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Comments of US Tire Manufacturers Association and Tire and Rubber Association of Canada

Additional submitted attachment is included below.

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March 23, 2023

California Energy Commission
Docket Unit, MS-4
Docket No. 20-Tire-01
715 P Street
Sacramento, CA 95814

RE: Comments on Replacement Tire Efficiency Pre-Rulemaking Staff Workshop February 14, 2023 (CEC Docket No. 20-Tire-01)

On behalf of the members of the U.S. Tire Manufacturers Association (USTMA) and the Tire and Rubber Association of Canada (TRAC), we appreciate the opportunity to provide comments following the Replacement Tire Efficiency Pre-Rulemaking Staff Workshop held February 14, 2023. USTMA is the national trade association for tire manufacturers that produce tires in the U.S. USTMA members[1] operate 57 manufacturing facilities in 17 states, are

[1] USTMA tire manufacturer members include the following companies: Bridgestone Americas, Inc.; Continental Tire the Americas, LLC; Giti Tire (USA) Ltd.; The Goodyear Tire & Rubber Company; Hankook Tire America Corp.; Kumho Tire U.S.A., Inc.; Michelin North America, Inc.; Nokian Tyres; Pirelli Tire North America Inc.; Sumitomo Rubber Industries USA, Inc.; Toyo Tire Holdings of Americas Inc. and Yokohama Tire Corporation.

responsible for more than 291,000 jobs and have an annual economic footprint of $170.6 billion in the United States. In California, the tire manufacturing industry is responsible for over 21,000 jobs and has an economic footprint of nearly $4.5 billion (see Appendix A for more detailed information about the U.S. tire industry's economic impact in California). In addition, USTMA member companies have established headquarters offices (4), operate numerous tire warehouses, own tire retail/service locations (170+) and operate tire retread locations in California. USTMA advances a sustainable tire manufacturing industry through a commitment to science-based public policy advocacy. USTMA members are committed to continuous improvement of the performance of our products, worker and consumer safety and environmental stewardship.

TRAC[2] is the Canadian trade association representing the interests of tire and other rubber manufacturers and importers of rubber goods into Canada, together with rubber recyclers and suppliers whose goods and services directly relate to the industry. As the national trade association, TRAC strengthens and protects the reputation and competitiveness of the Canadian tire and rubber industry, with focus on government relations, sustainability, public education, industry data and networking.

[2] TRAC tire manufacturer members include the following companies: Bridgestone Canada Inc.; Continental Tire Canada, Inc.; Giti Tire (Canada) Ltd.; Goodyear Canada Inc.; Hankook Tire Canada Corp.; Huayi Tire Canada, Inc.; Kumho Tire Canada, Inc.; Maxxis International – Canada; Michelin North America (Canada) Inc.; Nexen Tire Canada Inc.; Nokian Tyres Inc.; Pirelli Tire Inc.; Sailun Tire Americas Inc.; Sumitomo Rubber North America, Inc.; Toyo Tire Canada Inc.; and Tyromer Inc.; and Yokohama Tire (Canada) Inc.

USTMA and TRAC member companies' tires make mobility possible and keep North Americas'[3] economies moving. USTMA/TRAC recognize that tires contribute to vehicle fuel economy and can positively contribute to the reduction of greenhouse gas emissions in a comprehensive climate change strategy. USTMA and TRAC member companies are committed to sustainable manufacturing practices in every aspect of their businesses. As global leaders in manufacturing, our members embrace a shared responsibility of helping to achieve a more sustainable society. In particular, USTMA recognizes three essential pillars of sustainability: safety, environment and economic impact. USTMA has established six sustainability visions to illustrate our commitments. One of the sustainability visions relates directly to this proceeding. Additionally, USTMA members strive to reduce greenhouse gas emissions throughout a tire's life cycle, which includes producing tires that reduce vehicle CO2 emissions. USTMA and TRAC members further recognize the importance of ensuring that other critical tire performance characteristics, including wet traction and treadwear, are maintained at acceptable levels as tire efficiency is improved.

I. USTMA/TRAC Principles on Tire Consumer Information and Standards

A. We Support a Unified North American Approach

USTMA and TRAC strongly support a common, consistent North American approach to consumer information and minimum performance standards since both countries have similar products and regulatory requirements. This approach would maximize impact and

[3] For the tire industry, the Americas are divided into two marketing areas – North America, consisting of the U.S. and Canada, and Latin America, which includes Mexico. Use of the term North America in this comment refers to the tire marketing area, not a geographic area.

effectiveness, minimize costs associated with implementation, and provide clear, consistent messages to all consumers in the region.

B. We Support Technology Neutral Regulations with Periodic Benchmarking and Review

USTMA and TRAC members embrace the opportunity to develop new, innovative technologies to enhance tire and vehicle safety, performance, and reliability. We support developing regulations in both Canada and the U.S. that can be updated over time with minimal regulatory process. More adaptable regulations would ensure that regulations remain relevant as tire technology and performance advance and encourage continued intergovernmental collaboration to ensure that the regulations remain consistent over time. USTMA and TRAC advocate that governments consider potential disparate impacts on new and existing tire technologies as they develop new or updated regulations and focus their regulatory efforts on performance, rather than specific technologies.

Today, with rapidly evolving technology in the era of autonomous and connected vehicle innovation, currently established technologies are being challenged, enhanced, and replaced. Regulations that once would have been considered technology neutral are now viewed as technology limiting. Yet, this trend is not new. For example, antilock braking prevents a vehicle's brakes from locking up, so the "slide" based tire wet traction measurement upon which the NHTSA Uniform Tire Quality Grading (UTQG) Standards wet traction rating is based became irrelevant. Instead, with antilock braking now mandated by FMVSS/CMVSS No. 135, the penetration of this technology in the on-road vehicle fleet is now high enough that tire wet traction now is most appropriately measured by the "peak" coefficient of friction. Still, due to

the difficulty of modifying the UTQG regulation, the UTQG wet traction test remains based on the "slide" coefficient of friction, which causes tire manufacturers to design tires to an obsolete test that does not mimic the tire performance demanded by modern vehicles.

To ensure that regulations remain relevant over time and do not become technology limiting, governments should incorporate regulatory provisions that require periodic product benchmarking, evaluation and adjustment of requirements to reflect the performance of current tires in North America. This kind of periodic and systematic review of existing regulations has precedent in U.S. DOT regulations (e.g., the base course wear rate (BCWR) in UTQG), regulations of other U.S. agencies (such as EPA regulations governing emissions of hazardous air pollutants from manufacturing facilities under section 112 of the Clean Air Act) and voluntary programs (e.g., EPA's Energy Star program).

II. USTMA/TRAC Comments on Draft Framework

After review of the Draft Framework, USTMA/TRAC are concerned that the proposal overestimates the fuel savings and environmental benefits that would be achieved if the program was implemented, and grossly underestimates the impact on the tire market, tire availability, and consumer choice. In addition, the proposal's assessment of performance tradeoffs is flawed and does not recognize or illustrate the relationships that exist among tire efficiency, wet traction and treadwear performance in the consumer tire market. If implemented, the proposal would devastate the new tire market in California, eliminate consumer choice for replacement tires, threaten tire and vehicle safety by causing delays in tire purchases (e.g., a consumer driving on bald or damaged tires) and encourage inappropriate or unsafe tire purchases (e.g., unsafe used tires) and increase scrap tire generation in California.

USTMA and TRAC recommend that CEC conduct additional evaluation before moving forward with initiating formal rulemaking.

A. USTMA/TRAC recommendations

USTMA/TRAC recommend that the CEC undertake the following actions:

(1) Adjust the tire efficiency minimum performance standards to ensure no adverse impact on tire safety, tire tread life or the California waste tire program, as required by AB 844.

(2) Adopt an implementation schedule that accommodates product design cycles, manufacturing capability/capacity, vehicle and consumer needs and minimizes disruption to the consumer tire market.

(3) Coordinate with NHTSA and Transport Canada/Natural Resources Canada to develop a North American approach to tire consumer information and standards.

(4) Adjust the approach on wet traction in coordination with NHTSA to adopt the UNECE Regulation No. 117 test method instead of the adjusted UTQG wet traction method that NHTSA proposed in 2009 and finalized in 2010.

(5) Develop a representative sample of tires sold in California. While the tires tested in the CEC testing program represent several of the most popular vehicles in California, they still only represent 3% of tire size/speed rating combinations offered for sale in the state.

(6) Conduct on vehicle, on road treadwear testing to assess relationship between tire efficiency and treadwear and potential impact to scrap tire generation in the state.

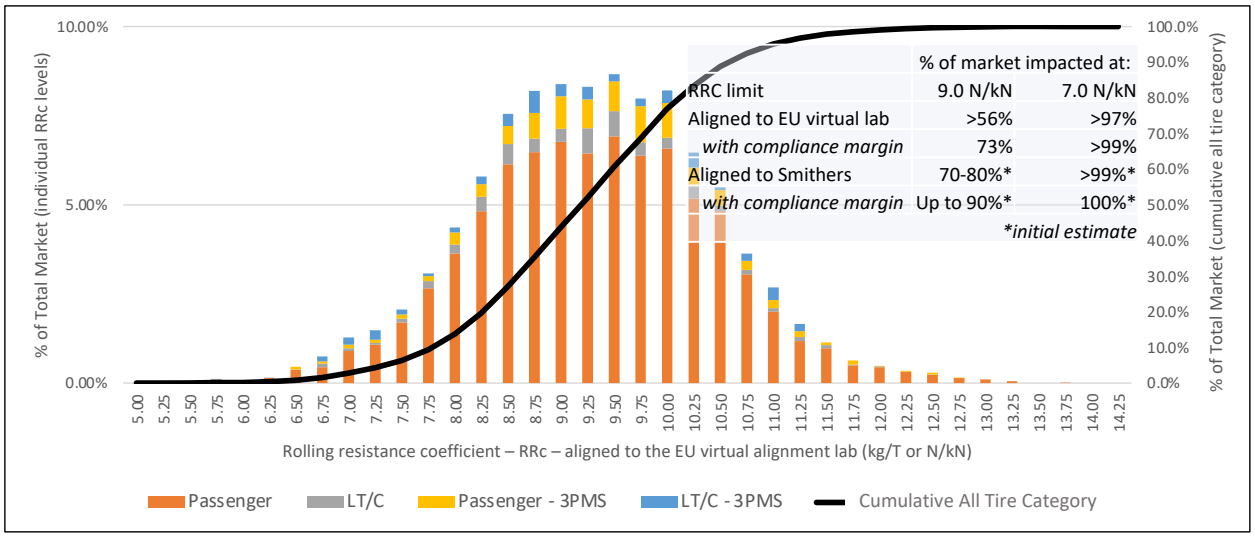
(7) Reassess the analyses regarding the energy use of tires, savings and costs using the additional information provided in these comments to provide more accurate estimates.

B. Draft Framework Significantly Underestimates the Impact of the Proposed Minimum Performance Standards on Replacement Tires in California

The Draft Framework proposes to set tire efficiency minimum performance standards for new tires sold in California. The proposal would set the minimum standard at 9.0 N/kN by 1/1/2026 and lower it to 7.0 N/kN by 1/1/28. According to USTMA data, these proposed limits would eliminate the vast majority of tires currently in the market by 2026 and nearly all tires currently in the market by 2028. Even if the proposal were technically feasible, the timeline proposed by CEC does not allow tire manufacturers sufficient time to design, industrialize and qualify the breadth of tires necessary to meet the needs of California motorists.

Figure 1 shows the U.S. distribution of tire rolling resistance coefficient (tire efficiency) based on a USTMA/TRAC database of over 8,500 rows of data on tires sold in the North American market and confirmed to be sold in the U.S.[4] Depending on how CEC defines laboratory alignment for purposes of the regulation and accounting for an adequate compliance margin in tire design and manufacturing, USTMA/TRAC estimate that between 73 and 90 percent of tires in the market today would not meet the minimum performance standard of 9.0 N/kN proposed to take effect 1/1/2026. By 2028, 99 to 100 percent of current tires would not meet the proposed 7.0 N/kN minimum performance standard.

[4] USTMA/TRAC will be submitting this database to CEC under separate cover for its use in conducting further analyses and requesting confidential treatment of the data.



`Figure 1 Illustration of Impact of Proposed CEC Limits (based on 8500+ datapoints)

USTMA/TRAC have shared their rolling resistance database with Natural Resources Canada and their consultant, Energy Solutions. Energy Solutions used this dataset, along with data developed by the Canadian government, to characterize the tire efficiency performance of tires in Canada's market in its report entitled *Benchmarks for Minimum Energy Performance Standard for Passenger Car and Light Duty Vehicle Replacement Tires –Updated June 2022.*[5] On page 13 of its report, Energy Solutions shows the distribution of rolling resistance coefficients by market segment in the dataset. A review of the first figure on page 13 shows that most tires would not meet a standard of 7.0 N/kN, and a significant percentage (visual estimate of ~50%) that would not meet a standard at 9.0 N/kN.[6]

[5] Lee, M. and Sivaraman, D. *Benchmarks for Minimum Energy Performance Standard for Passenger Car and Light Duty Vehicle Replacement Tires –Updated June 2022 – Support of Proposed Regulation.* Energy Solutions. June 28, 2022.
[6] *Id.*

USTMA/TRAC are concerned that these aggressive minimum performance standards and implementation schedule would lead to significant unintended consequences to consumers. Due to the short implementation time, consumer choice and tire availability would be significantly impacted, resulting in shortages of replacement tires for many vehicles. These shortages and limited availability could lead to safety risks due to customers driving on bald tires because they cannot obtain tires which are both compliant in California and appropriate for their vehicle. Consumers may also choose to install tires purchased outside of California, which would reduce the effectiveness of the program (e.g., reducing energy use), and would also reduce tax revenue and negatively impact jobs related to tire sales. Alternatively, consumers may install compliant tires within California that are not appropriate for their vehicle or in excluded categories (winter tires, retreaded, etc.), causing a safety risk. USTMA/TRAC are also concerned that consumers could resort to installing unsafe used tires as a local, unregulated alternative to limited new tire choices and availability.

C. Draft Framework Does Not Recognize Critical Performance Tradeoffs in Tire Design

Tire design is all about balance – when one tire performance characteristic is improved, others are negatively affected. While tire manufacturers strive to minimize these performance tradeoffs, they still exist – particularly when one characteristic is optimized. The Draft Framework does not recognize the critical performance tradeoffs among tire efficiency, wet traction and treadwear due to flawed analysis, which would lead to significant negative environmental and safety impacts. The Draft Framework and Tire Testing Summary evaluated

current products, with no performance limits on tire efficiency, wet traction or treadwear. Tires designed with the freedom this affords, are able to strike a balance of performance demanded by consumers. Design tradeoffs are less likely to be visible in a tire with well-balanced performance targets; performance tradeoffs will be most severe and visible where one design characteristic (e.g., tire efficiency) is optimized at the expense of others. Because it would set such aggressive minimum performance standards, in addition to reducing tire choice in California, the Draft Framework proposal would lead to a drastic decrease in average tire tread life for the limited tires that could meet the proposed standards, which would dramatically increase the number of scrap tires generated in the state and negatively affect the CalRecycle waste tire management program.

1. Draft Framework Assessment of Tire Efficiency vs. Treadwear is Flawed

The Draft Framework uses the lack of a strong correlation between tire efficiency and UTQG treadwear grades in its data set to conclude that a minimum efficiency standard would not result in a significant degradation in tire life. This conclusion is used to state that the proposed regulation would not result in increased costs, decreased safety, or result in an effect on the state's scrap tire program.

USTMA/TRAC disagrees with this conclusion. Using UTQG grades in this type of analysis indicates a misunderstanding of the treadwear grades. The UTQG program allows tires to be rated at any level the tire is capable of achieving. The treadwear grade is required to be expressed as a 2–3-digit number in multiples of 20 (49 CFR Part 575.104(d)(2)(i)), that is, a treadwear grade must be number that is a multiple of 20 between 20 and 980. If NHTSA were

to test a tire for compliance, the number NHTSA determines must be equal to or greater than the rating that the manufacturer assigns to the tire.

In other words, a manufacturer can choose any number that is equal to or less than the result they have determined the tire will achieve if tested. UTQG numbers are minimum reported results that the tires must meet. However, for a variety of reasons, the tires often exceed these results in the field.

How manufacturers make these decisions is proprietary information. From a consumer perspective, since the same approach was likely used consistently on a single manufacturer's tire lines, a consumer is unlikely to experience a situation where a 680-rated tire performs significantly worse than a 360-rated tire from the same manufacturer. However, two different manufacturers likely use different "rationale" so 680-rated tires from the two manufacturers would likely have noticeably different performance.

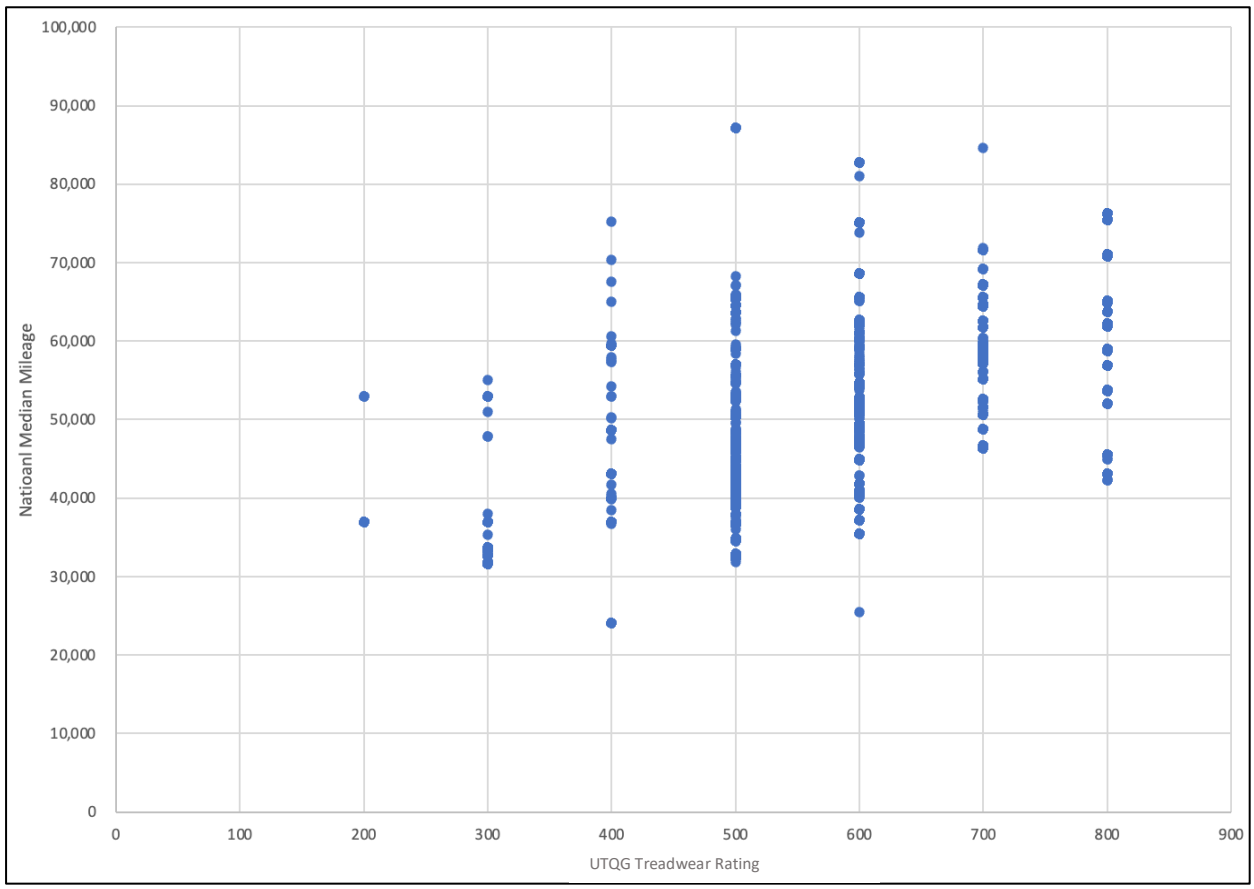
2. Evaluation of UTQG Treadwear Grades Compared to Actual Treadwear Performance Data

USTMA/TRAC recently learned that Discount Tire maintains a database of actual treadwear performance on the customer vehicles. Under the Treadwell program for customers who bought a new set of tires, Discount Tire measures the actual tread depth and odometer readings on customer vehicles at each tire rotation service and then makes accurate projections of the actual mileage (in thousands of miles) down to a tread depth of 2/32-inch. The median value was selected as the projected mileage. This database tracks the actual mileage for each

tire in the real world, reflecting the actual tire design and quality, vehicle load, road condition, driving habits, and all other factors impacting the tire treadwear.

It is the industry consensus that UTQG Treadwear rating is not a good indicator for actual treadwear of a tire. This claim is directly supported by the mileage data from Discount Tire. In a preliminary study, Discount Tire combined all raw data of different brands, tire lines, tire sizes, regions to develop a simple data series of each UTQG treadwear rating and associated projected mileages on customer vehicles. In Table 1, each dot represents the assigned UTQG rating and a projected mileage (in 000) on customer vehicles. This graph clearly shows the wide range of projected mileage for each UTQG rating, and the ranges overlap among different

Table 1 National Median Mileage vs. UTQG Treadwear Ratings (Source: Discount Tire Treadwell Program)



UTQG ratings. For example, tires with UTQG treadwear rating 400 have a wide range of 24,000 and 75,000 projected miles on customer vehicles.

USTMA/TRAC have begun working with Discount Tire to create a new database that combines USTMA/TRAC rolling resistance and wet traction data with Discount Tire's projected mileage data. Use of this database should provide a more realistic picture of the relationship between these parameters than use of UTQG treadwear data could. With more time, a more complete analysis would examine the real relationships of RRC, treadwear, and wet traction. USTMA/TRAC recommend such an analysis be conducted before conclusions are made concerning the effect of the proposed regulation on tire life, and the costs/effects of a reduction in average tire life. Any correlation between RRC and treadwear must be done using actual test performance data or on-road experience data, and not the UTQG rating. USTMA/TRAC recommend such an analysis be conducted before conclusions are made concerning the proposed regulation on tire life, and the costs/effects of a reduction in average tire life.

USTMA/TRAC would be willing to work to provide actual projected mileage information for the tires that were testing in the Tire Testing Summary if CEC would disclose the identities of the tires tested. This would allow a more appropriate evaluation of the relationships among rolling resistance, wet traction and treadwear for the tires included in the Tire Testing Summary.

3. Draft Framework Assessment of Tire Efficiency vs. Wet Traction is Flawed

As with UTQG treadwear grades, UTQG wet traction grades represent a minimum performance level that a tire is expected to achieve. An entire tire line may be marked with the same UTQG wet traction grade due to manufacturing variation, different performance expectations by tire size and other factors.

While USTMA/TRAC member companies will not make a tire with an unacceptable wet traction level, we cannot predict how other tire manufacturers will respond to a very aggressive minimum performance standard for tire efficiency. Minimizing the impact of more stringent tire efficiency levels on wet traction performance requires advanced technology and materials that some manufacturers do not leverage. A companion wet grip minimum performance standard and easily understandable consumer ratings are critical to ensure that tire and vehicle safety are not compromised at the expense of achieving greater tire efficiency. The vast majority of tires currently in the market are rated either A or AA for UTQG traction. With the minimum requirements for rolling resistance contemplated in the Draft Framework, a shift to tires being rated either B or even C for UTQG traction is conceivable. Thus, potentially reducing the wet traction capability across the entire market. We encourage CEC to work with NHTSA to adopt an appropriate wet traction minimum performance standard, preferably aligned with UN Regulation No. 117, that would ensure continued tire safety as tire efficiency measures adopted.

In November 2016, the World Forum for Harmonization of Vehicle Regulations (WP.29) approved an amendment to the Global Technical Regulation on Tyres (GTR No. 16) which

included amending the wet grip (traction) test to that in the most recent version of UN Regulation No. 117. The U.S. voted yes on this amendment, and therefore is under an obligation to begin the process to adopt the provisions in U.S. regulations.[7] Prior to the vote, the U.S. had asked for the inclusion of this sentence in the final report on the GTR:

> "Following additional technical evaluation of the adhesion performance on wet surfaces (section 3.12), a future additional category of use might be necessary for certain tyre types typical in the North American market."[8]

The U.S. (NHTSA) has completed its technical evaluation and is therefore in a position to move forward to adopt a wet traction minimum performance standard.

D. Draft Framework Does Not Evaluate a Representative Sample of Tires Sold in California

AB 844 directs CEC to "develop and adopt" "a database of the energy efficiency of a representative sample of replacement tires sold in the state."[9] The database of tire efficiency and wet grip values CEC has created does not meet this requirement. USTMA/TRAC recognize that CEC likely has time and budget limitations that would preclude acquiring a similar quantity of data, however a dataset based only on 149 tire models used on the most common vehicles registered in California does not illustrate the full breadth of the replacement tire market which will be impacted by this regulation and underestimates the devastating market disruption the regulation would cause.

[7] See paragraph 116 of the Report at https://unece.org/DAM/trans/doc/2016/wp29/ECE-TRANS-WP29-1126e.pdf
[8] See paragraph 44 in the Statement of Technical Rationale and Justification in the amendment at https://unece.org/fileadmin/DAM/trans/main/wp29wgs/wp29gen/wp29registry/ECE-TRANS-180a16am1e.pdf
[9] California Assembly Bill 844, Replacement Tire Efficiency Program, October 1, 2003. Section 25771(a).

A review of the tires included in the Tire Testing Summary indicates that only 2.8% of all active tire size/speed combinations sold in the United States by USTMA members were included, which represents about 24.3% of the passenger and LT tire volume shipped in the United States by USTMA members.[10] So, over 75% of the tires shipped in the United States (97% of tire sizes) are not represented in the Tire Testing Summary.

For Passenger OE tires, the market representation is even more limited. The Tire Testing Summary includes 12 unique OE tire size/speed rating combinations, which represents about 12.5% of total OE tires shipped in the United States and just 2.9% of the total OE tire size/speed rating combinations offered for sale in the United States.

For LT tires, the Tire Testing Summary dataset is even more limited. The Tire Testing Summary dataset includes just one LT OE tire (1.5% of sizes and 1.0% of the market) and four LT replacement tires (0.8% of sizes and 4.0% of the market). Table 2 shows the complete assessment of the representativeness of the Tire Testing Summary database.

Table 2 Assessment of Representativeness of Tire Testing Summary Database

	Passenger Replacement	Passenger OE	Passenger OE+Repl	LT Replacement	LT OE	LT OE + RT	TOTAL P/LT OE& RT
# Tire Testing Summary size/speed unique combinations	67	12	79	4	1	5	**84**
# U.S. size/speed unique combinations	2047	408	2455	512	66	578	**3033**
# Tire Testing Summary size/speed vs. # U.S. size/speed (%)	3.3%	2.9%	3.2%	0.8%	1.5%	0.9%	**2.8%**
Units associated with Tire Testing Summary tested size/speed as % of USTMA total 2022 units	31.6%	12.5%	28.0%	4.0%	1.0%	3.5%	**24.3%**

[10] USTMA Market Analysis Reporting System, 2023.

USTMA/TRAC recommend that CEC examine the sample NHTSA used when conducting its market evaluation on wet traction performance for further ideas on how to develop a more representative sample. Two tables illustrating the test selection process are included in slides 5 and 6 of the presentation the U.S. (NHTSA) gave at a meeting of the group working on amendments to the Tyre GTR.[11] The selection began looking at vehicle models, like CEC's selection, however NHTSA examined a wide variety of vehicle segments, identified typical vehicles for each segment, then selected a tire size suitable to those vehicles. NHTSA then augmented this selection by adding 8 tire sizes represented in a yearly list of top tire sizes by sales volume and 7 widest tires by aspect ratio. This test selection was for research on wet grip and may not be exactly how a test selection should be done for research on other parameters. However, it does demonstrate how a more representative sample can be developed for a smaller dataset (NHTSA tested 320 tires). At the time, USTMA worked with NHTSA to develop this approach. Similarly, USTMA/TRAC are willing to work with CEC to develop a test matrix that would yield a more representative sample for its purposes.

E. Draft Framework Overestimates the Contribution of Tire Efficiency to Vehicle Fuel Economy

In chapter 7, the Draft Framework provides estimates of the vehicle energy use associated with tires and develops calculations to show the anticipated energy use differences among tires with different tire efficiency performance. USTMA/TRAC have evaluated the

[11] Document TYREGTR-18-20 at https://wiki.unece.org/trans/TYREGTR+Session+18.

calculations presented in the report, and our preliminary findings indicate that calculations in the Draft Framework overstate the expected benefits by at least 1.8 times or 180%.

The overstatement is due to three main factors. First, the Draft Framework assumes an unrealistic tire load. Usually, a tire's load is less than the 80 percent assumed in the Draft Framework. For example, a tire's load on a Toyota Camry is most typically represented by 63 percent, which is a more realistic estimate for this type of calculation.

Second, a tire's efficiency improves as it wears, which is not taken into account in the Draft Framework formula. This tire performance phenomenon has been well studied. In fact, Underwriters Laboratories Inc. (UL) published a Product Category Rules (PCR) document to provide guidance for entities "developing Environmental Product Declarations (EPDs) for tires and to pinpoint the underlying requirements of a Life Cycle Assessment (LCA) pursuant to ISO standards that address appropriate environmental aspects of the tire life cycle"[12] ("PCR document"). In section 5.1, entitled "Use stage energy calculation guidelines,"[13] the PCR document contains a formula that, while similar to the formula produced in the Draft Framework, accounts for evolution in tire efficiency as a tire wears.

Third, as also discussed in the PCR document, the distance a vehicle travels without demand for engine torque should not be included in energy estimate calculations, since "a tire

[12] Product Category Rules (PCR) for preparing an Environmental Product Declaration (EPD) for the Product Category: Tires, UL 10006. Third Edition, Dated July 1, 2022. Available for download free of charge at https://www.ul.com/services/product-category-rules-pcrs.
[13] ***Id.*** at 52-53.

does not consume fuel when the engine does not require power."[14] This aspect is also reflected in the formula contained in section 5.1 of the PCR document. Due to copyright issues, we are not providing the PCR document calculation for energy consumption attributed to a tire. However, we invite CEC to access the PCR document at the website indicated in footnote 3 where it is available for download free of charge.

In Table 3 below, USTMA/TRAC followed both the formula produced in the Draft Framework and the UL PCR document to compare energy use estimates for a gasoline vehicle to illustrate the differences in the results. We used the Draft Document assumption of $4.60 per gallon for the gasoline cost. This illustration shows the significant difference between estimates produced. We recommend that the CEC use the formula in the PCR document to estimate fuel usage for all vehicle fuel types – gasoline, electricity, diesel and hydrogen – assessed in the Draft Report.

In addition, the Energy Solutions report, referenced above, also provides calculations of energy savings that are more realistic. We encourage CEC to evaluate this report as well as related to energy use and savings.

[14] ***Id.*** at 56.

Table 3 Comparison of Energy Use Calculations in Draft Framework with Calculations Using UL PCR Document

	Draft Framework	UL PCR Document	Difference	Draft Framework Overprediction
Assumptions	(curb weight would be 4,725 lbs)	(assuming 2018 Camry's curb weight + driver + passenger + cargo)	(Draft Framework - UL PCR Document)	/ UL PCR Document)
11 N/kN RRC tire				
force	5258.2 [N] *11/1000 [RRc] = 57.84 [N]	11/1000 [RRc] *0.4221 [t] *1000 [kg/t] *9.81 [m/s^2] *(1-0.2/2) = 40.99 [N]		
energy	57.84 [N] *72,420,480 [m] /0.27/1E6 = 15,514 [MJ]	11 [kg/t] *(1-.2/2)*0.4221 [t] *72420 [km] *9.81 [m/s^2] *1/0.27*0.8/1000 = 8796 [MJ]	6718	1.76
gallons of fuel	15,514 [MJ] /120.276 [MJ/gallon] *4 [tires] = 515.9 [gallons]	8796 [MJ] /120.276 [MJ/gallon] *4 [tires] = 292.5 [gallons]	223.4	1.76
fuel cost	515.9 [gallons] *4.60 [$/gallon] = $2,373	292.5 [gallons]*4.60 [$/gallon] = $1,346	1028	1.76
9 N/kN RRC tire				
force	5258.2 [N] *9/1000 [RRc] = 47.32 [N]	9/1000 [RRc] *0.4221 [t] *1000 [kg/t] *9.81 [m/s^2] *(1-0.2/2) =33.54 [N]		
energy	47.32 [N] * 72,420,480 [m] /0.27/1E6=12,692 [MJ]	9 [kg/t] *(1-.2/2)*0.4221 [t] *72420 [km] *9.81 [m/s^2] *1/0.27*0.8/1000 = 7197 [MJ]	5495	1.76
gallons of fuel	12,692 [MJ] /120.276 [MJ/gallon] *4 [tires] =422.0 [gallons]	7197 [MJ] /120.276 [MJ/gallon] *4 [tires] =239.3 [gallons]	182.7	1.76
fuel cost	[gallons] *4.60 [$/gallon] = $1,941	239.3 [gallons] *4.60 [$/gallon] = $1,101	840	1.76
7 N/kN RRC tire				
force	5258.2 [N] *7/1000 [RRc] = 36.81 [N]	7/1000 [RRc] *0.4221 [t] *1000 [kg/t] *9.81 [m/s^2] *(1-0.2/2) = 26.09 [N]		
energy	36.81 [N] * 72,420,480 [m] /0.27/1E6=9,873 [MJ]	7 [kg/t] *(1-.2/2)*0.4221 [t] *72420 [km] *9.81 [m/s^2] *1/0.27*0.8/1000 = 5597 [MJ]	4276	1.76
gallons of fuel	9,873 [MJ] /120.276 [MJ/gallon] *4 [tires] =328 [gallons]	5597 [MJ] /120.276 [MJ/gallon] *4 [tires] =186.1 [gallons]	141.9	1.76
fuel cost	328 [gallons] *4.60 [$/gallon] = $1,509	186.1 [gallons] *4.60 [$/gallon] = $856	653	1.76

F. Draft Framework Overestimates Benefits and Underestimates Costs Associated with the Proposal

1. Lifetime Costs

USTMA/TRAC appreciate the cost-effectiveness calculations in the Draft Framework and agree with the lifetime cost categories contemplated, namely "fuel cost, equipment/tire purchase costs, installation cost, maintenance costs, and end-of-life costs."[15] Due to the flawed tradeoffs analysis, discussed above, that comes to the erroneous conclusion that there would be no impact to average tire tread life or scrap tire generation, the assessment of costs does not include critical evaluation of consumers needing to buy tires much more frequently and the environmental costs associated with greater scrap tire generation.

[15] Draft Framework at 73.

2. Draft Framework Should Include Additional Cost Categories and Effects on Other Related Industries

USTMA/TRAC advocates that further analysis include additional cost categories, including those related to the disruption in the tire marketplace caused by this regulation. For example, the Draft Framework should include costs associated with tire shortages, lack of availability of compliant tires for some vehicles and societal costs associated with safety risks due to consumers delaying tire purchases, installing tires inappropriate for their vehicles and the increased use of unsafe used tires. These analyses should include impacts to consumers, road safety and tire retail businesses.

The Draft Framework does not take into account costs that would be borne by other entities, such as tire retailers, original equipment ("OE") vehicle manufacturers, automotive service centers and new car dealers. While the scope of AB 844 is replacement tires, original OE manufacturers would also be affected by this proposal. USTMA/TRAC estimates and the Tire Testing Summary conducted on behalf of CEC indicates that a significant percent of OE tires would not meet the proposed minimum performance standards, including OE tires for many electric vehicles.

In particular, of the 14 OE tests included in the Tire Testing Summary, while 12 would meet a standard set at 9.0 N/kN (86%), only 5 would meet a standard set at 7.0 N/kN (36%) and only 2 would meet a 7.0 N/kN standard with an adequate compliance margin (14%). The larger, more representative USTMA/TRAC dataset includes 1,713 passenger OE tires and 26 LT OE tires. Of the 1,713 passenger OE tires, 895 have RRC values equal to or below 9.0 N/kN (52.2%),

so almost half of the OE passenger tires would not meet a 9.0 N/kN standard. With an adequate compliance margin, the percentage of OE passenger tires affected would most likely be higher. In the USTMA/TRAC dataset, only 43 of the 1,731 OE passenger tires would meet a 7.0 N/kN standard (2.5%). Again, with an adequate compliance margin, the impact would likely be even more severe.

While the proposal would not impact tires installed as OE on new vehicles, it would restrict those same tires from being purchased by a consumer for installation as a replacement tire. OE vehicle manufacturers and tire manufacturers depend on the replacement market to sell excess inventory of OE tires. Also, new car dealers sell OE tires as replacement fitments to vehicle owners who wish to purchase the OE tires that came on their vehicle. This practice is common particularly among high performance and sport vehicle owners.

USTMA continues to evaluate the potential effectiveness of this proposal on OE tires for electric vehicles and will provide additional information to CEC in the future.

3. Draft Framework Should Evaluate Costs on a Consistent Basis, Adjusting for Inflation

The Draft Report should evaluate costs using costs adjusted for inflation to the current year. Instead, the Draft Report mixes and matches cost data from various sources and years, sometimes adjusted for inflation and sometimes not, which has the effect of underestimating costs and provides a skewed and scientifically flawed assessment of the costs associated with this proposal.

4. Draft Framework Vastly Underestimates Compliance Costs

The Draft Framework relies solely on the cost estimates included in the 2009 NHTSA notice of proposed rulemaking to establish a consumer rating system for tires ("NHTSA NPRM"). This NHTSA NPRM did not include any cost estimates associated with research and development, tire design, manufacturing changes, etc., since the proposal did not set out any minimum performance standards. Even so, NHTSA underestimated the costs associated with its consumer information proposal, as the Rubber Manufacturers Association ("RMA" – USTMA's former name) outlined in detailed comments and filed during the 2009 comment period.[16] At the time, the report indicates that RMA estimates for its then 8 members for "testing, reporting and labels… exceed[ed] NHTSA's estimates by a factor of roughly 3 to 6."[17]

The Draft Framework proposes a program far beyond the scope of the 2009 NHTSA NPRM and would set very aggressive tire efficiency minimum performance standards that would require the redesign of nearly all tires currently on the market. Testing costs would be dwarfed by the astronomical costs that would be imposed on the tire manufacturing industry. The Draft Framework seems to make the assumption, because a small number of tires can achieve very low rolling resistance, all tires could be manufactured to meet that same very low rolling resistance target without significant redesign, validation, manufacturing changes and other significant costs. This could not be further from the truth. As USTMA/TRAC have explained, tire design is all about balance, and achieving that right balance is critical for each

[16] Environomics Incorporated. Comments on the Preliminary Regulatory Impact Analysis for the Notice of Proposed Rulemaking Replacement Tire Consumer Information Program (2009). Available at https://downloads.regulations.gov/NHTSA-2008-0121-0036/attachment_9.pdf.
[17] Environomics at 2.

vehicle application and driving need. Due the short comment period, USTMA/TRAC have not finished collecting cost data that would illustrate the profound effect the Draft Framework would have on tire manufacturers by causing the redesign of nearly all tires currently on the market. However, we are collecting and aggregating this data and will submit it to the docket at a later date.

Finally, the Draft Framework mentions that "a significant number of tires are tested to the required parameters as a baseline because of international regulations such as those in effect in the European Union."[18] To clarify, the vast majority of tires that are sold in the U.S. and Canada are not sold in Europe and therefore do not need to be tested to UNECE Regulation No. 117 tire rolling resistance minimum performance standards or rated according to the European Commission rating system for tires. As a reminder, as USTMA presented during the February 2021 and February 2023 CEC Staff Workshops, the U.S. and European tire markets are very different. As seen in Figure 2, the U.S. passenger tire market is dominated by all-season tires at 83.7 % of the market. In California, this number is likely higher, since winter tires (tires with 3-peak mountain snowflake or "3PMS" markings) are not common purchases in the state. In contrast, the European market is composed primarily of summer and winter tires. The North American all-season tire is not a significant product segment in Europe. While some mention in trade press or industry sources may be made of "European all-season" tires, these are not the same products as North American all-season tires. European all-season tires contain the 3-Peak

[18] Draft Framework at 79.

Mountain Snowflake (3PMS) symbol and if they are sold in North America, they are included in the 3PMS category in Figure 2 and referred to as "all-weather" tires.

G. The Draft Framework Proposes a Rating System that Would Not Benefit Consumers

1. USTMA/TRAC Position on Consumer Ratings

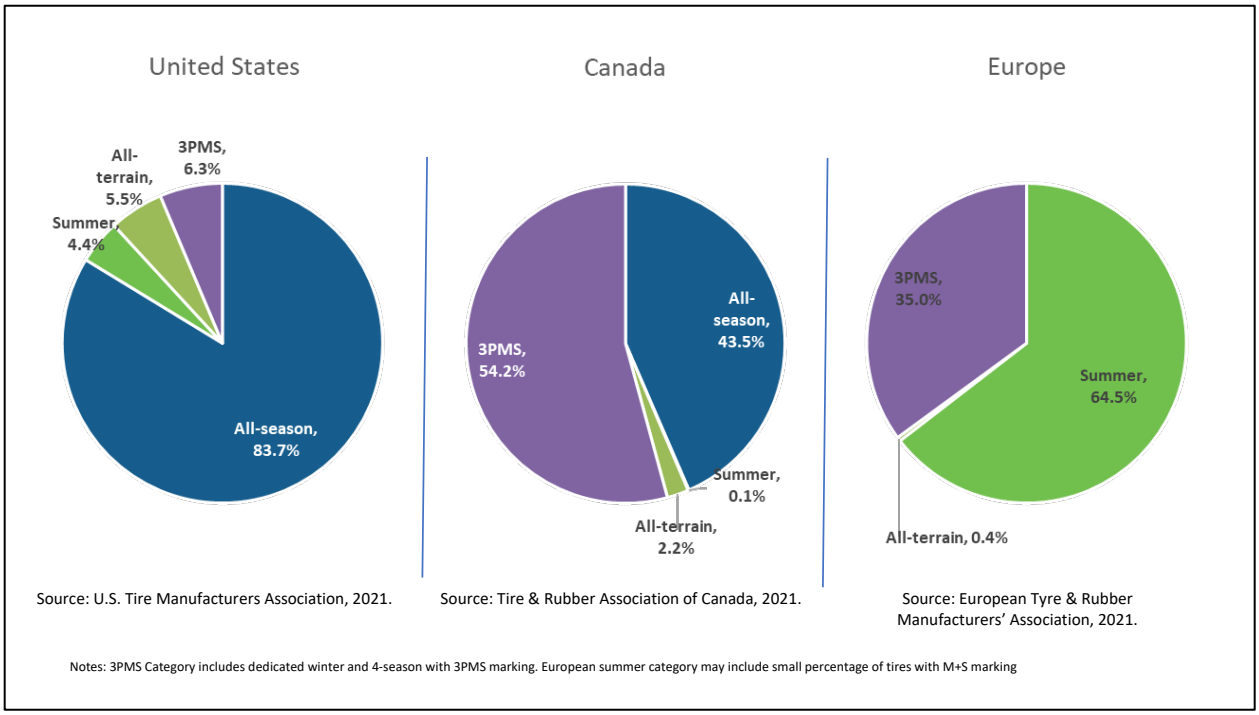


Figure 2 Comparison of United States, Canadian and European Passenger Car Tire Markets

We support developing regulations to mandate tire consumer information at point of sale and believe that tire consumer ratings should:

- Be useful to consumers;
- Give consumers meaningful choices for their vehicles;
- Create rating bins that are at least as wide as long-term seasonal and lab variability of the test method, with a further awareness of manufacturing variability;
- Allow for adequate compliance assurance and flexibility;

- Allow for future product improvement and differentiation; and
- Communicate clearly to consumers.

Further, USTMA/TRAC believe that ratings should provide levels of capability to consumers without implying negative assessment of lower rated tires. USTMA and TRAC support tire ratings in three categories to meet the criteria outlined above. Regulators could consider options including “Good-Better-Best”, “Bronze-Silver-Gold” or another simple, sustainable system that conveys levels of capability without negative connotation to the lowest rating. “Good-Better-Best” is consistent with how tires and other consumer products are rated in the marketplace today. “Bronze-Silver-Gold” is used for other auto parts (e.g., batteries), which offers the potential for expansion with other precious metals (e.g., “Platinum”) as the need for additional levels arises in the future. To maximize effectiveness and minimize confusion by consumers, the rating system adopted should be consistent across North America.

USTMA/TRAC recommend that CEC conduct consumer testing to ensure that any proposed rating approaches meets these criteria described above, including testing whether ratings provide levels of capability to consumers without implying negative assessment of lower rated tires. We also recommend that CEC test the effectiveness of any candidate rating system to validate whether a consumer would in fact have a choice across ratings of appropriate tires, using a wide variety of vehicles to test the rating system. We welcome the opportunity to discuss this concept with CEC staff.

2. The Draft Framework Rating System Would Not Give Consumers Choices When Purchasing Tires

The Draft Framework correctly indicates that "there is a lack of readily available information,"[19] yet unfortunately it will not remedy this situation. The Draft Framework lays out a five-bin rating system that is similar to the rating system established in the European Commission. According to the Draft Framework, the lower two rating bins would be eliminated by 2026. An additional rating bin would be eliminated by 2028, along with most of a fourth bin. So, by 2028, the rating system would be left with a bin and a half of potential tire efficiency values and would leave consumers with no real choice within three years of the system's proposed adoption.

3. USTMA/TRAC Support 3-Bin Rating System for Tire Efficiency

Consistent with the USTMA/TRAC principles for an effective rating system outlined above, we recommend a 4-bin system that would include three ratings that can be adjusted to add a higher performing bin in the future. For example, a rating system with 4 bins could contain gold, silver and bronze rating bins and one unrated category that would be eliminated once a minimum performance standard of 10.5 N/kN takes effect. An example of how this rating system could work is provided in Table 4 below.

Table 4 Example of Replacement Tire Efficiency Ratings

Tire Efficiency Level	Rating
RRC ≤ 7.7 N/kN	Gold
RRC ≤ 9.0 N/kN	Silver
RRC ≤ 10.5 N/kN	Bronze
RRC greater than 10.5 N/kN	Not rated

[19] Draft Framework at 38.

In this illustration, the "metals" rating system would allow for an additional, higher performing "platinum" bin to be created as the highest performing bin becomes more populated. In the EU labeling regulations for example, adjusting the rating bins is considered if the highest performing bins (e.g., the top three bins) are highly populated (e.g., they contain 70% of the market). In addition, the width of a rating bin should be set based on the test method's robustness in terms of accuracy and variability and only adjusted should the test method's robustness improve.

4. The Draft Framework Would Create Confusing Wet Traction Ratings that Could Lead to Inappropriate Tire Selections by Consumers

This rating system also would not benefit consumers because it would create a confusing, dueling wet traction rating system similar to, but not the same at the NHTSA UTQG wet traction grading system. As a consequence, a tire would have one wet traction grade assigned based on the UTQG and another grade assigned based on the CEC program, both using the same rating nomenclature (AA-A-B-C). This approach would confuse consumers and cause them not to use the wet traction ratings at all, which could lead to a consumer making an inappropriate choice for their driving needs and/or vehicle when only considering tire efficiency.

The Draft Framework proposes to adopt the wet traction testing procedure adopted by NHTSA in the partially established federal Tire Fuel Efficiency Consumer Information Program.[20] This procedure is the existing UTQG traction test, modified to collect data on peak coefficient of friction. The staff document recommends the use of this test procedure to create consistent

[20] See, 49 CFR Part 575.106(g).

requirements in federal and California regulations. There is no indication that CEC staff considered proposing the wet traction (grip) test in UN Regulation 117, which was designed to measure peak coefficient of friction and which USTMA/TRAC believe should be used in any California regulation as it is used in all rating systems in existence worldwide.

First, the federal regulation is not finalized, and there is no indication of how NHTSA would use this test method in a rating, so ratings harmonization is not guaranteed by the use of the same test method. Second, there is no guarantee that adopting the test method currently specified for the federal Tire Fuel Efficiency program would harmonize a California regulation with a (hypothetical) future federal regulation. In the final rule where the proposed method was specified by the federal government, the federal government indicated it would continue to research other test methods to improve the regulation. Since then, the federal government has conducted research and testing on UN Regulation 117, which is available in the NHTSA docket[21] and has been presented to UNECE meetings during the development of UNECE Global Technical Regulation No. 16 (Tyres).

The Fixing America's Surface Transportation Act ("FAST Act")[22] mandate for a minimum traction standard specifies that standard must be based on peak traction consistent with other global test methods. Since 2012, NHTSA appropriations bills no longer include language

[21] Mohamed, H., Versailles, M., Yates, K. and Seymour, B. Testing to benchmark the wet traction performance of tire models for sale in the U.S. National Highway Traffic Safety Administration. The 18th meeting of the Informal Working Group on Tyre GTR. Ottawa, Ontario, Canada, June 11, 2018. Accessible at: https://wiki.unece.org/download/attachments/58525026/TYREGTR-18-20%20Testing%20to%20benchmark%20the%20wet%20traction%20performance%20_%20v2%20%282%29.pptx?api=v2

[22] Fixing America's Surface Transportation Act of 2015, Public Law No. 114-94, December 4, 2015)

restricting the agency from making changes to the UTQG. Given this and given that the percentage of the on-road vehicle fleet with anti-lock brakes is even higher than it was a decade-plus ago when NHTSA looked to add peak to the UTQG test, it is not unreasonable to assume that NHTSA will at least request comment on replacing the UTQG traction test with the UN Regulation wet grip test. As noted earlier in this document, the U.S.' yes vote when the wet grip (traction) test was amended in the GTR on Tyres in fact obligates NHTSA to propose the UN Regulation wet grip test or explain why it no longer believes it to be appropriate. If NHTSA were to propose and adopt the UN Regulation test method, the California requirement would not be aligned with any other rating system. We encourage CEC to dialogue with NHTSA about this crucial test method in order to align with NHTSA's current thinking on the most appropriate test to assess wet grip performance.

If CEC agrees to consider the wet traction (grip) test in UN Regulation 117, USTMA/TRAC recommend that CEC uses the same rating approach as for tire efficiency (e.g., gold-silver-bronze). As discussed above, NHTSA has recognized that the North American tire market is much different than the summer/winter tire market in Europe and that conducting an assessment of the North American tire market is necessary to define minimum performance standards and rating bin boundaries. USTMA/TRAC is considering how to assign bin boundaries for wet traction in North America and will follow up with CEC with additional proposals for consideration.

H. USTMA/TRAC Concerns Regarding Compliance Aspects of the Framework Document

1. USTMA/TRAC Support Self-Certification of Compliance With a Minimum Standard and Rating System

USTMA/TRAC support a self-certification requirement as described on page 8 of the Framework Document; however, the draft regulatory text does not align with this statement. USTMA recommends that draft regulatory text contained in The Framework Document be revised to include requirements consistent with the self-certification and CEC staff recommendations in the Framework Document.

The Framework Document states:

> Staff proposes allowing manufacturers to self-certify tire rolling resistance and peak wet traction ratings for their tires instead of submitting actual test measurements. Staff's proposed self-certification approach would not require manufacturers to base certifications and ratings on any particular tests, any number of specified tests, or any tests at all. The test procedures in the regulations would be standards that the CEC will use for compliance testing. A manufacturer would be required to exercise due care in certifying its tires. This framework would make reporting under the CEC's program like reporting under the pending federal Tire Fuel Efficiency Consumer Information Program.[23]

The self-certification compliance system mandated in NHTSA safety and consumer information regulations efficiently ensures compliance with NHTSA regulations while minimizing costs to manufacturers and other regulated entities. If NHTSA finds, through auditing, a concern about compliance, NHTSA can request a tire manufacturer to submit test data voluntarily or order the submission of data to enforce the rule. Requiring tire test data or calculated values to be submitted to NHTSA to ensure compliance is overly broad, costly and unnecessary to meet the

[23] Framework Document at page 8.

requirements of the EISA or ensure compliance. Furthermore, reporting this type of information would cause tire manufacturers to suffer competitive harm because a company's approach to risk would be accessible by competitors. The tire industry has a long history of compliance with all tire safety and consumer information regulations. In fact, tire manufacturers routinely voluntarily self-disclose a non-compliance to NHTSA and work cooperatively with the Agency to remedy the situation.

First, sec 3302 includes the following:

> "Declared Energy Efficiency Rating Value" and "The Energy Performance Rating" means the mean rolling resistance coefficient plus two standard deviations calculated from the test results of a sample of three tires with an identical SKU using the ISO 28580:2009(E) test method.[24]

Defining a rating specifying a test method, sample size and range of deviation is inconsistent with self-certification for both a minimum performance standard and a rating. These requirements should only be in the test method that "CEC will use for compliance testing" as stated in the quote in the first paragraph of this section.

With regard to the rating, Sec 3306 requires manufacturers to submit a statement. Sec 3308 then specifies that the statement is reviewed, and the Executive Director assigns a "replacement tire rating" as specified in Table 1, which is titled "Replacement Tire Energy Efficiency Rating Values." Again, this process is inconsistent with the Staff's stated intent to have a self-certification system for both the rating and performance standard. While the terms

[24] USTMA/TRAC note that the first of these terms is used only in the definition of "material change" and in Table 1, however there were other terms that seem to reflect what is intended and our comment reflects these other terms also. We did not locate the second term; therefore we assume it is intended to reflect "minimum energy performance standard" and our comment reflects this.

in Sec 3306 are not defined, USTMA/TRAC assume that the requirement to report a "rolling resistance rating" is meant to mean the defined term "declared energy efficiency rating value" discussed above as there would otherwise not be a need for the Executive Director to assign a rating. USTMA/TRAC support a requirement that does not specify the test method within the definition of a rating and requires the manufacturer to self-certify for each tire SKU a rating according to a table similar to Table 1 but consistent with the manufacturer reporting a minimum rating. Similarly, USTMA/TRAC would support a requirement to self-certify for each tire SKU a minimum "wet traction rating" using a similar table for the wet grip index in UN Regulation 117, and the "treadwear rating reported to NHTSA under 49 CFR Part 575.104." USTMA/TRAC oppose reporting measured or calculated test values.

Under this system, CEC would audit a sample of tire SKUs to ensure compliance. CEC would notify a tire manufacturer of an alleged non-compliance if an audited tire was rated lower, based on CEC's testing, than the rating assigned by the manufacturer. CEC would then seek additional information and test data from the tire manufacturer during the compliance investigation. If ultimately the tire manufacturer is found to be in non-compliance, CEC could assess penalties per the applicable provisions.

2. <u>The Framework Document Should Allow for Adequate Compliance Margins</u>

The Framework Document should allow a manufacturer to assign a rating taking into account testing and manufacturing variability to ensure compliance, often referred to as a "compliance margin." While each tire manufacturer assesses its own necessary compliance margin in a self-certification system, USTMA/TRAC have adopted 0.5 N/kN as an estimated

compliance margin for purposes of estimating market impact of potential performance standards and rating systems.

The Draft Framework provides in Section 3306 (b)(2)(C) that

For any numerical value required that is produced by calculation from measured numerical results, the reported value shall be no higher than the exact result of the calculation where the consumer would prefer a high number, and no lower than the exact result of the calculation where the consumer would prefer a low number, unless different specific instructions are specified in the test method.[25]

While under a self-certification system, reporting numerical values would not be necessary or required as discussed above, it is important that CEC recognize the vital need for adequate compliance margins so manufacturers can ensure compliance should their products be the subject of a compliance audit. USTMA agrees that a manufacturer should not be able to rate a tire higher than its tested performance, it should be able to assign a rating appropriate for the tire considering a compliance margin.

3. <u>The Framework Document Should Allow Sufficient Lead Time to Meet New Requirements</u>

The proposed regulatory text in the Framework Document includes three effective dates:

- December 31, 2024 – Date by which manufacturers must submit required statements for all tires sold in California.
- January 1, 2026 – Date after which no replacement tire may be sold in California if the RRC is greater than 9.0 N/kN.
- January 1, 2028 – Date after which no replacement tire may be sold in California if the RRC is greater than 7.0 N/kN.

[25] Draft Framework at page A-13.

With the Framework Document released in February 2023, the proposed dates would provide manufacturers less than 2 years to rate all replacement tires; another year to redesign all tires with an RRC greater than 9.9 N/kN; and a further two years to redesign all tires with an RRC greater than 7.0 N/kN. Several factors make this lead time impractical.

First, the Framework Document is not an official proposal, much less a final regulation that manufacturers can rely on to begin research, development and planning.

Second, the Framework Document does not provide information regarding how CEC Staff propose to specify a reference laboratory for the rolling resistance test.

Third, the draft regulatory text implies that specific testing is required to comply with the proposed regulation. Traditionally, interpolation of test results from available data is permissible in a self-certification system. If this is not allowed, significantly more additional testing of all existing tires will be required.

Fourth, including a wet traction rating on peak coefficient of friction in addition to the current slide coefficient of friction-based wet traction rating system under UTQG, will require additional testing of existing tires, since tire manufacturers do not have peak data available on sufficient existing tires to interpolate wet traction ratings.

Fifth, the proposed dates are based on tire sale, which will require either testing of tires which may already be in stock at retail establishments, or a costly and time-consuming removal of all existing tires from inventory and transfer to retail facilities outside of California, or in the worst case disposed of.

USTMA/TRAC recommend that the compliance date for manufacturer reporting for consumer ratings and minimum standards be based on tire manufacture date rather than any other criteria. Tire manufacture dates are molded on the sidewall of each tire per federal regulation, and therefore it would be clear whether the new regulation did or did not apply to a tire.

For ratings, USTMA/TRAC recommend that the requirements apply 36 months after the effective date of a final regulation, including specification of alignment procedures. For tires introduced into the market after the implementation date of the rating requirement, USTMA/TRAC recommend that CEC allow tire manufacturers six months after the introduction of a new tire in a new tire line to begin reporting tire ratings to CEC and tire retailers, consistent with the current federal UTQG regulations. If the final regulation requires reporting of tolerance-based test values, USTMA/TRAC recommend that the 24-month period be increased to 60 months to provide sufficient time to retest each SKU.

USTMA/TRAC recommend that the initial minimum standard be set at 10.5 N/kN and that the requirements apply 36 months from the effective date of a final regulation. USTMA/TRAC would support a second phase limit applied at a later date. However, we recommend that CEC set an initial limit and evaluate its effectiveness prior to setting a second phase standard. We will continue to evaluate the potential for a secondary standard as well and follow up with CEC after further study.

Since a rolling resistance minimum performance standard was included in UN Regulation No. 117 in October 2011, European regulators have been successful in progressing

tire fuel efficiency improvement on an annual rate of ~0.25%, which allowed for reasonable compromise for other aspects of performance. CEC is proposing a ~1% per year improvement in RR, which is 4 times more aggressive than Europe. In Europe, stage 1 (by November 2014) included a limit for C1 tires (the category in which the tires CEC has indicated they intend to address) of 12 N/kN. Stage 2 included a limit of 10.5 N/kN by November 2018. Recently adopted amendments to the regulation added a stage 3 which requires most C1 tires (passenger car tires) to meet a limit of 9.0 N/kN by 7 July 2026,[26] however for the first time the UN Regulation also added categories of tires subject to a less stringent limit of 10.0 N/kN. Prior to stage 3, a market evaluation was conducted to assess the readiness and ability of the tire market to continue improving rolling resistance. The different performance levels in stage 3 is an acknowledgement that some market segments were more technology limited and unable to continue these performance breakthroughs for fuel efficiency. A similar evaluation in California could provide the data needed to determine if, and when, further improvements are possible.

4. Compliance Effective Date Should be Based on Manufacture Date, Consistent with NHTSA Regulations

The Draft Framework regulatory text would apply to tires offered for sale in California by each specified date. On the contrary, NHTSA regulations all refer to tires "produced after" a specified date. We recommend that CEC adopt this approach instead of referring to the date a tire is offered for sale. Tire manufacture date is indicated on the sidewall of a tire in the DOT tire identification number (TIN), which would facilitate compliance assurance. As well, this approach works well to minimize market disruption caused by needing to recall products

[26] Document ECE/TRANS/WP.29/2023/8 adopted at the March 2023 session of WP.29.

already in the market and reduces associated costs and burdens on tire manufacturers and retailers.

5. The Statement of Information Requirements in the Regulatory Text Are Overly Burdensome, Request Unnecessary Information, and Contain Proprietary Information

The list of tire information in the Statement of Information Requirements in Section 3306(e) and (f) include information that is not necessary for the adoption of this regulation and would pose significant burdens on tire manufacturers. We welcome a dialogue on the information necessary for this regulation. For example, requiring information on each individual SKU poses an extreme burden on tire manufacturers, especially when requiring this information to be provided by plant and week of manufacture. In addition, production information, including manufacture dates and plants for individual SKUs would expose proprietary information to competitors and could harm the competitiveness of the tire manufacturing industry. Section 3306(f) pertaining to limited production tires also would require a manufacturer to report annual production by plant for a tire SKU, which is highly protected proprietary information. Adopting a self-certification approach negates the need to for this information to be sought and provided, since a tire manufacturer would self-certify that its tires met the requirements, including to documentation to support a claim of a limited production exception. USTMA/TRAC recommend that Section 3306(f) be eliminated, since limited production tires are excluded from the scope of the regulation. Table 4 below shows USTMA/TRAC's full recommendations for the fields to be included and eliminated from reporting requirements in Section 3306(e).

Table 5 List of Recommended Fields to be Included and Excluded in Section 3306(e)

Include the following reporting fields:	Eliminate the following reporting fields:
Brand name Model name Tire service description [includes tire size (section width, designation, aspect ratio, rim diameter), speed symbol, load index] Tire efficiency rating Wet traction rating (based on UN Reg. No. 117) UTQGS Treadwear rating	OEM Fitment SKU Number Suggested retail price Warranty Special feature (runflat, color tread) – *Runflat designation would be included in service description Weight Overall diameter Tread depth Sidewall Max Load (lbs) Sidewall Max Pressure (psi) Load range Manufacture date Manufacturer facility UTQGS traction rating

I. The Draft Framework Would Create an Unequal Playing Field and Favors Manufacturers that Do Not Comply

The Draft Framework indicates that "staff assumes a compliance rate of 85 percent."[27] The Draft Framework goes on to say that CEC will "monitor the market and conduct random sampling" to try to increase compliance rates. If 15% of the market does not comply with this aggressive regulation, this would create an unfair market advantage for non-compliant companies. As a consequence, the market share of those companies would increase dramatically. USTMA member companies represent around 82% of the overall tire market in the U.S. Assuming our member companies comply with a future regulation, their offshore competitors without a U.S. footprint would be in a position to gain significant market share.

[27] Draft Framework at page 79.

These offshore companies are more difficult to contact to bring enforcement actions and would harm companies with manufacturing in the U.S.

J. The Scope of Tires Included in the Regulation Should be Consistent with Federal Regulations

In the Draft Framework, the scope (Sec. 3301) states the regulation applies "to any new tire.... that is designed to replace a tire sold with a [passenger car or light duty truck]. The scope then includes a list of tires that are excluded. In the definition section (Sec. 3303), the terms "replacement tire," "passenger car" and "light duty truck" are defined.

USTMA/TRAC disagree with basing the scope of the regulation on tires for motor vehicle types defined differently than those vehicle types are defined in federal law. This could result in a tire being classified differently, and therefore required to comply with different requirements. USTMA/TRAC recommend referencing federal definitions where they exist. The regulation does not apply to motor vehicles, and therefore should not reference vehicle types. The term "passenger car" and "truck" are defined in federal law based on first, the intended use (passenger-carrying vs property-carrying), and second, for passenger cars, based on the maximum number of passengers. The proposed CEC definitions use a different number for passenger capacity and include a gross vehicle weight limit of 10,000 pounds. USTMA/TRAC recommend that the scope of the regulations should be the same as the scope of the NHTSA consumer information program in 49 CFR 575.106, which applies to "passenger car tires." Passenger car tires are appropriate fitments for passenger cars and consumer light trucks. On the contrary, light truck tires or "LT tires" are typically fitments for larger light trucks used as work and commercial vehicles. LT tires are designed to carry heavier loads and perform heavier

duty tasks. This consumer-focused program would not be suitable for tires sold for these work and commercial vehicles. Likewise, in Europe, passenger car tires are categorized as C1 tires, whereas LT tires fall under the C2 and C3 categories, keeping in mind that LT tires are not common in European market because larger light trucks are not popular in Europe. The commercial vehicle fitments in Europe typically are C-type tires, which are less common in North America.

USTMA/TRAC also recommend that CEC adopt the federal definition of "replacement tire" in 49 CFR 575.106, which reads

> Replacement tire means any passenger car tire offered for sale to consumers, other than a tire sold as original equipment on a new vehicle.

This addresses language in the existing scope excluding wholesale, and the scope could simply refer to replacement tires sold in California. The definition of "replacement tire" does not need to include a list of excluded tires when those exclusions are in the Scope of the regulation.

K. The Draft Framework Should Adopt the European Alignment Procedure for Rolling Resistance Testing

USTMA/TRAC support the designation of ISO 28580 as the test procedure for use in this regulation. However, USTMA/TRAC disagree with some of the elements of how this test procedure is outlined in the draft regulatory text in the Framework Document. USTMA/TRAC stress that regulations setting performance standards or creating rating systems for tire efficiency must establish identify alignment procedures, including identifying a reference laboratory. The consequences of not establishing a reference laboratory can be significant, since rolling resistance measurements can vary by 1 N/kN or more for the same tire tested on

different machines, and can have the unintended consequence of creating a regulation that is more stringent than intended.

First, the ISO 28580 test procedure, contains one component that is absent in all the earlier test procedures for rolling resistance. ISO 28580 contains a machine alignment method, which makes it the strongest candidate for use in regulations. It is important to remember, however, that this machine alignment method reduces uncertainty, but it does not eliminate it. Multiple sources of test variation exist. The ISO International Standard creates a framework to minimize variation from machine to machine and laboratory to laboratory but does not address the other types of variation.

The draft regulatory text specifies "the machine alignment procedure specified in ISO 28580… using pairs of laboratory alignment tires specified [specification TBD]." This is insufficient for establishing a machine alignment procedure. ISO 28580 provisions lay out requirements for a reference laboratory or reference laboratories, but it is beyond the scope of the standard to assign reference laboratory designations. Instead, the standard contemplates that governments would identify reference laborator[ies] for use in complying with a specific regulatory requirement. In order to utilize the reference laboratory portion of ISO 28580, CEC needs to specify a reference laboratory in its regulations. USTMA/TRAC recommend that CEC adopt the alignment procedure in Annex IVa of Commission Regulation (EU) No 1235/2011 of 29 November 2011 amending Regulation (EC) No 1222/2009.[28] Unlike the NHTSA partial

[28] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1235&from=EN

regulation at 49 CFR Part 575.106 and ISO 28580, this annex is a complete laboratory alignment procedure.

Second, CEC has not explained by the definition of "declared energy efficiency rating value" and "the energy performance rating" would include a specification that RRC be determined "plus two standard deviations calculated from the test results of a sample of three tires." USTMA/TRAC have addressed in this comment our disagreement with specifying any specific testing by manufacturers. A self-certification system does not need to include specification of the number of samples tested or the standard deviation. If CEC nevertheless includes such a specification in the regulation, USTMA/TRAC request an opportunity to review the data supporting such specifications.

Last, USTMA/TRAC disagree with the requirement that testing be conducted only at laboratories that the Executive Director has determined meet specific conditions.[29] Even if the final regulation includes a requirement that manufacturers test each SKU, such a requirement is unnecessary. The purpose of the provisions for a reference laboratory in ISO 28580 is to reduce the variation inherent in the use of different laboratories for testing. The provisions provide a way to consistently align results from different laboratories. Tire manufacturers need to have the flexibility to conduct testing in the region where the subject tires are produced, not solely in California, or even the United States. If CEC insists on requiring testing at "approved" laboratories, CEC will need to further extend lead time and adjust the estimates for tire testing costs as this will limit testing capacity.

[29] Sec 3304(a)(2) of Appendix A in the Draft Framework.

III. USTMA/TRAC Perspectives on the Process

USTMA and TRAC support the goals of the replacement tire-efficiency proceeding and welcome the opportunity for dialogue with CEC and other stakeholders as the Commission moves forward in this rulemaking process. However, we were troubled by the limited initial opportunities for meaningful stakeholder input after the release of the Draft Framework of California's Replacement Tire Efficiency Program ("Draft Framework") and Summary of Tire Testing for California's Replacement Tire Efficiency Program, per AB 844 January 2023 ("Tire Testing Summary").

The documents were posted to the CEC Tire Efficiency Docket late in the day PST on February 1, 2023. Stakeholders were notified by email that the documents were posted on February 2 and 3, giving stakeholders six business days to review over 320 pages of proposals, data and analysis prior to the Staff Workshop held on February 14, 2023. While the staff solicited oral comment during the workshop, stakeholders did not have adequate time to review and assess the documents prior to the workshop in order to provide meaningful comment at that time. We were also concerned that CEC staff had planned to bring a proposal to initiate formal rulemaking before the Commission on March 6, before the comment period for the staff workshop was initially scheduled to close on March 9.

We were heartened to see that the agenda item was removed from the March 6 agenda and that the comment period was extended two weeks. We are hopeful that this indicates a willingness to consider comments received during this comment period before moving forward with initiating a formal rulemaking. While we have taken considerable time and effort to

assemble these comments, even with the extension to the comment period, we were limited in our ability to complete all the analysis we attempted. As noted in our comments, we will continue to evaluate the Draft Framework and Tire Testing Summary after the close of the comment period. We would like to reserve the option to provide additional feedback to CEC staff and commissioners after the close of the comment period. We also welcome the opportunity for dialogue with CEC commissioners and staff as this process moves forward.

Appendix A: Economic Impact of the U.S. Tire Industry in California

Direct Economic Impact			
	Jobs	Wages	Output
Manufacturing	2,036	$168,820,900	$784,231,200
Manufacturer Owned Service Centers	1,544	$115,857,400	$152,044,600
Wholesaling	2,908	$250,775,600	$1,230,189,900
Retailing	14,673	$1,092,804,800	$2,313,502,600
Total	21,161	$1,628,258,700	$4,479,968,300

Supplier Economic Impact			
	Jobs	Wages	Output
Agriculture	2,594	$171,669,000	$212,612,100
Business and Personal Services	4,618	$408,271,800	$678,273,600
Mining	43	$5,167,300	$21,824,000
Construction	109	$8,598,400	$26,909,300
Finance Insurance and Real Estate	2,280	$172,334,700	$650,674,400
Manufacturing General	2,126	$208,757,900	$950,555,700
Retail	266	$13,241,600	$38,356,200
Transportation & Communication	3,268	$358,585,200	$965,749,200
Travel and Entertainment	702	$31,560,100	$49,814,100
Wholesaler	943	$101,886,700	$307,133,100
Government	238	$29,439,600	$55,350,700
Other	0	$0	$0
Total	17,187	$1,509,512,300	$3,957,252,400

Induced Economic Impact			
	Jobs	Wages	Output
Agriculture	712	$45,980,800	$95,938,800
Business and Personal Services	8,097	$593,642,900	$953,870,800
Mining	14	$1,416,800	$7,497,600
Construction	142	$10,634,400	$32,997,700
Finance Insurance and Real Estate	3,241	$273,862,900	$1,480,663,700
Manufacturing General	1,281	$122,800,700	$727,467,900
Retail	2,317	$113,566,200	$264,131,600
Transportation & Communication	1,526	$159,901,800	$454,008,400
Travel and Entertainment	2,730	$107,144,200	$216,568,700
Wholesaler	592	$64,356,800	$201,865,600
Government	254	$30,470,400	$66,684,600
Other	518	$24,892,100	$26,583,300
Total	21,424	$1,548,670,000	$4,528,278,700

	Jobs	Wages	Output
Total	59,772	$4,686,441,000	$12,965,499,400

Taxes Generated: Business and Personal

Federal	$1,091,326,700
State and Local	$897,848,300
Total Business and Personal Taxes	$1,989,175,000

Totals May Not Add Due to Rounding