

# TIRE LIFESPAN FACT SHEET



## WHAT YOU NEED TO KNOW:

The California Energy Commission (CEC) is considering setting standards for the energy efficiency of replacement tires sold for passenger vehicles and light-duty trucks in California. Tire industry data show that CEC's proposed tire efficiency standards will not require reductions in the lifespan of replacement tires.

## Will the CEC's proposed regulation result in a shorter lifespan for replacement tires?

No. CEC has extensively reviewed best-in-class tire testing and research on tire performance, including tire lifespan. With advances in tire technology, replacement tires can now achieve strong performance on both lifespan and efficiency. The proposal would encourage a wider adoption of efficient tire design, saving Californians nearly \$1 billion in fuel per year, while also encouraging manufacturers to produce long-lasting tires.

## Why do some tires last longer than others?

A tire's lifespan is determined by tire design, driving behavior, road conditions, weight of the vehicle, maintenance, and other factors. In the California tire market, tires generally last between 30,000 and 80,000 miles, with most falling somewhere in the middle.

## How is tire lifespan measured?

There are at least two popular industry metrics for tire lifespan. The first is the federal tire-rating system known as Uniform Tire Quality Grading (UTQG), which compares the tread-life of different tires. Each tire receives a relative grade. A tire with a 200 treadwear grade is projected to last about twice as long as a tire graded 100. The second popular metric is real-world data on tire mileage collected by companies like Discount Tire. For example, Discount Tire's Treadwell™ program combines rigorous testing with millions of real-world tire inspection measurements, then uses advanced predictive modeling to estimate how long consumers can expect different tire models to last.

## How did CEC analyze the relationship between tire lifespan and efficiency?

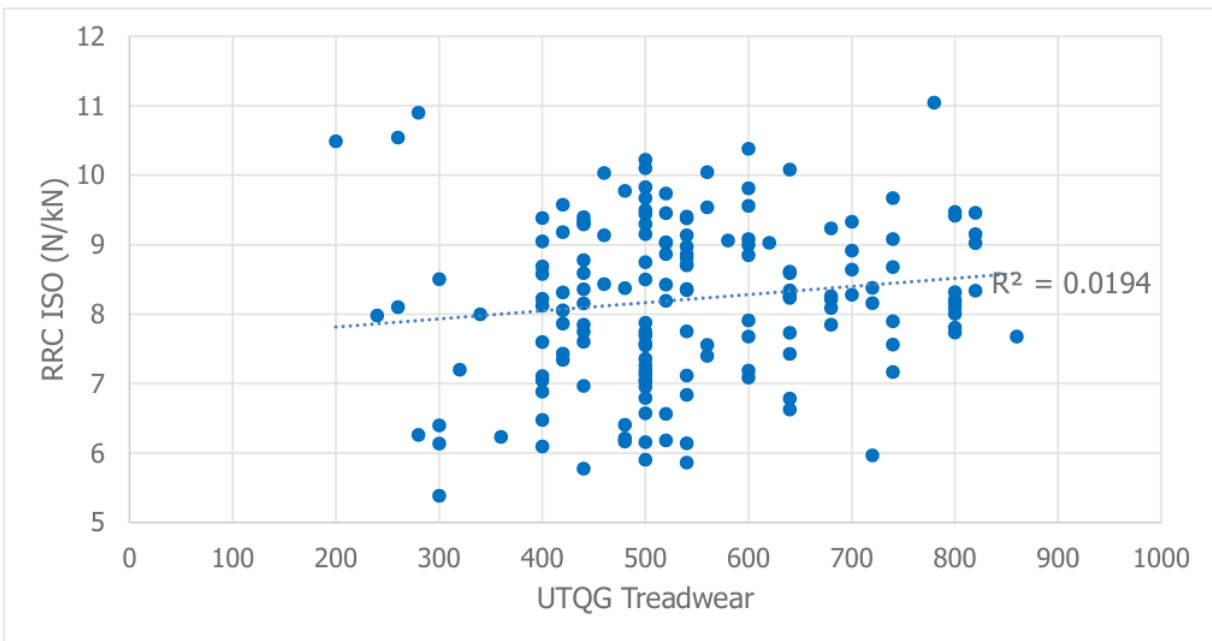
Over the last five years, CEC has collected data on many of the most popular replacement tires in California. In partnership with Smithers, a leading independent tire testing laboratory, CEC tested tires that are sold for the most popular cars and light-trucks in California, as measured by California DMV license registrations. CEC also paired this data with the two lifespan metrics discussed above: UTQG treadwear grades and Treadwell™ mileage. This data was analyzed extensively to determine whether increasing the average efficiency of California tires would require reducing the average lifespan of California tires.



### What do UTQG data show about tire lifespan and efficiency?

The UTQG data showed no relationship between efficiency and tire lifespan within the California market. Each dot in the following chart represents a tire tested by the CEC. The Y axis is the rolling resistance coefficient, a measure of efficiency where lower is better. The X axis is the UTQG treadwear grade, a measure of lifespan where higher is better.

UTQG Treadwear Grades and Rolling Resistance



Source: California's Proposed Replacement Tire Efficiency Program. California Energy Commission. Publication Number: CEC- 600-2026-012. Page 53, Figure 8.

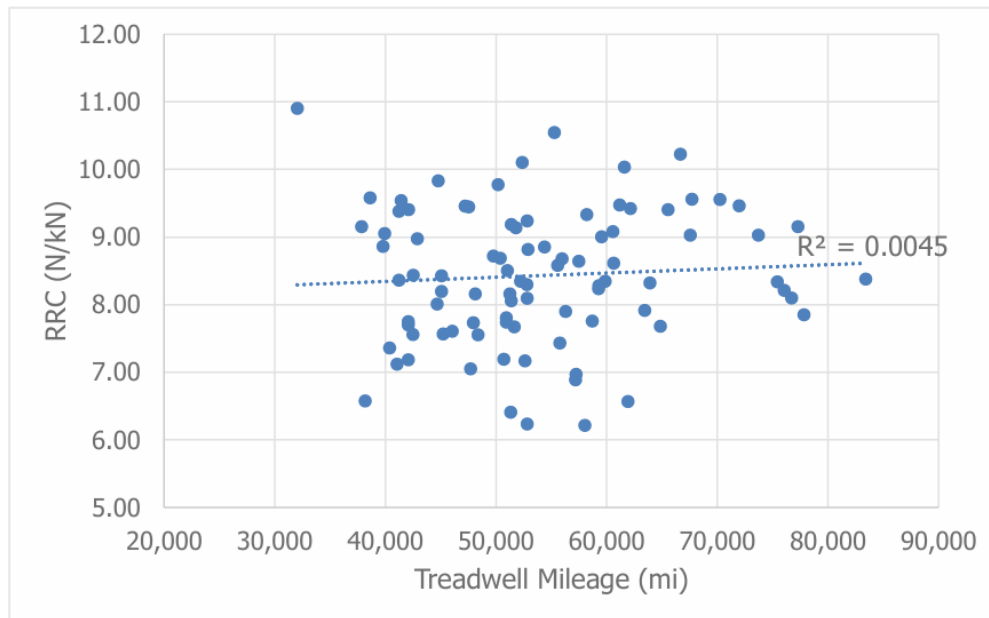
In this chart, the  $R^2$  value measures how much of the variation in tire efficiency, shown as RRC ISO (N/kN), is explained by a straight-line relationship with UTQG treadwear. Here, an  $R^2$  value of 0.0194 means that UTQG treadwear explains about 1.94% of the observed variation in rolling resistance. In other words, UTQG treadwear is an exceptionally poor predictor of tire efficiency. Staff also notes that a significant number of tire models possess low RRC and high UTQG treadwear grades, which indicates that existing California tires can and do achieve strong performance on both attributes simultaneously.

### What do Treadwell™ mileage data demonstrate about tire lifespan and efficiency?

Much like the UTQG treadwear data, the Discount Tire Treadwell™ data showed no relationship between efficiency and tire lifespan within the California market. As before, each dot in the following chart represents a tire tested by the CEC. The Y axis is the rolling resistance coefficient, a measure of efficiency where lower is better. The X axis is the Treadwell™ mileage grade, a measure of lifespan where higher is better.



### Treadwell™ Mileage and Rolling Resistance



Source: California's Proposed Replacement Tire Efficiency Program. California Energy Commission. Publication Number: CEC- 600-2026-012. Page 54, Figure 9.

In this chart, the  $R^2$  value measures how much of the variation in tire efficiency, shown as RRC ISO (N/kN), is explained by a straight-line relationship with Treadwell™ mileage. Here, an  $R^2$  value of 0.0045 means that Treadwell™ mileage explains about 0.45% of the observed variation in rolling resistance. In other words, Treadwell™ mileage is an exceptionally poor predictor of tire efficiency. Staff also notes that a significant number of tire models possess low RRC and high Treadwell™ mileage grades, which indicates that existing California tires can and do achieve strong performance on both attributes simultaneously.

#### **Are long-life tires discouraged under this proposal?**

No. The proposal is specifically designed to encourage manufacturers to produce longer-lasting tires, which save consumers money and reduce tire waste. It does so by creating compliance bonuses for long-life and ultra-long-life tires, based on their raw UTQG test scores. These tires receive significant reductions in their efficiency targets, which will provide a compliance benefit and encourage manufacturers to produce long-lasting tires.

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For rulemaking documents, analysis, and comment, please visit the [program webpage](#).

For media questions, please reach out to Media and Public Communications Office at [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov).

