



Item 9: Final Environmental Report and Replacement Tire Efficiency Program Regulations (Docket Nos. 24-TIRE-01 and 26-TIRE-01)

August 17, 2026 Business Meeting

Ken Rider, Senior Advisor to Chair Hochschild

Overview



Staff bring:

- Final Environmental Impact Report for certification.
- Proposed Replacement Tire Efficiency Program regulations to Commission for adoption.

Introduction to Tire Efficiency

Tires on new vehicles are significantly more efficient than replacement tires



Image credit: Discount Tire

- As a tire rolls, it flexes against the road — deforming and rebounding. That process generates heat using some of the energy that would otherwise keep the vehicle in motion. That energy loss is caused by rolling resistance.
- Lower rolling resistance tires commonly come standard on new vehicles, since they help automakers achieve better fuel economy and range.
- While low rolling resistance tires are also available as replacement tires, the average replacement tire is less efficient, which reduces fuel economy and range.
- This means that CA drivers will pay nearly \$1B more per year in fuel costs – often without knowing why, or how to fix it.

California Law Directs CEC to Act

Statute requires CEC to adopt standards, database, and rating system



Under Pub. Resources Code, § 25772, CEC is required to adopt:

... a tire energy efficiency program of statewide applicability for replacement tires, 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.

Under Pub. Resources Code, §§ 25771 and 25773, the CEC's program must include:

- Minimum performance standards
- Database and rating system

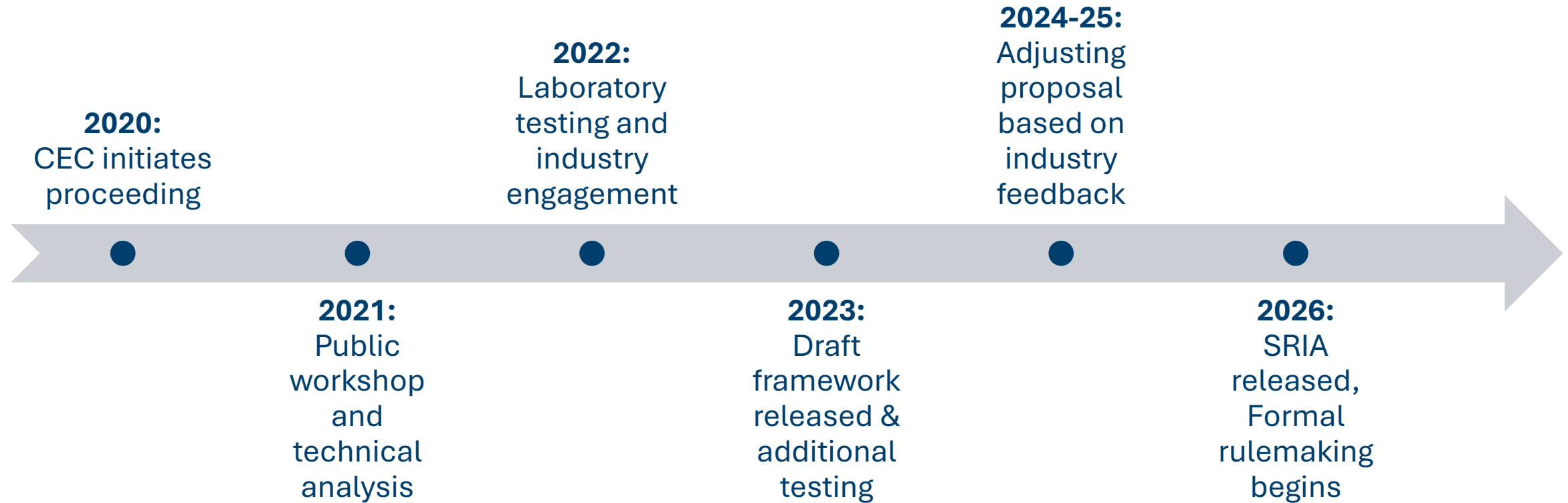
The minimum performance standards must:

- Be technically feasible and cost effective
- Not adversely affect tire safety
- Not adversely affect the average tire life of replacement tires
- Not adversely affect state efforts to manage scrap tires



Timeline of Proceeding

Proposal builds on prior staff proposal and industry engagement



Stakeholder Engagement

Regulation has been modified several times based on industry feedback



Original Framework (Feb '23)

- Phase 1 RRC of 8.3
- Phase 2 RRC of 6.3
- Two-year gap between Phase 1 and Phase 2

45-Day Language (April '26)

- Phase 1 RRC of 9.0
- Phase 2 RRC of 7.1 for cars (7.8 for light trucks)
- Three-year gap between Phase 1 and Phase 2
- Wet grip minimum
- New adders for long-life, ultra-long-life, ultra-high-performance, and low-load-index tires

15-Day Language (July '26)

- Four-year gap between Phase 1 and Phase 2
- New exemptions for competition tires and large off-road tires
- No standards for all-weather winter performance tires
- Clarifications on light-truck test procedures

Benefits to Californians

Annual Benefits shown after full Phase 2 turnover



Saves drivers **\$1B**
(gasoline & electricity)

*Equivalent to \$75 per year
per CA household*



Reduces electricity
demand by **0.9 TWh**

*Equivalent to annual
production of one smaller CA
natural gas plant*



Averts **2 million** metric
tons of CO₂e, **426 tons** of
NO_x, and **10 tons** of PM_{2.5}

*Equivalent to taking 400K
vehicles off the road each year*



Reduces gasoline demand
by **141M** gallons

*Equivalent to 1-2 months of
one CA refinery's annual
gasoline production*

Proposed Regulation





Regulation Scope

Scope has been carefully refined based on industry feedback



In-Scope

- ✓ Replacement tires and limited production tires if:
 - Manufactured on or after Jan 1, 2029
 - Sold or offered for sale in California
 - Designed to replace a tire on a passenger car or light-duty truck or commercial vehicle

Out-of-Scope

- ✗ Retreaded or used
- ✗ Deep tread
- ✗ Winter-type
- ✗ Space-saver
- ✗ Temporary use spare
- ✗ Nominal rim diameter of 13" or less
- ✗ Motorcycle
- ✗ Manufactured specifically for use on an off-road motorized recreational vehicle
- ✗ Load index ≥ 122 , or where the load index is not marked and is rated for a maximum load that exceeds 1450 kg.
- ✗ Unable to maintain sustained speeds greater than 50 mph
- ✗ Sold for use on an emergency vehicle
- ✗ Large off-road tires
- ✗ Competition tires
- ✗ A tire without a Tire Identification Number (TIN)



Special Circumstances

Even if a tire is in-scope, it may be exempted from performance standards under special circumstances

A tire may still be sold in California if the tire is:

- **Limited production:** Tires produced or imported into US at fewer than 15,000 units per year. Requires annual certification with CEC.
- **Exempted via petition:** If no compliant tire is available in sufficient quantities for a specific vehicle fitment, a manufacturer may petition CEC for an exemption. Approved exempt tires are listed in the CEC database of approved tires and may still be sold.
- **All-season winter performance tire:** These are tires that have better snow traction than typical all-season tires, but that can be kept on a car year-round (unlike more dedicated snow tires).

Regulation Requirements

Clear, verifiable requirements



To be sold in California, a replacement tire must:

- ✓ Be certified using required test methods and listed on CEC database.
- ✓ Comply with maximum rolling resistance standard.
- ✓ Comply with minimum wet grip standard.

Regulation Requirements

Roles and responsibilities



Manufacturers

- Design tires that meet standards.
- Test their products.
- List products in the CEC database by providing data.

Retailers

- Verify products they sell are on the list or out of the regulation's scope.

CEC

- Maintains the tire database and its integrity.
- Keeps regulations updated.
- Enforces the standards.

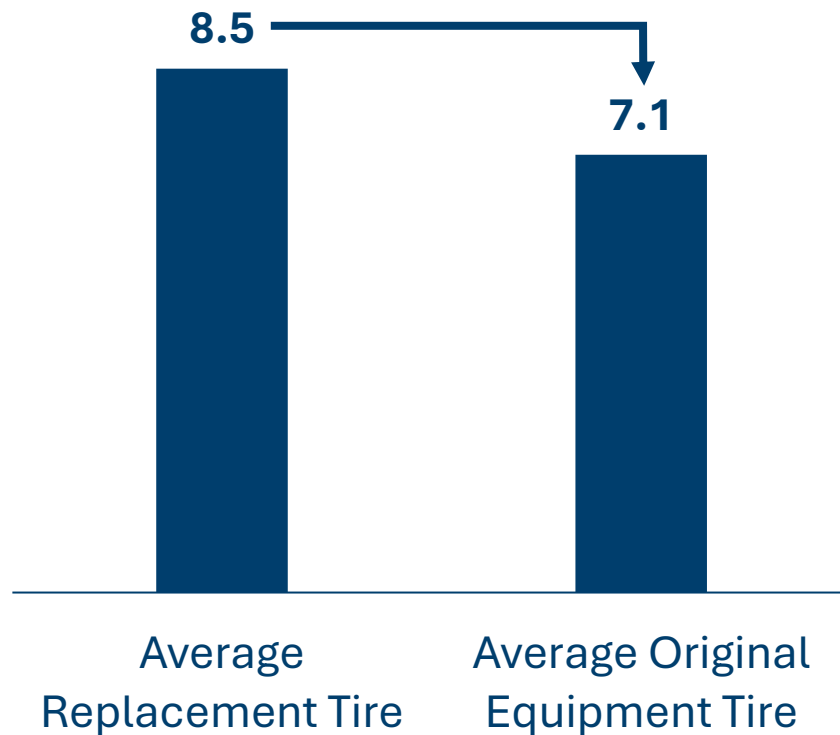
Rationale for Minimum Performance Standards

Closing the gap between replacement and original equipment (OE) tires



Market Gap Identified

RRC (N/kN, lower = more efficient)



- Statute directs CEC 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.”
- CEC commissioned independent laboratory testing by Smithers for replacement and OE tires for the most popular vehicles in California
- Goal is not to require that replacement tires mimic every aspect of OE tires; rather, OE tires simply provide the default efficiency target for replacement tires

Rolling Resistance Standards

Multi-phase approach with adders for specific product categories



Maximum Rolling Resistance Coefficients (RRC) in N/kN

Tire Category	Phase 1: January 1, 2029	Phase 2: January 1, 2033
Default	9.0	7.1
Low-load-index tires	9.5	7.6
Light-truck tires	9.0	7.8
Long-life tires	9.4	7.8
Ultra-long-life, ultra-high-performance tires, and run-flat tires	9.8	8.5

Lower RRC means a more energy-efficient tire.

Wet Grip Standard

Removing the least-safe tires from California roads



Minimum Relative Wet Grip Breaking Performance Index Standard

Tire Category	Phase 1: January 1, 2029	Phase 2: January 1, 2033
All tires subject to RRC standards	1.0	1.0

Wet grip is a tire's ability to brake on a wet road surface, expressed as a relative wet grip braking performance index. A higher wet grip index means better wet braking performance.

Consumer Information System

Aligned with existing rating system; no signage required for retailers



Fuel Efficiency Class	RRC Range (N/kN)
	≤ 6.5
	6.6-7.7
	7.8-9.0
	9.1-10.5
[No Rating]	≥ 10.6

- Statute requires the CEC to develop a rating system for the efficiency of replacement tires
- CEC's recommended information system is displayed on the left and is aligned with the European Union rating system
- Information would be available on CEC website; retailers are not required to post signage with information

Enforcement

CEC committed to vigorous enforcement to ensure a level playing field



Enforcement Regime

- Manufacturer certification to CEC database of approved tires under penalty of perjury, verified through:
 - Independent laboratory testing
 - Mandatory provision of test reports
- Retailers may only sell compliant tires listed on CEC database, verified through physical and online market surveillance
- When noncompliance is identified, CEC pursues an enforcement strategy:
 - Notices sent to retailers
 - Formal CEC determination of violation
 - Legal action against retailer

CEC Enforcement Expertise

- CEC has a dedicated enforcement team that regulates over a dozen categories of products for energy and water efficiency
- Current staffing for enforcement is 14 full-time staff, with additional cross-functional support
- In a typical year, enforcement team:
 - Physically inspects retailers
 - Tests products for compliance
 - Answers manufacturer / retailer questions
 - Concludes 30+ enforcement cases
 - Audits 5-10 testing laboratories

Key Findings



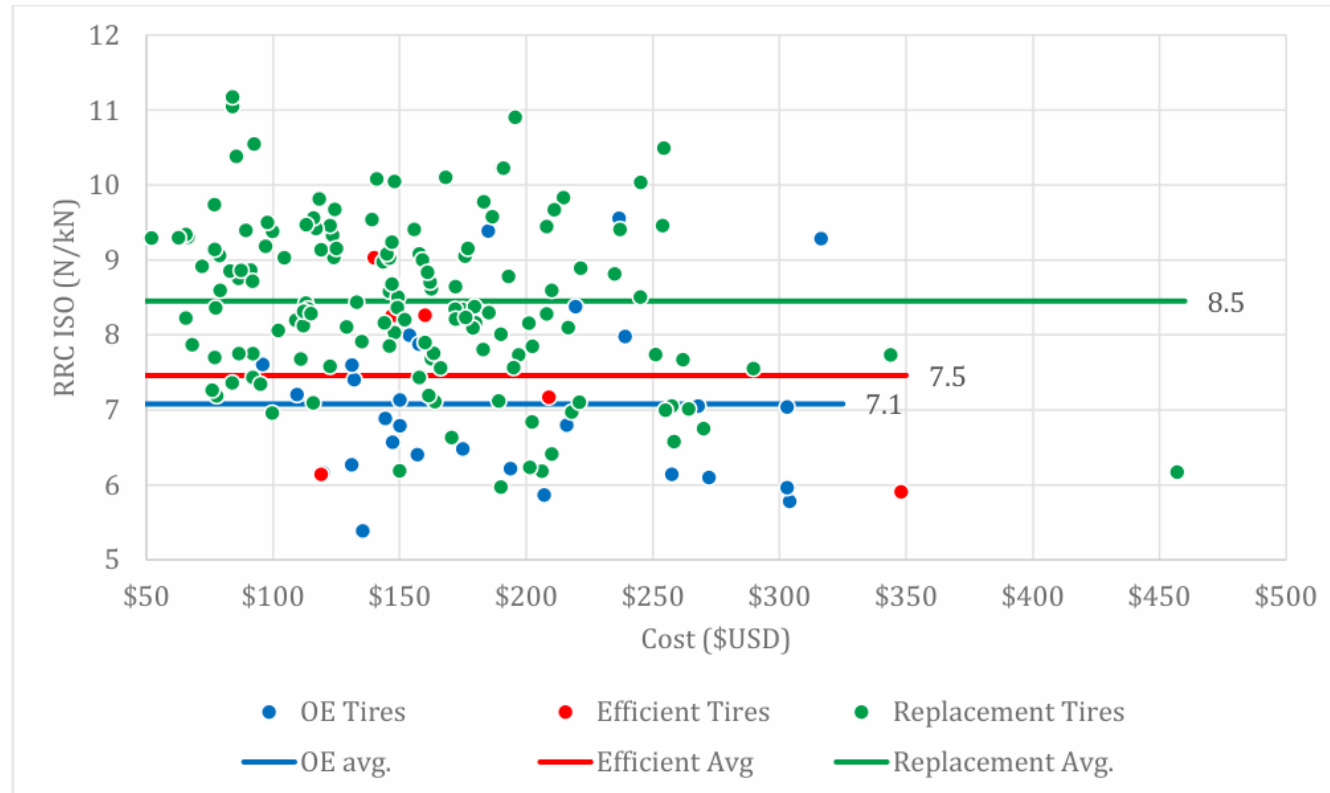


Standards Are Technically Feasible

More efficient technology is already widely-used in the California market



Smithers Testing: RRC (N/kN) vs. Cost





Individual Driver Benefits

Estimate for light-duty gasoline cars

Phase 1: 2029 to 2033

Savings	Costs	Net Savings
\$85 per set	Per set: \$6	\$79
	Per tire: \$1.50	

Payback period of ~3-4 months

Phase 2: 2033 and beyond

Savings	Costs	Net Savings
\$179 per set	Per set: \$26	\$153
	Per tire: \$6.50	

Payback period of ~7 months

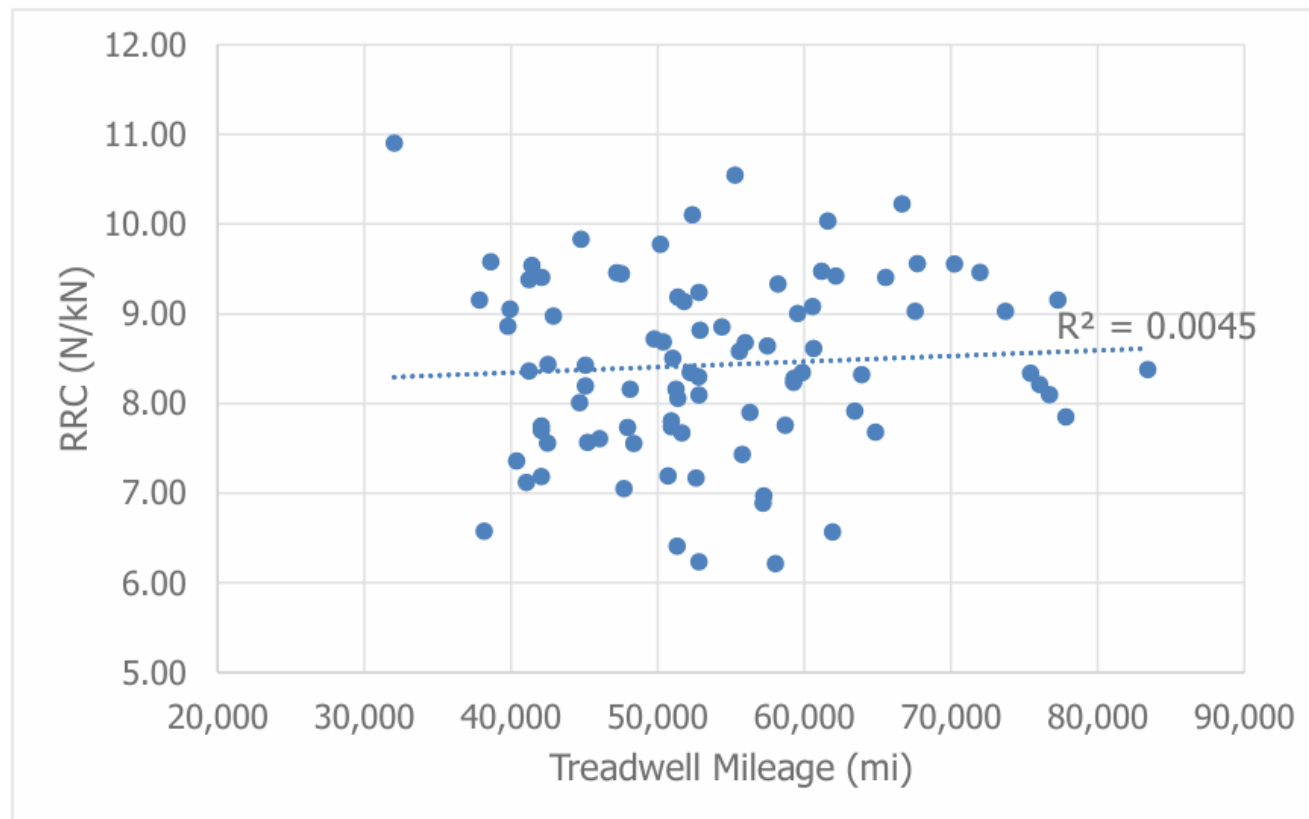
- Average driver of a light-duty gasoline vehicle will save about **\$179** over the life of their tires.
- These figures were calculated with gasoline prices of \$4.60 per gallon. At the elevated gasoline prices of mid-2026, the savings could be up to **25% higher** than estimated here.

No Required Tradeoff With Tire Lifespan

Confirmed through real-life mileage and laboratory testing

Discount Tire Treadwell™ Mileage vs Rolling Resistance

Real-life mileage data confirms no significant relationship between efficiency and Treadwell™ mileage (higher = better)





No Required Tradeoff With Tire Lifespan

Standards are designed to incentivize longer-life tires

- Data indicates no required tradeoff between efficiency and treadwear / lifespan.
- As additional measure, proposed regulation adds additional incentive for long-lasting tires:

	Long Life	Ultra-Long Life
Phase 1 RRC Adder	0.4	0.8
Phase 2 RRC Adder	0.7	1.4

- As a result:
 - **Increasing treadwear / lifespan** of tires will provide a compliance benefit
 - **Decreasing treadwear / lifespan** of tires will make compliance more difficult

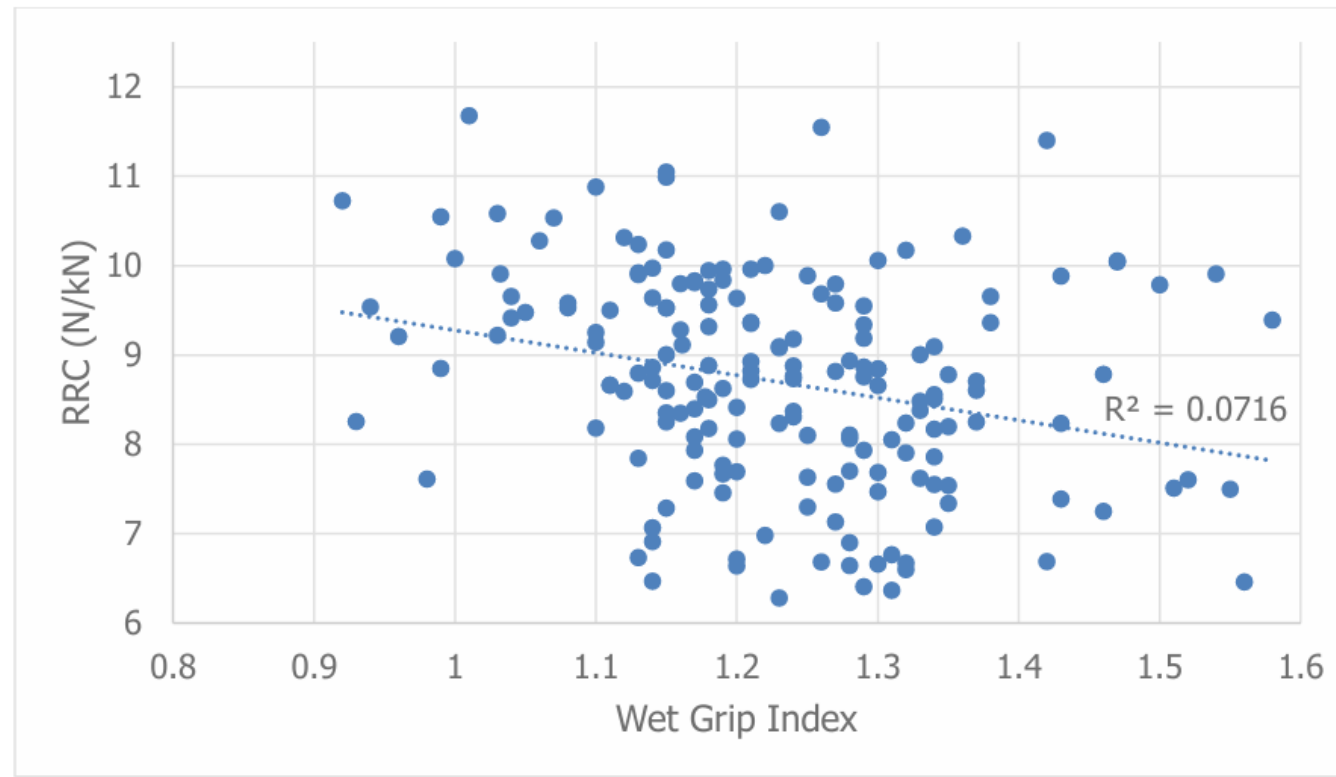
No Adverse Impacts on Safety

Confirmed through laboratory testing of both new and worn tires



Wet Grip Index vs Rolling Resistance

Testing confirms no significant relationship between efficiency and wet grip index of new tires (higher = better)





No Adverse Impacts on Safety

Standards are designed to incentivize safer tires

- Data indicates no adverse safety impacts of higher efficiency tires.
- As an additional measure, proposed regulation sets a minimum wet grip measure of 1.0.
- As an additional measure, proposed regulation relaxes efficiency requirements for ultra-high-performance tires, which are tires with exceptional wet grip performance.

Ultra High Performance	
Phase 1 RRC Adder	0.8
Phase 2 RRC Adder	1.4

- As a result of these measures:
 - **Increasing wet grip** will provide a compliance benefit
 - **Decreasing wet grip** will make compliance more difficult

Environmental Impact Report





Environmental Impact Report

Proceeding



- September 2024 CEC issued a notice of preparation, held a public meeting, and collected written comment.
- April 2026 CEC released its draft environmental impact report with a notice of availability with comments due in June 2026.
 - This draft report incorporated a response to comments explaining how each comment was addressed.
- August 7, 2026 CEC posted the final environmental impact report for consideration in the adoption order for this item.

Environmental Impact Report

Findings



- The Final Environmental Impact Report (EIR) considered potential impacts to solid waste, hazardous materials, air quality, and biological resources and compared them to alternative approaches.
- The Final EIR finds that the proposed regulations will not have any significant adverse effect on the environment.
- Preparation of the Final EIR, per the California Environmental Quality Act (CEQA), reflects the CEC's independent judgment, and is subject to consideration before adoption of the replacement tire efficiency program.
- The Final EIR includes updates that account for the revised regulatory language published on July 17, 2026.

Staff Recommendation





Staff Recommendation



- Staff recommends the Commission certify the Final EIR and adopt the proposed regulations