creates a structural outcome in which compliance is achieved through **removal of non-compliant products**, rather than through innovation or improved performance.

C. Compounding Effect of Compressed Timelines and Aggressive Targets

The interaction between compressed timelines and aggressive performance requirements produces a compounded structural risk.

Specifically:

- The timeline prevents redesigning products currently in development
- The performance requirements exceed incremental engineering capability
- The absence of enforcement mechanisms weakens compliance incentives

This combination leads to a predictable market outcome:

Product withdrawal, reduced availability, and segmentation distortion rather than broad-based innovation.

Additional downstream effects may include:

- Reduced SKU diversity
- Substitution toward unregulated or out-of-state products
- Increased risk of unintended performance tradeoffs affecting safety
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D. International Regulatory Precedent – UNECE and EU Tire Frameworks

International tire regulatory frameworks—particularly those developed under UNECE Regulation No. 117 and implemented within the European Union—provide a well-established model for introducing rolling resistance requirements.

Under UNECE No. 117:

- Rolling resistance requirements were introduced in stages (e.g., R1 followed by R2 limits)
- Different tire categories were required to comply at different points in time
- Multi-year transition periods were provided between stages
- Requirements were aligned with measurable technological readiness

For example:

- More stringent rolling resistance limits were first applied to newly homologated products
- Broader market applicability was introduced only after additional transition periods

This approach reflects a critical regulatory principle:

Performance requirements should be introduced progressively across segments and timelines, rather than applied uniformly across all categories at once.

Additionally, UNECE has continued to evolve requirements incrementally, including the phased introduction of new performance dimensions such as wet grip for worn tires, reinforcing the importance of **gradual, validated progression**.

E. Broader Regulatory Precedent – Phased Energy Efficiency Implementation

The use of staged implementation is consistent across broader energy efficiency regulatory frameworks.

For example, U.S. Department of Energy appliance and lighting standards:

- Introduce requirements through multiple regulatory cycles
- Provide extended compliance timelines (often years or decades)
- Allow gradual transition of technology and supply chains

Similarly, California Energy Commission regulatory programs (e.g., Title 20 and Title 24) are:

- Updated through iterative rulemaking cycles
- Structured to allow industry adaptation and validation
- Designed to align performance improvements with demonstrated feasibility

These frameworks demonstrate that:
Effective regulations are implemented through phased, predictable, and iterative approaches—not abrupt step-change requirements.

F. Recommended Phased Implementation Framework for California

To align with both engineering constraints and established regulatory precedent, Continental recommends that the Commission adopt a **multi-stage implementation structure modeled on UNECE No. 117**, tailored to the California market.

1. Phase 1 – Initial Market Alignment

- Establish rolling resistance thresholds aligned with **current market capability**
- Apply initial requirements to technically feasible, high-volume passenger segments
- Introduce baseline **reporting requirements for traction and wear**

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2. Phase 2 – Progressive Performance Advancement

- Introduce more stringent rolling resistance thresholds after a defined transition period
- Expand applicability across additional segments as feasibility is demonstrated
- Require **validated SKU-level performance data confirming no degradation in traction and wear**

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3. Phase 3 – Full Market Integration

- Extend requirements across broader market segments with:
  - Segment-specific accommodations where necessary (e.g., LT tires, OE-aligned products, controlled fleets)
- Maintain integrated performance evaluation across:
  - Rolling resistance
  - Traction
  - Wear

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4. Segmentation-Based Timing
Consistent with UNECE implementation, compliance timing should reflect differences in product categories, including:

- Passenger tire segments → earliest implementation
- Light Truck (LT) and specialized segments → extended timelines
- OE-aligned and controlled fleet applications → tailored treatment reflecting system-level validation

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G. Benefits of a Phased Implementation Approach

Adopting a staged framework provides critical advantages:

- **Technical Feasibility**
  Aligns requirements with engineering and material development timelines

- **Market Stability**
  Prevents abrupt product discontinuation and supply disruption
- **Safety Assurance**
  Allows time to validate traction and wear performance alongside rolling resistance
- **Regulatory Effectiveness**
  Enables refinement based on real-world data and observed market outcomes

Most importantly:
A phased approach ensures that efficiency improvements are achieved without compromising safety, durability, or product availability during the transition.

Conclusion

The proposed implementation deadlines and Phase 2 requirements are misaligned with:

- Established tire engineering constraints
- Proven international regulatory frameworks (UNECE / EU)
- Broader energy efficiency regulatory practices

Global regulatory experience demonstrates that:
Effective tire efficiency standards are implemented through staged, adaptive frameworks aligned with technological readiness and market reality.

Absent such an approach, the proposed regulation risks driving product removal rather than innovation, while introducing unintended safety, market, and environmental impacts.
Continental respectfully recommends that the Commission adopt a **phased implementation structure aligned with UNECE principles** to ensure that regulatory objectives are achieved in a technically feasible, safety-consistent, and market-stable manner.

IX. Enforcement and Compliance

A central structural weakness of the proposed regulation is the absence of a clearly defined enforcement and compliance framework, despite the regulation's reliance on a high assumed compliance rate to achieve its stated environmental objectives.

The regulation implicitly assumes that manufacturers, distributors, and retailers will comply at a level sufficient to materially reduce fleet-wide rolling resistance. However, without clearly defined mechanisms to measure, verify, and enforce compliance, this assumption lacks practical or regulatory foundation.

In established regulatory practice, enforcement is not ancillary to regulatory effectiveness—it is foundational to achieving intended outcomes. The absence of such mechanisms creates a structural gap that undermines both the feasibility and credibility of the proposed rule.

A. Absence of Measurable Compliance Framework

The proposed regulation does not define a clear system for:

- Tracking compliance at the SKU or model level
- Verifying manufacturer-provided performance data
- Monitoring product availability in the market
- Identifying and addressing noncompliant products

Without such mechanisms:

Compliance becomes effectively unobservable, and therefore unenforceable.

B. Structural Dependence on Self-Certification

In its current form, the regulation relies heavily on self-certification by manufacturers, without clearly defined processes for independent validation or ongoing compliance verification.

This stands in contrast to established regulatory frameworks—both within California and internationally—where compliance systems include:

- Product registration and certification databases
- Third-party verification
- Market surveillance and audit procedures

UNECE tire regulations require formal type approval certification and marking systems to demonstrate compliance with rolling resistance, wet grip, and noise limits. [continenta...-tires.com]

The absence of comparable mechanisms in the proposed regulation introduces a critical weakness:

Self-certification without verification does not provide a reliable basis for regulatory compliance.

C. Incentive Misalignment and the “Free-Rider” Problem
The lack of enforcement creates a structural incentive imbalance that is likely to drive noncompliant behavior.

Compliance with rolling resistance requirements requires:

- Investment in research and development
- Changes to material composition and tire design
- Additional testing and validation

These costs are borne solely by compliant manufacturers. In the absence of enforcement, manufacturers who do not comply avoid these costs while maintaining product performance advantages in traction, wear, or price.

This creates a classic “free-rider” problem, where:

- Compliant actors incur higher costs
- Noncompliant actors gain competitive advantage
- Market share shifts toward noncompliant products

This dynamic is well understood in regulatory design:

Without enforcement, compliance becomes economically disadvantageous.

As a result, even manufacturers initially intending to comply may be forced to reconsider participation if noncompliant competitors capture market share.

D. Expected Market Outcome Under Low Enforcement

The combination of:

- High compliance cost

- Limited enforcement
- Competitive market pressures

leads to a predictable market outcome.

Rather than shifting the entire market toward improved rolling resistance performance, the likely result is:

1. Selective compliance by a subset of manufacturers
2. Expansion of noncompliant or exempt product categories
3. Reduced availability of compliant products
4. Increased fragmentation of the market

In aggregate, this may result in:

No meaningful reduction—and potentially an increase—in average rolling resistance across the full market.

This occurs because compliance does not reach sufficient penetration to influence overall fleet performance.

E. Cross-Border Effects and Enforcement Limitations

The global nature of the tire market introduces additional enforcement challenges.

Consumers—particularly those seeking specialized or high-performance products, can purchase tires outside California and transport them into the state. This is especially relevant where regulations restrict availability of certain products.

The regulation may influence where products are sold, but not where they are used.
As a result, environmental outcomes remain unchanged while regulatory oversight is reduced.

F. Implications for Environmental and Policy Outcomes

Because the regulation's environmental benefits depend on widespread compliance, the absence of enforcement directly undermines its effectiveness.

Without reliable compliance:

- Rolling resistance reductions cannot be verified at the fleet level
- Environmental savings become theoretical rather than measurable
- Policy credibility may be diminished

This creates a fundamental risk:

The regulation may impose costs and market disruption without delivering corresponding environmental benefits.

G. Recommendation

To ensure regulatory effectiveness, a comprehensive enforcement framework is required, including:

1. Certification and Reporting

- Mandatory product-level certification of rolling resistance

- Centralized reporting of compliant SKUs

2. Verification and Audit
   - Independent or third-party verification mechanisms
   - Periodic audits of manufacturer data
3. Market Surveillance
   - Monitoring of products available for sale within California
   - Mechanisms to identify and remove noncompliant products
4. Enforcement Authority
   - Clearly defined penalties for noncompliance
   - Authority to restrict sale of noncompliant products
5. Alignment with Existing Systems
   - Integration with existing compliance frameworks (e.g., appliance standards databases)

Conclusion

The proposed regulation relies on high compliance assumptions but does not include the enforcement mechanisms necessary to achieve or verify that compliance.
This creates a structural inconsistency in which:

- Compliance is assumed but not enforced
- Costs are imposed without ensuring participation
- Market dynamics favor noncompliance

Without a robust and clearly defined enforcement framework, the regulation risks failing to achieve its intended objectives and may instead result in market distortion, reduced safety performance, and limited environmental benefit.

Even with an auditing system in place for compliance, the fractured natural on imported tire brands would lead to the search of 1,000 needles in a haystack trying to eliminate all the bad actors and an incentive to add needles the stack every time one is found.

X. Federal Preemption and the Energy Independence and Security Act

A significant legal concern with the proposed regulation is the unresolved interaction between the California Replacement Tire Efficiency Program and the federal Energy Independence and Security Act of 2007 ("EISA"), 49 U.S.C. § 32304A. Although the CEC Staff Report concludes that the proposed regulations are "consistent with federal law," Continental respectfully submits that this conclusion rests on an incomplete analysis that does not adequately account for the scope and structure of the EISA's preemption provisions.

A. The EISA Preemption Framework

Section 32304A(h) of the EISA establishes a preemption clause that expressly defines the interaction between the federal tire fuel efficiency program and state regulations. EISA provides that a state may adopt or enforce a law or regulation on tire fuel efficiency consumer information enacted or published after January 1, 2006, only if the requirements of that law or regulation are "identical to" the requirements issued under the EISA.

The CEC Staff Report relies on two arguments to avoid preemption: (1) that Assembly Bill 844 was enacted in 2003, prior to EISA's January 1, 2006, cutoff date; and (2) that EISA "shall not be construed to preempt a state from regulating the fuel efficiency of tires (including establishing test methods for determining compliance with such standards) not otherwise preempted under" the EISA.

Continental submits that neither argument fully resolves the preemption question as applied to the proposed regulations.

B. The "Identical To" Requirement and Consumer Information

The EISA's preemption clause applies specifically to state laws on "tire fuel efficiency consumer information" enacted after January 1, 2006. While AB 844 was enacted in 2003, the regulations themselves are being promulgated in 2026—more than two decades after the statute's passage and nearly two decades after EISA's enactment. The proposed regulations include a consumer information component: a tire efficiency rating system using a "leaf" scale, a public-facing database, and reporting requirements that generate consumer-accessible efficiency data.

To the extent these consumer information requirements differ from the NHTSA's 2012 regulations prescribing test methods for rolling resistance, wet grip, and treadwear ratings, the "identical to" requirement may not be satisfied. The CEC Staff Report asserts that the proposed consumer information requirements are "essentially identical" to those adopted by NHTSA, but "essentially identical" is not the statutory standard—the statute requires that the requirements be "identical to" the federal requirements. Any material deviation in the rating structure, presentation methodology, or scope of information disclosed may trigger the preemption clause.

Continental requests that the Commission provide a detailed, provision-by-provision comparison demonstrating that the consumer information components of the proposed regulation satisfy the "identical to" requirement of 49 U.S.C. § 32304A(h)(1), rather than relying on a generalized assertion of essential similarity.

C. Minimum Performance Standards and the Scope of the Savings Clause

The EISA's savings clause provides that the statute shall not be construed to preempt a state from "regulating the fuel efficiency of tires (including establishing test methods for determining compliance with such standards) not otherwise preempted under" the EISA. The CEC Staff Report relies on this provision, together with the fact that NHTSA has not adopted federal minimum performance standards, to conclude that California's proposed MPS does not conflict with federal law.

CEC‘s analysis conflates the absence of current federal standards with the absence of federal authority to set them. The FAST Act of 2015 supplemented the EISA program by directing NHTSA to establish minimum performance standards for the efficiency and traction of passenger car tires. Although NHTSA halted that rulemaking in 2017, the federal statutory authority and directive remain in place. The CEC Staff Report acknowledges that "no formal rulemaking has been adopted by the federal government" to set minimum performance standards, but does not address what would occur if NHTSA were to resume its rulemaking and adopt standards that differ from California's MPS.

This creates a prospective conflict preemption concern: if NHTSA subsequently adopts minimum performance standards for passenger car tires under the FAST Act that set different thresholds than those adopted by California, the continued enforceability of the California standards becomes uncertain. There is no mechanism in the proposed regulation for automatic harmonization with subsequently adopted federal standards, nor any process by which the CEC would suspend or modify its MPS in the event of federal action.

Continental respectfully requests that the Commission address: (1) the legal effect on the California MPS if NHTSA adopts differing federal minimum performance standards under its existing statutory authority; and (2) whether the proposed regulation should include a provision for automatic harmonization or reassessment upon the adoption of federal standards.

D. Light Truck Tires and The Limits of the EISA’s Scope

The CEC Staff Report notes that the EISA's replacement tire efficiency program does not apply to light-truck tires, and concludes that California's proposed regulations applicable to light-truck tires therefore do not conflict with federal law. While this analysis may be correct with respect to the EISA specifically, it does not address whether other federal statutes or regulations governing vehicle safety—including those administered by NHTSA under the National Traffic and Motor Vehicle Safety Act, 49 U.S.C. § 30101 et seq.—may impose constraints on state regulation of tire performance characteristics.

To the extent that the proposed rolling resistance requirements for light-truck tires may degrade safety-critical performance attributes such as traction, load-bearing capacity, or puncture resistance, the regulation may conflict with the purposes of federal motor vehicle safety standards. Continental requests that the Commission address whether and how the proposed LT tire standards interact with existing FMVSS requirements, particularly FMVSS No. 119 (tires for vehicles other than passenger cars) and FMVSS No. 139 (new pneumatic radial tires for light vehicles).

E. Dormant Commerce Clause Considerations

Independent of express preemption under the EISA, the proposed regulation raises concerns under the dormant Commerce Clause of the U.S. Constitution. The proposed regulation would impose performance requirements on products manufactured entirely in other states and nations, effectively dictating the design specifications of products produced outside California's borders.

While California has broad authority to regulate products sold within its borders, the dormant Commerce Clause prohibits state regulations that impose burdens on interstate commerce that are "clearly excessive in relation to the putative local benefits." *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970). Given that (1) the regulation may force the withdrawal of a substantial number of tire products from the California market; (2) the regulation's environmental benefits depend on compliance assumptions that are untested and unenforceable; and (3) the 15,000-unit exemption creates a structural framework likely to shift market share rather than reduce actual rolling resistance at the fleet level, the Commission should evaluate whether the regulation's practical burdens on interstate commerce are proportionate to the local benefits it is likely to deliver.

F. Recommendation

Continental Tire respectfully requests that the Commission:

1. Provide a detailed provision-by-provision analysis demonstrating that the consumer information components of the proposed regulation satisfy the "identical to" standard of 49 U.S.C. § 32304A(h)(1).
2. Address the prospective conflict preemption issue arising from NHTSA's retained statutory authority to set federal minimum performance standards under the FAST Act, and clarify how the California MPS would interact with subsequently adopted federal standards.
3. Evaluate the interaction between the proposed LT tire rolling resistance requirements and existing Federal Motor Vehicle Safety Standards.
4. Conduct and disclose an analysis of the regulation's compliance with dormant Commerce Clause requirements, including an assessment of whether the regulation's burdens on interstate commerce are proportionate to demonstrable local benefits.

Conclusion

Continental acknowledges that a market-averaging approach is not self-executing—without adequate enforcement mechanisms, any regulatory structure, including an "on average" standard, is

susceptible to the same gaming, free-rider dynamics, and verification failures identified. A market-averaging system that lacks centralized tracking of SKU-level performance data, independent verification of manufacturer-reported rolling resistance values, and meaningful audit and surveillance procedures would be no more capable of delivering measurable fleet-level improvements than the per-tire minimum performance standard the CEC has proposed. Continental does not suggest otherwise. However, the critical distinction is that a properly enforced market-averaging mechanism would achieve the statute's "on average" objective, subject to the technological feasibility contracts identified, while preserving product diversity, accommodating the inherent engineering tradeoffs among rolling resistance, traction, and wear, and avoiding the wholesale removal of product categories from the California market. By contrast, the proposed per-tire MPS eliminates entire segments of the distribution—including specialty, performance, and application-specific tires—even where less restrictive regulatory structures authorized by the statute could achieve the same objective, and does so within a framework that, as currently structured, lacks the very enforcement infrastructure necessary to ensure that the remaining market actually delivers the intended efficiency gains. The result is a regulatory design that imposes the most restrictive possible compliance mechanism on the products it does reach while providing no assurance that the broader market— by product diversity will participate in achieving the statutory objective at all. An averaging system with robust enforcement is preferable on both statutory and practical grounds: it aligns with the legislative text of PRC Section 25772, it permits the market flexibility necessary to accommodate legitimate performance variation, and it creates a framework in which enforcement resources are directed toward verifying aggregate market outcomes rather than policing individual product thresholds across thousands of SKUs.

In addition, the federal preemption landscape governing tire efficiency regulation is complex and only partially addressed in the Staff Report. The CEC's conclusion that the proposed regulations are "consistent with federal law" does not adequately engage with the specific textual requirements of the EISA's preemption clause, the ongoing federal statutory authority to set minimum performance standards, or the constitutional constraints imposed by the Commerce Clause. Without a more rigorous legal analysis, the proposed regulation faces material legal risk that could result in partial or complete invalidation upon judicial review or federal regulatory action.

XI. **Statutory Authority — The Proposed Regulation Exceeds the CEC's Delegated Power Under Public Resources Code Sections 25770–25773**

Continental Tire respectfully submits that the proposed regulation, as currently structured, exceeds the scope of the rulemaking authority delegated to the CEC by Public Resources Code Sections 25770 through 25773. Under California law, no regulation is valid or effective unless it is "within the scope of authority conferred and in accordance with standards prescribed by other provisions of law." Gov. Code § 11342.1. A regulation that exceeds the enabling statute's delegation is ultra vires and subject to invalidation upon judicial review. Gov. Code § 11350(a). Continental raises the following concerns regarding the CEC's statutory authority to adopt the regulation in its proposed form.

A. The "On Average" Statutory Standard Does Not Authorize Per-Tire Minimum Performance Standards

Public Resources Code Section 25772 directs the CEC to adopt a program "designed to ensure that replacement tires sold in the state are at least as energy efficient, on average, as tires sold in the state as original equipment on new passenger cars and light-duty trucks." The operative statutory language is "on average." This phrase imposes a market-level objective—it directs the CEC to ensure that the replacement tire market as a whole achieves average efficiency parity with the OE tire market as a whole.

The proposed regulation does not implement an "on average" standard. Instead, it imposes absolute per-tire minimum performance standards that prohibit the sale of any individual replacement tire with a rolling resistance coefficient above specified thresholds. Under the proposed Phase 2 requirements, every base replacement tire must achieve an RRC of 7.1 N/kN or below—regardless of how the broader market performs in the aggregate.

This is a fundamentally different regulatory approach than what the statute authorizes. An "on average" standard permits a distribution of tire efficiencies across the market, so long as the mean efficiency of replacement tires meets or exceeds the mean efficiency of OE tires. It contemplates that some replacement tires may be less efficient than the OE average, provided that others are sufficiently efficient to bring the market-wide average into compliance. By contrast, an absolute minimum performance standard eliminates the lower tail of the distribution entirely, prohibiting products that the statutory standard would permit to exist in the market.

The distinction matters because:

The statutory language "on average" was a deliberate legislative choice. The Legislature could have directed the CEC to ensure that "each" or "every" replacement tire meets OE efficiency levels—but it did not.

An "on average" standard accommodates product diversity, including specialty, performance, and application-specific tires that may trade efficiency for other attributes, provided the market as a whole meets the statutory target.

A per-tire MPS eliminates entire product categories from the market even where the statutory objective could be achieved through less restrictive means—such as a fleet-averaging or credit-trading mechanism.

Continental submits that the CEC's adoption of per-tire minimum performance standards, rather than a market-averaging mechanism, exceeds the authority conferred by PRC Section 25772 and constitutes a regulatory approach that the enabling statute does not authorize.

B. The Regulation Fails to Satisfy Mandatory Statutory Constraints Under PRC Section 25773(a)

Public Resources Code Section 25773(a) imposes four mandatory constraints on the CEC's rulemaking authority. Specifically, the regulations adopted under this program:

1. Must be technically feasible and cost-effective (PRC § 25773(a)(1)(A));
2. Shall not adversely affect tire safety (PRC § 25773(a)(1)(B));
3. Shall not adversely affect the average tire life of replacement tires (PRC § 25773(a)(1)(C)); and
4. Shall not adversely affect state efforts to manage scrap tires (PRC § 25773(a)(1)(D)).

These are not discretionary policy goals—they are binding legal prerequisites that the CEC must satisfy before it may lawfully adopt the regulation. A regulation that fails any one of these requirements is not merely imprudent; it is outside the scope of the CEC's delegated authority and legally invalid.

As detailed extensively in Sections II, III, and V of this comment letter, the proposed regulation raises concerns regarding each of these constraints:

Technical Feasibility. The Phase 2 requirements impose rolling resistance thresholds that, in specialized product categories including light-truck tires and ultra-high-performance tires, extend beyond what incremental engineering improvement can achieve within the proposed timeframe. Products currently in advanced development cannot be redesigned to meet Phase 2 targets by January 1, 2031. Compliance in these segments will be achieved through product removal rather than technological advancement—which does not constitute technical "feasibility" within the meaning of the statute.

Tire Safety. The fundamental interdependence of rolling resistance, traction, and wear—the "magic triangle"—means that aggressive reductions in rolling resistance introduce measurable risk to wet braking performance. The CEC's reliance on aggregate statistical data showing no correlation between RRC and wet grip does not account for the constraints that apply at the margins of the performance envelope, where the proposed Phase 2 thresholds would force tire designs. A regulation that requires tradeoffs in safety-critical performance attributes to achieve efficiency targets does not satisfy the statutory prohibition on adverse safety effects.

Average Tire Life. The proposed regulation does not adequately account for the relationship between low rolling resistance and accelerated wear in high-torque and high-weight applications, particularly electric vehicles. If the regulation reduces the average lifespan of replacement tires—even by shifting the market toward shorter-lived tire architectures—it violates PRC Section 25773(a)(1)(C).

Scrap Tire Management. If the regulation increases tire replacement frequency—whether through accelerated wear, reduced tread depth, or market substitution toward shorter-lived products—the resulting increase in tire waste directly undermines state scrap tire management efforts, contrary to PRC Section 25773(a)(1)(D).

Continental submits that the CEC has not demonstrated, with the specificity required for lawful rulemaking, that the proposed regulation satisfies all four mandatory statutory constraints across all tire categories and segments affected by the regulation.

C. The CEC Cannot Lawfully Adopt a Regulation That Produces Outcomes Contrary to Its Statutory Purpose

Under Government Code Section 11342.2, a regulation is not valid unless it is "consistent and not in conflict with the statute and reasonably necessary to effectuate the purpose of the statute." The stated purpose of the enabling legislation is to improve the energy efficiency of the replacement tire market. A regulation that, by its structure, produces outcomes contrary to that purpose—such as driving compliant products out of the market while noncompliant or exempt products fill the resulting vacuum—is not "reasonably necessary to effectuate" the statutory purpose and is therefore invalid.

As detailed in Sections of this comment letter, the interaction between the 15,000-unit exemption, the absence of enforceable compliance mechanisms, and the incentive misalignment created by unequal regulatory burdens creates a structural dynamic in which the regulation may produce a net increase—rather than decrease—in average fleet-level rolling resistance. A regulation that is structurally incapable of achieving its own statutory objective cannot satisfy the "reasonably necessary" standard required for validity.

D. The CEC's Interpretation of "On Average" Must Be Expressly Addressed in the Final Statement of Reasons

Under Government Code Section 11346.9(a)(3), the CEC is required to provide a summary of each objection directed at the proposed action together with an explanation of how the proposed action has been changed to accommodate the objection or the reasons for making no change.

Continental submits the following specific objection to the CEC:

The proposed per-tire minimum performance standard structure exceeds the authority delegated by PRC Section 25772, which requires the program to ensure replacement tires are as efficient "on average" as OE tires. Continental objects that the proposed regulation adopts a regulatory mechanism—absolute per-tire minimum —that is not authorized by the "on average" statutory language, and respectfully requests that the CEC explain in its Final Statement of Reasons: (1) its interpretation of the phrase "on average" in PRC Section 25772; (2) why a per-tire MPS is

authorized under a statute that directs only a market-average outcome; and (3) what less restrictive alternatives were considered that would achieve the statutory "on average" objective without imposing per-tire prohibitions.

E. Recommendation

Continental Tire respectfully requests that the Commission:

1. Identify the specific statutory provision that authorizes the adoption of per-tire minimum performance standards (rather than a market-averaging program) and explain how such standards are consistent with the "on average" language of PRC Section 25772.

2. Demonstrate that the proposed regulation satisfies all four mandatory constraints of PRC Section 25773(a) across each tire category subject to the regulation, including light-truck tires, ultra-high-performance tires, and low-load-index tires.

3. Address whether a market-averaging mechanism, fleet-wide efficiency crediting, or other less restrictive regulatory structures were considered as alternatives that would effectuate the "on average" statutory objective without eliminating individual products from the market.

4. Include in the Final Statement of Reasons a detailed explanation of the CEC's interpretation of its statutory authority under PRC Sections 25770–25773, responsive to this objection, as required by Government Code Section 11346.9(a)(3).

Conclusion

The CEC's authority to regulate replacement tire efficiency is not unlimited—it is bounded by the specific language and mandatory constraints of Public Resources Code Sections 25770 through 25773. The proposed regulation, by adopting per-tire minimum performance standards rather than a market-average mechanism, and by failing to demonstrate compliance with each of the statute's four mandatory constraints across all affected segments, raises questions regarding whether the regulation falls within the scope of the CEC's delegated authority. Continental preserves its objection that the regulation, as proposed, is ultra vires and requests that the Commission provide a complete statutory justification in the administrative record.

XII. Inadequacy of the Smithers Testing Program as an Evidentiary Basis for the Proposed Regulation

The CEC relies extensively on tire testing conducted by Smithers laboratories as the primary evidentiary basis for its determinations that the proposed regulation is technically feasible, will not compromise safety, and will not reduce tire life. Continental Tire respectfully submits that while Smithers is a recognized and reputable testing laboratory, the testing program as designed and interpreted by CEC staff contains methodological limitations that undermine the reliability of the conclusions drawn from it—particularly as applied to the binding statutory findings the CEC must make under PRC Section 25773(a).

A. Sample Size and Market Representativeness

The Smithers testing program evaluated 179 tire models. The replacement tire market available in California encompasses thousands of individual tire models across hundreds of sizes, fitments, and performance categories. A sample of 179 models represents a small fraction of the total market, and the CEC Staff Report does not demonstrate that this sample is statistically representative of the full population of tires that would be affected by the proposed regulation.

Critically, the Staff Report does not disclose: (1) The methodology used to select the 179 tire models for testing; (2) Whether the sample was designed to be statistically representative of the California replacement tire market by volume, category, or performance segment; (3) How many of the tested models fall within each of the proposed tire categories (base, low-load-index, light-truck, long-life, ultra-long-life, ultra-high-performance); (4) Whether the sample adequately represents tires at the margins of the proposed Phase 2 thresholds—i.e., tires with RRC values between 7.0 and 9.0, where the regulation would have its greatest market impact.

Without this information, it is impossible to assess whether the Smithers data support generalizable conclusions about the full range of products that would be affected by the regulation. A finding that 179 tested tires show no aggregate relationship between RRC and wet grip does not establish that no such relationship exists among the thousands of untested tire models that would be subject to compliance requirements.

B. The "No Relationship" Finding Is Misapplied

The CEC Staff Report relies on low coefficients of determination (R^2 values) from scatter plot analyses to conclude that there is "no relationship" between rolling resistance and wet grip, and "no relationship" between rolling resistance and treadwear. Specifically, the Staff Report reports R^2 values of approximately 0.02 for RRC vs. wet stopping distance and 0.015 for RRC vs. dry stopping distance, and 0.005 for RRC vs. Treadwell mileage.

Continental submits that these findings are being materially misinterpreted:

A low R^2 does not demonstrate the absence of a physical relationship. A low R^2 in a population-wide regression indicates that the tested variable (RRC) does not explain a large proportion of the total variance in the outcome variable (wet grip or treadwear) across the sample. This is expected, because wet grip and treadwear are influenced by many factors beyond rolling resistance—including tread design, compound formulation, construction geometry, and intended use case. The fact that RRC is not the dominant predictor of wet grip across a heterogeneous sample does not mean that reducing RRC in a specific tire design will not degrade that tire's wet grip.

The relevant question is not population-level correlation but design-level constraint. The regulatory concern is not whether, across all tires in the market, efficient tires happen to also have good wet grip. The concern is whether, for a given tire design, reducing rolling resistance to meet the proposed thresholds will require engineering tradeoffs that degrade traction or wear. These are different questions. The first is a descriptive statistical observation about the current market; the second is a causal engineering constraint governing what happens when a manufacturer must redesign a specific product. The Smithers data address only the first question. The CEC has not conducted or commissioned testing that addresses the second.

The data does not test the effect of the regulation itself. The 179 tire models tested by Smithers are products that already exist in the market—they were designed to their current specifications without regard to the proposed regulation. The critical question is what will happen to tire performance when manufacturers must reformulate and redesign products that currently do not meet the proposed thresholds to bring them into compliance. The Smithers data cannot answer this question because they do not test tires that have been redesigned under compliance pressure. The finding that some existing efficient tires also have acceptable wet grip does not demonstrate that tires currently above the MPS threshold can be made efficient without sacrificing other attributes.

C. Failure to Test at the Regulatory Boundary

The proposed Phase 2 MPS for base tires is 7.1 N/kN—which the CEC acknowledges is the average RRC of OE tires in its sample. By definition, approximately half of existing replacement tires have RRC values above this threshold and would need to either meet the standard or be withdrawn from the California market.

The Smithers testing does not specifically analyze what happens to the safety and durability characteristics of tires that are currently in the 7.1–9.0 RRC range when they are reformulated to achieve RRC values at or below 7.1. This is the population of tires most affected by the regulation, and it is precisely the population for which the CEC must demonstrate that compliance will not adversely affect safety or tire life. Aggregate statistical analysis of a mixed sample that includes already-efficient tires does not satisfy this evidentiary burden.

Continental requests that the CEC identify which of the 179 tested tire models currently exceed the proposed Phase 2 thresholds, and explain what evidence supports the conclusion that those specific products can be redesigned to meet the thresholds without adverse effects on safety or tire life.

D. No Segment-Specific Analysis for Specialized Categories

The CEC Staff Report presents aggregate findings across all 179 tested tire models but does not provide disaggregated analyses for each of the proposed tire categories. The proposed regulation creates differentiated MPS thresholds for base tires, low-load-index tires, light-truck tires, long-life tires, ultra-long-life tires, and ultra-high-performance tires—yet the Staff Report does not demonstrate, category by category, that the Smithers data support the specific threshold assigned to each category.

For example:

The Staff Report notes that light-truck tires do not have UTQG ratings and are listed as "N/A" in the traction analysis. This means the primary safety metric relied upon by the CEC (UTQG traction rating) is unavailable for the LT segment—yet the CEC nonetheless proposes an LT-specific MPS without segment-specific safety data.

The ultra-high-performance tire category is represented by only 26 models in the Smithers sample. The Staff Report acknowledges that these tires exhibit "exceedingly high wet grip, as well as a higher average RRC," confirming the very tradeoff that the CEC's aggregate analysis claims does not exist. The CEC's resolution—providing a more lenient MPS for UHP tires—does not eliminate the concern; it merely acknowledges it while still imposing a threshold that may require performance compromises.

Continental submits that the CEC must provide category-specific evidentiary support for each differentiated MPS threshold, rather than relying on aggregate findings that mask segment-specific constraints.

E. Evidentiary Standard Under the Administrative Procedure Act

Under Government Code Section 11349(a), OAL reviews proposed regulations for "necessity," which requires that the rulemaking record contain facts, evidence, or expert opinion demonstrating the need for the regulation. Under Section 11350(b), a court reviewing the validity of a regulation

examines whether the agency's determination is supported by substantial evidence in the rulemaking record.

Continental submits that the Smithers testing program, as designed and interpreted, does not constitute substantial evidence supporting the CEC's mandatory statutory findings under PRC Section 25773(a) for the following reasons:

1. The sample is not demonstrated to be representative of the affected market;
2. The statistical methodology (population-level regression) does not address the causal engineering question (what happens when individual products are redesigned for compliance);
3. The testing does not evaluate the specific products or product categories most affected by the regulation;
4. The testing does not assess performance degradation under the conditions that matter most (high-load applications, EV-weight vehicles);
5. The disaggregated data necessary to support category-specific MPS thresholds have not been presented.

If these evidentiary gaps are not addressed, the rulemaking record may not contain substantial evidence supporting the CEC's determination that the regulation satisfies the mandatory constraints of PRC Section 25773(a)—rendering the regulation vulnerable to invalidation under Government Code Section 11350.

F. Recommendation

Continental Tire respectfully requests that the Commission:

1. Disclose the methodology used to select the 179 tire models for Smithers testing and demonstrate that the sample is statistically representative of the California replacement tire market across all proposed regulatory categories.
2. Conduct or commission additional testing specifically evaluating the safety and durability effects of redesigning tires currently above the Phase 2 thresholds to achieve compliance—rather than relying solely on observational data from tires that already meet the standard.
3. Provide disaggregated Smithers data and analysis for each proposed tire category, demonstrating category-specific support for each differentiated MPS threshold.
4. Explain how the Smithers testing program, given the limitations identified above, constitutes "substantial evidence" sufficient to support the mandatory statutory findings under PRC Section 25773(a) regarding safety, tire life, and scrap tire management.

Conclusion

The Smithers testing program provides useful descriptive data about the current tire market, but it does not answer the causal and predictive questions that the CEC must resolve to lawfully adopt the proposed regulation. The critical question is not whether some efficient tires in today's market also perform well on other metrics—it is whether the regulation, once in force, will cause adverse effects on safety and tire life as manufacturers redesign or withdraw products to achieve compliance. The current evidentiary record does not adequately address this question, and Continental respectfully submits that additional testing and analysis are required before the Commission can make the findings mandated by PRC Section 25773(a) with the confidence that lawful rulemaking demands.

XIII. Conclusion

The proposed Replacement Tire Efficiency Program, as currently structured, presents interrelated technical, regulatory, and market challenges that undermine its ability to achieve its intended environmental objectives. The regulation assumes that significant reductions in rolling resistance can be achieved quickly and broadly across the market yet established science shows that tire performance is constrained by unavoidable tradeoffs among rolling resistance, traction, and wear. These constraints are rooted in fundamental material behavior and cannot be overcome through short-term regulatory mandates without introducing risks to safety or durability.

At the same time, the absence of a clearly defined enforcement and compliance framework calls into question the feasibility of achieving the assumed outcomes. Without mechanisms for certification, verification, and market surveillance, compliance becomes both unobservable and economically disadvantageous. This creates predictable incentives for noncompliance, particularly when combined with broad exemptions and the ability of consumers to source products out of state. In practice, this means the regulation is likely to influence where products are sold rather than how they are used, limiting its real-world impact.

The implementation timeline and Phase 2 requirements further compound these concerns by imposing performance expectations that exceed both current technological capability and feasible development cycles. Tire regulations globally, including UNECE frameworks, have consistently relied on phased implementation over extended periods to accommodate engineering constraints and market adaptation. Similarly, energy efficiency standards in other sectors—including those administered by the CEC and U.S. Department of Energy—demonstrate that successful programs depend on incremental, staged improvements aligned with proven technology readiness.

Taken together, these factors indicate that, without substantial revision, the regulation risks producing outcomes counter to its intent, including reduced product availability, distorted market behavior, and potential degradation in safety and durability. A more effective approach would align regulatory targets with scientific realities, incorporate phased implementation, and establish enforceable compliance mechanisms. Only by addressing these structural issues can the program achieve meaningful and sustainable environmental benefits while preserving safety and market integrity.

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