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Tire Industry Association (TIA) Comments

The Tire Industry Association (TIA) is submitting these comments on behalf of its members in response to the California Energy Commission's OII proceeding. TIA has 1,102 members in the state of California. Thank you for the opportunity to provide comments.

Additional submitted attachment is included below.

March 11, 2021

DATA & INFORMATION COLLECTION FOR THE REPLACEMENT TIRE EFFICIENCY
PROGRAM

Docket #: 20-TIRE-01

Project Title: Tire Efficiency Order Instituting Information Proceeding

California Energy Commission

Docket Unit, MS-4

Docket No. 20-TIRE-01

1516 Ninth Street

Sacramento, California 95814-5512

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TIA Comments in Response to Tire Efficiency Order Instituting Information Proceeding

Under the authority granted by Assembly Bill 844 (Nation, 2003), the Energy Commission is mandated to adopt and implement a statewide Replacement Tire Efficiency Program for replacement tires for passenger cars and light-duty trucks, to ensure that replacement tires sold in California are at least as energy efficient as the tires sold as original equipment on the vehicles.

The Tire Industry Association (TIA) is submitting these comments on behalf of its members in response to the California Energy Commission's OII proceeding. Thank you for the opportunity to provide comments.

The Tire Industry Association is an international non-profit association representing all segments of the tire industry, including companies that manufacture, repair, recycle, sell, service or use new or retreaded tires, and also those suppliers or individuals who furnish equipment, material or services to the industry.



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The mission of TIA is to promote tire safety through training and education, to act as the principal advocate in government affairs and to enhance the image and professionalism of the industry so that our member businesses may be more successful. TIA has more than 13,000 members from all 50 states and around the globe. TIA has 1,102 members in the state of California. As the industry leader in tire service technician training, TIA has trained and/or certified more than 170,000 people since 1997.

TIA will provide comments on standards and testing, tire marketplace, California market and submarkets, technology, technology evaluations, and consumer benefits and experience.

As we gather more data and feedback from our members on these topics, we hope to have follow up conversations with the Commission to provide more information on the following questions.

Exhibit A:

Request for Information Regarding Tire Efficiency

1. Standards and Testing

- a. *What mandatory standards exist for original equipment manufacturer (OEM) tires sold in California?*

49 CFR 571.139 is the Federal Motor Vehicle Safety Standard (FMVSS) for all new pneumatic tires on motor vehicles with a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

- b. *What mandatory standards exist for replacement tires sold in California?*

49 CFR 571.139 (FMVSS 139) applies to new OEM and replacement tires.

- e. *How do OEM and replacement tire suppliers show compliance with existing mandatory or voluntary standards?*

The manufacturers self-certify that they have met the performance requirements outlined by 49 CFR 571.139.



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f. *What testing procedures exist for OEM tires?*

49 CFR 571.139 includes test procedures for high-speed performance, tire endurance, low inflation pressure performance, and tire strength.

g. *What testing procedures exist for replacement tires?*

They are identical to the ones that exist for OEM tires.

2. **Tire Marketplace**

b. *What are effective methods to inform a rating system, including tire efficiency ratings, and consumer awareness? How could a database be used to support consumer education?*

The most effective method to inform consumers would be to provide retailers with clear tire efficiency ratings that reflect the expected fuel savings over the life of the tire.

A SmartWay-type program would be the most effective in creating consumer awareness where certain makes and models would be “approved” as low rolling resistance (LRR) in a database, so tire purchasers have the option of selecting a more fuel-efficient tire. This approach would be easy to manage and easy for consumers to use when making tire purchasing decisions.

Consumer education on the benefits of low rolling resistance tires is important, but the emphasis should be placed on maintenance in areas like inflation pressure, rotation and alignment. Safety has to be the focus and those three areas alone have a positive impact on the lifespan and rolling resistance for every tire. An underinflated tire creates a wider footprint on the road that results in more resistance and lower fuel mileage. It also leads to failure and accelerated treadwear. Regular rotation every 5,000-7,000 miles ensures that all four tires wear evenly so there is a minimal difference in traction between the front and rear axle. This extends tire life and results in consistent handling characteristics as the tires gradually wear. Improper alignment increases rolling resistance and results in premature tire replacement. A consumer education program that focused on the safety and benefits of proper tire inflation, rotation and alignment could include other features like low rolling resistance, wet grip, and extended mileage. Under that model, a simple list of tires that qualify under a SmartWay-type program could be easily searchable for vehicle owners who want the benefits of a low rolling resistance tire.



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- c. *What are influencing factors of manufacturing cost and retail costs in tires? What are the key features that differentiate costs? To what extent do tire costs and features influence changes in installation costs?*

While there can be as many as 200 different raw materials in a tire, the mix of the main components like natural rubber, synthetic rubber, antioxidants/antiozonants and fillers are unique to each manufacturer depending on the performance criteria desired. In general, the more features the higher the price of the tire. Features do not influence changes in installation costs.

- e. *Who are the major stakeholders in the supply chain (manufacturers, suppliers, distributors, others)?*

Manufacturers, wholesalers/distributors, retailers/installers (brick/mortar, on-line, mobile).

3. California Market and Submarkets

- e. *What percent of replacement tire sales in California is comprised of low rolling resistance tires? Please describe or indicate how you are defining low rolling resistance tires for this response. Is the definition of low rolling resistance consistent across manufacturers?*

Growth from Knowledge (GfK) has a POS Tires panel that collects daily sell-out data from point-of-sale systems representing 29,000 independent tire dealer locations across the United States. GfK data reflects over 50% of the U.S. replacement passenger and light truck tire sales for the years 2017 to 2020. By tracking the tires sold to the public, GfK provides data that is a direct reflection on what brands consumers are purchasing.

While GfK does not track sub-category segments because they are not consistent across manufacturers, they estimated that approximately 2% of the market consisted of low rolling resistance tires in 2020. GfK searched for models with the words “green”, “eco”, and “energy saving” to define tires in the low rolling resistance sub-category.



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- h. What factors determine tire lifespan? To what degree do each of these factors influence the tire lifespan (including number of miles driven, road surface conditions, driver behavior, tire material makeup, tread wear depth/design, vehicle fuel efficiency, consumer purchase decisions, etc.)? How would these factors influence tire efficiency? Is there a difference between the evaluation by manufacturers of these factors?*

Driver behavior, inflation pressure maintenance, regular rotation, alignment, proper tire repair have more influence on tire lifespan than miles driven, road conditions, material makeup, tread depth/design and/or fuel efficiency.

- i. Are low rolling resistance tires available across different tire sub-categories? Is there a cost difference of low rolling resistance tires and other tire sub-categories?*

Low rolling resistance tires are more expensive than economy all-season tires that meet the safety requirements of FMVSS 139.

- p. What are the major barriers to wide application of the most efficient, low rolling resistance tires?*

Every vehicle and driver have different needs so the tire performance characteristics must match the style of driving and budget for the consumer. High performance sport models require high performance tires that provide the wet and dry grip necessary for those vehicles. Likewise, the drivers of sedans, crossovers, SUV's, and pickup trucks are all looking for something different in a tire, depending on the climate (such as snow conditions in Northern California) and expected road conditions. Mandatory wide application of LRR tires ultimately will limit consumer choice, which means some drivers will have to sacrifice characteristics like handling, mileage, or traction in favor of low rolling resistance.

In many cases, budget plays a major role in the purchasing decision. LRR tires are more expensive, so the mandatory wide application will result in higher costs, since there will be a limited number of options for each vehicle. California also should prepare for an increase in used tire sales, on-line tire sales and out-of-state tire sales for consumers who want the safety of new tires but cannot afford the mandatory LRR benefits.

Motorists also will be more likely to run their tires longer to avoid the higher replacement costs of LRR tires when new economy tires are not available. Safety has to be considered a barrier to the wide application of LRR tires because the higher costs will force some consumers to put off replacement until their tires are completely bald and have no useable tread.



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4. Technology

c. What are recent tire safety initiatives and improvements?

FMVSS 139 made significant improvements to passenger and light truck tires and according to the 2014 National Highway Traffic Safety Administration (NHTSA) report on tire aging, it has resulted in a 35% reduction in tire crashes, a 50% reduction in fatalities, and a 42% reduction in injuries when data from 2007 to 2010 was compared to annual averages from 1995 through 2006.

d. What are key indicators when measuring tire performance, including tire wear? Which materials are required during manufacturing?

Current industry indicators of performance are reflected by the Uniform Tire Quality Grading (UTQG) system, which has been in place since 1979. UTQG has three comparative grade designations:

1. Treadwear – A three-digit number that is a comparative figure to indicate the expected mileage. It's confusing and does not directly reflect the actual expected mileage so tire retailers focus on their own experience with the tire and manufacturer mileage warranties.
2. Traction – A letter (AA, A, B or C, AA is best) that reflects the ability to stop on wet pavement. It's used to some degree but doesn't account for differences with anti-lock brakes.
3. Temperature – A letter (A, B or C, A is best) that reflects the resistance to heat and is not used because all tires under FMVSS 139 must have an A or B rating.

e. What key technologies are in development or in the market that drive improvements to tire rolling resistance? What are the key tradeoffs in materials, cost, and performance that come with these technologies?

Technological improvements in tire rolling resistance that limit the number and level of tradeoffs result in a higher cost to the consumer. For the consumer that wants the best of everything in a tire, technology has reached the point where manufacturers can provide it at a premium price.

f. What are the relationships between rolling resistance, other key performance characteristics, and cost?



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Technological improvements in key performance areas that limit the number and level of tradeoffs will result in higher costs and fewer options for consumers when they are mandated.

h. What methods are used for verification of emissions reductions and fuel economy?

Each manufacturer has its own method for verifying emissions reductions and fuel economy, but the test methodology and results are not readily available for industry or consumer review.

i. How is tire lifespan measured? With regards to tire lifespan please describe the rated life, manufacturing principles, recycling, and environmental impacts.

Tire lifespan is measured in tread depth. When there is less than 2/32-inch tread remaining on the tire, it should be removed from service. The rate of treadwear depends on a variety of factors like tire inflation, tire rotation intervals, alignment, and driver behavior.

5. Technology Evaluations

a. Are there industry standards for conveying tire performance? Are there commonly understood grades of performance and categories that are used with OEMs or customers?

Current industry indicators of performance are reflected by the Uniform Tire Quality Grading (UTQG) system, which has been in place since 1979. UTQG has three comparative grade designations:

1. Treadwear – A three-digit number that is a comparative figure to indicate the expected mileage. It's confusing and does not directly reflect the actual mileage so tire retailers focus on manufacturer mileage warranties.
2. Traction – A letter (AA, A, B or C, AA is best) that reflects the ability to stop on wet pavement. It's used to some degree but doesn't account for differences with anti-lock brakes.
3. Temperature – A letter (A, B or C, A is best) that reflects the resistance to heat and is not used because all tires under FMVSS 139 must have an A or B rating.

b. What are tires currently tested for – for example, tread, durability test, mileage/distance test, etc.? How are tires currently tested?



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FMVSS 139 includes test procedures for high-speed performance, tire endurance, low inflation pressure performance, and tire strength.

- f. *The Canadian government has funded research finding that the U.S. and Canada form one integrated market. Do you agree or not, and why? To what extent is the U.S. market also integrated with the EU and Asian markets?*

The U.S. and Canada are an integrated market for tires from the standpoint that tires manufactured in the U.S. are shipped to Canada for distribution in Canada and tires manufactured in Canada are shipped to the U.S for distribution in the U.S.

Integration with the EU and Asian countries is primarily at the import level since the U.S. does not export many tires to those markets but imports them from all over the world.

- g. *What key studies have been conducted to evaluate replacement tire standards and the value of improving the fuel efficiency of replacement tires?*

None that we know of.

- n. *Will increased manufacturing and/or deployment of low rolling resistance replacement tires have other environmental impacts? If so, what impacts and why?*

More scrap tires and/or more robust used tire markets can be expected because some consumers will look to save money by purchasing used tires when inexpensive economy tires are no longer available.

Increased on-line sales and black-market installation should be expected to result in more tire dumping when retailers who follow California laws for tire recycling are cut out of the process, so consumers are faced with the problem of dealing with the old tires. Rural areas should be prepared for all levels of tire dumping when mandatory low rolling resistance forces consumers on-line only to discover that the local tire retailer is prohibited from installing a tire that is not approved for the vehicle.

Tire changing machines are available for around \$1,000 and can be installed in any garage. On-line customers will need someone to demount and mount the tires. It's logical to think that people will set up in their garage, charge a fee for the installation and disposal, fail to pay any taxes or report the income, operate without insurance, and then drive loads of scrap tires out to the desert or rural areas to be dumped on the side of the road. California should expect mandatory LRR requirements to result in more illegal tire



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disposal since the retailers who are already regulated will have a more limited role in how scrap tires are handled.

6. Consumer Benefits and Experience

- a. *What information do manufacturers provide to help consumers select tires (for example, fuel efficiency, road conditions, and other tire characteristics)?*

Manufacturer websites, social media and point-of-sale materials.

- b. *How is tire information provided to consumers (for example, during online shopping, brochure, verbal point of sale, not provided)?*

Most of the information is provided by the retailer at the time of the sale, whether it's on-line or in-person.

- d. *What are the main characteristics that consumers look for when buying tires? What priority is rolling resistance compared to price and other characteristics?*

It depends on the customer's needs, gas prices and the economy. For example, data from GfK shows that in 2018 and 2019, the total market growth was -2.5% and -0.2% respectively, while growth outside the top 25 brands was -8.1% and -2.5%. In other words, the economy brands lost more market share than the more popular brands from major U.S. manufacturers.

In 2020, GfK data shows an overall market growth rate of -6.3%, but the growth outside the top 25 brands was only -3.4%. While the economy brands were losing more market share in 2018 and 2019 when compared to the total market, the losses were considerably less in 2020 as more consumers opted for a less expensive tire in uncertain economic times.

A closer look at the 2020 data for the top 25 brands showed that only eight of the top 25 brands gained market share for the year with an average of 5% when compared to 2019 and most of them would be considered in the lower-cost economy segment. Based on GfK data, 17 of the top 25 brands lost an average of 9% market share in 2020, so price was more of a factor in 2020 than in 2019.



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- g. *Are there unique trends and preferences with electric vehicle tire replacements in comparison to combustion vehicle tire replacements?*

Electric vehicle drivers are seeing a direct correlation between rolling resistance and range. For example, a customer in an electric vehicle that chooses to select replacement tires and custom wheels in a plus-size fitment where the rim diameter is larger than the original equipment tire can expect to see less range because the wider tire with a more rigid sidewall will have more rolling resistance. The electric vehicle market is the best candidate for low rolling resistance tires, because the owner will see a direct connection between the type of tire and the range.

- i. *Would the increase in deployment of low rolling resistance tires stimulated by standards ratings and incentives affect low income and/or disadvantaged communities, and if so, how?*

Every vehicle owner in California will experience higher tire costs if LRR tires are mandated. Low income and/or disadvantaged communities will be adversely affected because the economy tires that provided low-cost new tire options compliant with FMVSS 139 will be eliminated.

If the deployment of low rolling resistance tires are stimulated by incentives so consumers still have a choice, then low income and/or disadvantaged communities will not be adversely affected because they still will have a low-cost option when faced with a tire purchase.

- j. *Are there unique trends and preferences for older vehicle tire replacements?*

Size proliferation and increasing rim diameters reduce the number of options for tire replacement on some older vehicles. If LRR tires are mandated, vehicle owners can expect even fewer options and higher costs.

- k. *Are there any trends in tire purchasing, with different tire sub-categories of performance growing or shrinking in overall market share?*

2020 GfK data shows that Goodyear, Michelin, and Bridgestone lost sales with lower growth rates when compared to 2019 with Michelin leading at -17.9%, Bridgestone at -12.2% and Goodyear at -9.3%.



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Conversely, Uniroyal (an economy brand owned by Michelin) experienced sales growth of 15.2% in 2020 when compared to 2019, while Multi-Mile (an economy brand owned by tire distributor TBC Corp.) sales grew by 11.9% in that time period.

The same growth rates for 2019 when compared to 2018 were Goodyear with a slight loss in sales at -2.8%, Michelin with marginal sales growth at 1.7% and Bridgestone at 1.0%, while Uniroyal sales were only up 0.9% and Multi-Mile experienced a significant drop in sales of -37.9%. Clearly, the pandemic created a trend toward lower cost tires in the economy line of passenger and light truck tire replacements as those two brands experienced double-digit sales growth during the economic downturn. If the economic recovery is slow and gas prices continue to rise, the trend towards more sales in the low-cost market segments should be expected to continue.

n. What are the payback periods for consumer tires?

When properly inflated and regularly rotated on a properly aligned vehicle with a driver that is not too aggressive with starting, stopping and turning, the payback period and lifecycle cost in general is measured over years. Poor maintenance and aggressive driving increase the lifecycle costs for tires.

p. Do the preferences in tire selection differ with planned and unplanned tire replacement?

In the majority of planned replacements, customers either conduct their own research to decide what tire they want, or they consult the retailer, and the decision is based on the budget and other factors. This usually involves the purchase of four tires.

Unplanned tire replacement selection could depend on what is available in the size, speed and load rating required by the vehicle placard. Unplanned replacement also accounts for the majority of one-, two- and three-tire purchases and in those instances, the brand and model may or may not influence the purchasing decision. In many of these situations, price is an important and/or the most important factor.

r. What benefits and concerns do community groups have, if any, about tire efficiency standards?

Community groups in lower income areas will have concerns, if tire efficiency standards are mandated. Vehicle owners in California will lose the right to choose low-cost economy tires that meet the safety requirements of FMVSS 139 and are available in 49 other states.



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- s. *What are the equity impacts to consider regarding replacement tire costs, including low rolling resistance tire options?*

Lower income vehicle owners in California will be forced to purchase low rolling resistance tires at a higher cost, which will lead more of them to the used tire market. Many budget-conscious vehicle owners are trying to make their vehicles as safe as possible for the lowest price. The economy tires that meet all of the safety requirements in FMVSS 139 are a great solution for the vehicle owner that wants new tires on a budget, so they don't have to take a chance with used tires. These customers are not interested in any fuel savings. They're focused on the safety of the vehicle, which is why they want new tires in the economy tier.

- t. *How might low income and disadvantaged communities benefit from expected fuel efficiency and reduction in pollution from energy efficient tire uptake?*

Every community benefits from a reduction in pollution, but there are more effective ways to reduce fuel consumption and vehicle emissions than mandating energy efficient tires. For example, research from AAA revealed that automatic stop-start systems provide a 5-7% improvement in fuel economy and a similar reduction in carbon-monoxide emissions. This technology would not have a negative impact on vehicle owners in low income and disadvantaged communities because the estimated cost is an additional \$300 which lasts for the lifetime of the vehicle. AAA determined that a vehicle driving 15,000 miles a year that averages 20 mpg with fuel prices at \$3.65 a gallon could save up to \$179 in fuel costs annually. We are unaware of any data that shows similar results from energy efficient tires.

- u. *Describe the potential impacts from individual drivers/vehicles with and without low rolling resistance tires.*

There are a lot of drivers with minimal interest in fuel mileage, especially in the low income and disadvantaged communities. Some of these vehicle owners are primarily focused on keeping the vehicle running safely and add fuel when necessary. As far as tires are concerned, they are looking for an economic alternative to used tires and are not concerned with low rolling resistance, improved wet grip, extended treadwear, or any of the other features and benefits found in premium tires. Faced with the economic choice of safety or improved fuel mileage, many of these vehicle owners will choose the safety that comes with low-cost new tires that meet the safety requirements of FMVSS 139.



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Electric vehicle owners definitely will see the impact of low rolling resistant tires in terms of range. Consumers who choose plus-fitments (which might be unavailable if the OEM LRR is mandated) often see the range on a full charge drop because the wider footprint creates more rolling resistance. The same can be expected with different types of LRR tires and their respective ranges. Motorists with electric vehicles will benefit the most from low rolling resistance tires.

- v. *How much benefit would a rating system and greater consumer awareness achieve? What types of programs would be most effective, and why?*

TIA recommends a SmartWay model where tires that meet certain rolling resistance standards are self-certified by the manufacturer (like the requirements in FMVSS 139) and then placed on an approved list. Consumers could choose a fuel-efficient tire from that list and receive some form of credit, rebate, or tax break as an additional benefit to the fuel savings. This type of program would be the most effective because it is voluntary and preserves the right to select the type of tire that best suits the needs of the vehicle owner.

TIA is continuing to gather data on these topics, and will provide additional information to the Commission when appropriate. Please do not hesitate to contact TIA for further information and feedback from our members.

We welcome the opportunity to meet with the California Energy Commission as we proceed to share the impact that a potential proposal will have on a variety of stakeholders and businesses in the state of California.

TIA would be interested in sharing with the California Energy Commission a presentation on the impact proposals would have on the retail segment of the industry.

We appreciate the opportunity to comment.

Sincerely,

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