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Docket Number:	20-TIRE-01
Project Title:	Tire Efficiency Order Instituting Information Proceeding
TN #:	248890
Document Title:	Presentation - US Tire Manufacturers Association, February 14, 2023
Description:	Presentation from the U.S. Tire Manufacturers Association during the Replacement Tire Efficiency Pre-Rulemaking Staff Workshop February 14, 2023
Filer:	Sebastian Serrato
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/21/2023 8:50:29 AM
Docketed Date:	2/21/2023



North American Tire Manufacturers Perspectives on Tire Consumer Information and Standards

CEC Tire Efficiency Workshop
February 14, 2023



Tire and Rubber
Association
of Canada

L'Association
canadienne du pneu
et du caoutchouc



USTMA/TRAC Tire Manufacturer Members

USTMA/TRAC shared members



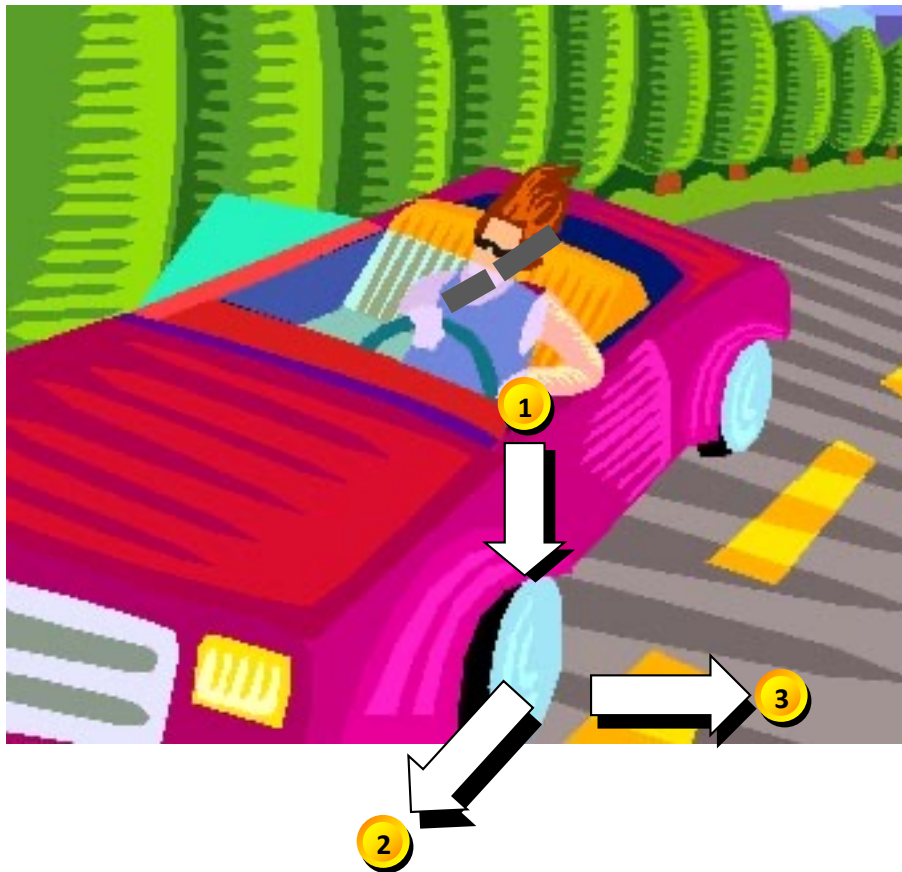
TRAC – additional members (and USTMA statistical affiliates)



We support consumer tire information and minimum performance standards that:

- Give consumers meaningful choices for their vehicles and driving needs
- Do not lead to trade offs that are unacceptable to consumers
 - Product design
 - Performance (*e.g., rolling resistance, wet grip*)
 - Environmental impact (*e.g., GHG emissions vs. average tire life/scrap tire generation*)
- Are technically achievable and cost effective

What does your tire do?

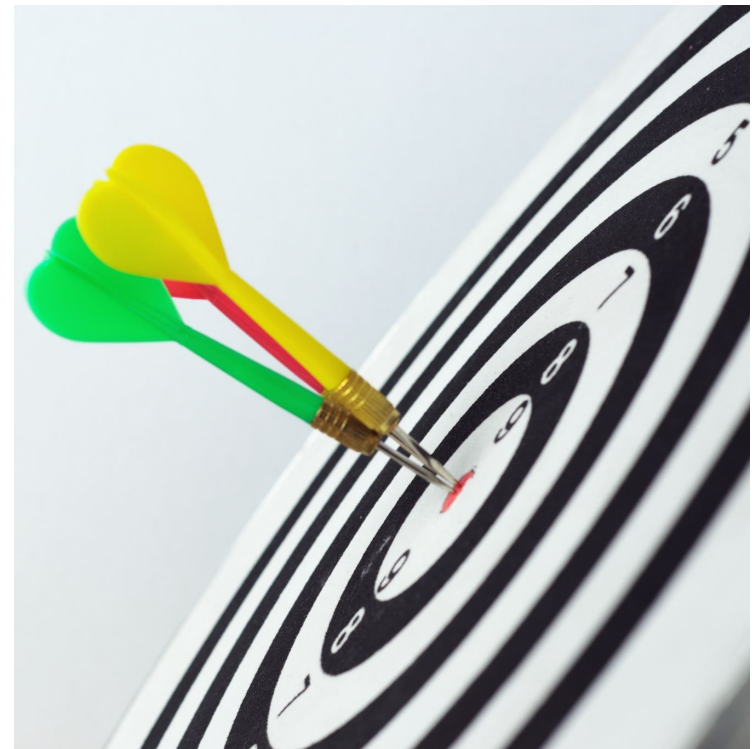


Grip and road handling:

- 1 carry
- 2 drive & brake
- 3 steer

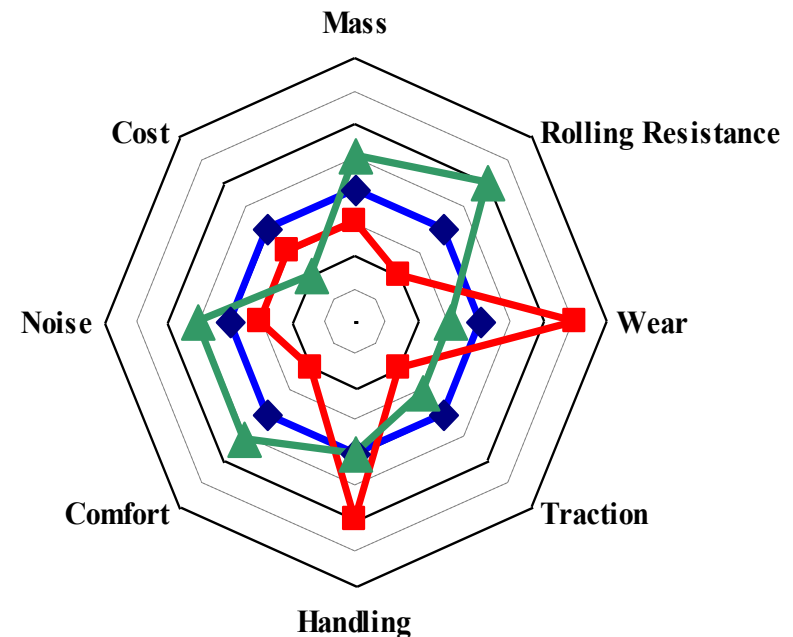
What is the perfect tire? It depends!

- What kind of vehicle do you drive?
 - The consumer has already made vehicle choice by the tire they are buying replacement tires!
 - Car? CUV/SUV? Minivan? Pickup Truck? Work vehicle? Sports car?
 - Gas engine? Electric vehicle? Hybrid?
- Is the tire original equipment or a replacement tire?
- Where do you live? City? Suburb? Rural? Mountains? Desert?
- How are the roads you use?
 - Well-maintained? Rough? Curvy? Mountainous?
 - Do you need to drive off-road?
- What is your weather like?
 - Do you have different seasons? Rain? Snow? Hot? Cold?
- What kind of driving do you do?
 - Long distances, long commute or trips? Short trips mostly? Some of both? Traffic?
 - Do you use your vehicle for work? Do you haul heavy items?



Interaction of Tire Performance Parameters

- Tire design is an exercise in balance and choice
- Improving or optimizing one performance parameter significantly impacts others



Key Performance Trade-offs



Rolling
Resistance



Wet Traction

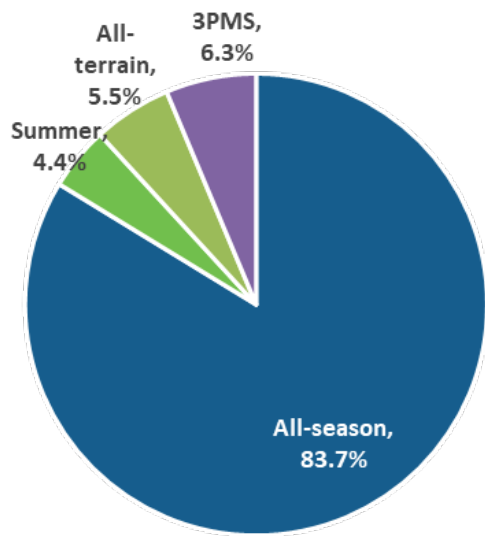


Treadwear



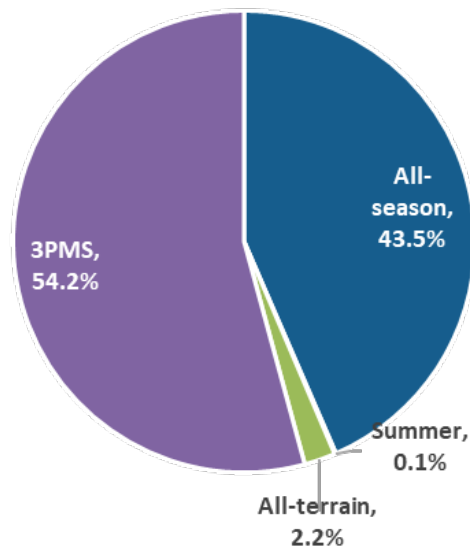
Global Passenger Tire Markets are Very Different

United States



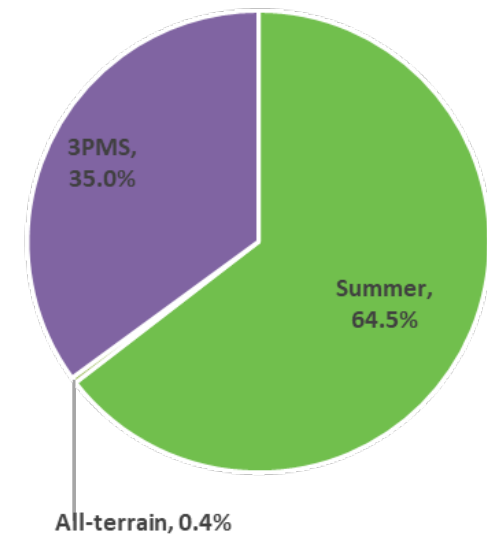
Source: U.S. Tire Manufacturers Association, 2021.

Canada



Source: Tire & Rubber Association of Canada, 2021.

Europe



Source: European Tire & Rubber Association, 2021.

Notes: 3PMS Category includes dedicated winter and 4-season with 3PMS marking
European summer category may include small percentage of tires with M+S marking

We support
a unified
North
American
Approach

- Maximize impact and effectiveness
- Minimize implementation costs
- Provide clear, consistent messages to all consumers
- Aligned with North American and other global regulations

We support
technology
neutral
regulations

- Foster development of new, innovative technologies to enhance tire and vehicle safety, performance and reliability
- Regulations should:
 - Focus on performance, not technologies
 - Allow for streamlined updates over time
 - Coordinate with other regulatory entities

Components

**Consumer
information
(ratings)**

**Minimum
performance
standards**

Tire consumer information should...



Be useful to consumers



Give consumers meaningful choices for their vehicles



Create rating bins that are at least as wide as sources of variability



Allow for adequate compliance assurance and flexibility



Allow for product improvement/differentiation



Communicated clearly to consumers

Tire Consumer Information: Applicability

Consumer passenger cars, SUVs and light trucks

- Passenger tires used on
 - Passenger cars
 - Minivans
 - SUVs
 - Light trucks

Excluded

- Tires with a nominal rim diameter of 12 inches or less
- Deep tread tires
- Space-saver or temporary use spare tires
- Competition tires
- Light truck tires (LT and C marked)

Winter tires (3PMS symbol)

- Include in rating system in Canada only
- Excluded in U.S. by statute but we support optional labeling to allow for consistent North American marketing materials

What tire performances should be rated?

Tire efficiency
(rolling resistance)

- Rolling resistance coefficient

Wet traction
(wet braking)

- Peak coefficient of friction

Treadwear

- (U.S.)

Winter performance

- 3PMS symbol only
(Canada only)

Rating Levels

We support three rating levels

Examples:

- Good-Better-Best
- Bronze-Silver-Gold

Consistent across North America



How should ratings be provided?



Internet
information



Point of sale



Tire markings or stickers are not an effective way to communicate with consumers

We support
one North
American
rating
system

- Multiple systems would confuse consumers
- CEC proposed program would create a second system unless UTQGS is eliminated
- We support a phased transition from the federal Uniform Tire Quality Grading Standards (UTQGS) to minimize cost
 - New products: eliminate UTQGS sidewall grading requirement; eliminate temperature grading requirement and replace with speed symbol
 - Existing products: allow sidewall grading until molds are replaced

We support
minimum
performance
standards



Tire efficiency
(rolling resistance)



Wet traction
(wet braking)



Tire efficiency and wet traction standards should be set together to assure no inappropriate design tradeoffs

Applicability

Consumer tires with largest market impact

- Passenger tires with speed symbols V and below

Exclude from regulation

- Tires with a nominal rim diameter of 12 inches or less
- Space-saver or temporary use spare tires
- Competition tires
- Light truck tires (LT and C marked)

Standards tailored to North American tires

Tire efficiency (rolling resistance):

- Non-3PMS passenger tires with speed symbols less than or equal to V: 10.5 kg/T
- 3PMS passenger tires: 11.5 kg/T (Canada only)
- Assume 0.5 kg/T compliance margin to assess market impact

Wet traction (wet braking):

- Non-3PMS passenger tires with speed symbols less than or equal to V: 1.0
- 3PMS passenger tires: 0.9 (Canada only)

Ratings and standards: Recommended test methods

Tire efficiency (rolling resistance)

- Rolling resistance coefficient, as measured using ISO 28580
- Aligned to the EU virtual alignment system
- Assume 0.5 kg/T compliance margin to assess market impact

Wet traction (wet braking)

- Wet braking index, as measured using ISO 23671
- Consistent with UNECE Regulation No. 117

Tread wear

- UTQG tread wear test

Ratings and standards: Compliance demonstration and surveillance



We support self-certification for compliance demonstration



Adequate margins to assure compliance



Regulatory compliance surveillance audits to assure equal playing field



With self-certification, manufacturer would report rating to government, consistent with ratings system in Europe, U.S. (UTQGS) and U.S./Canada (FMVSS/CMVSS)

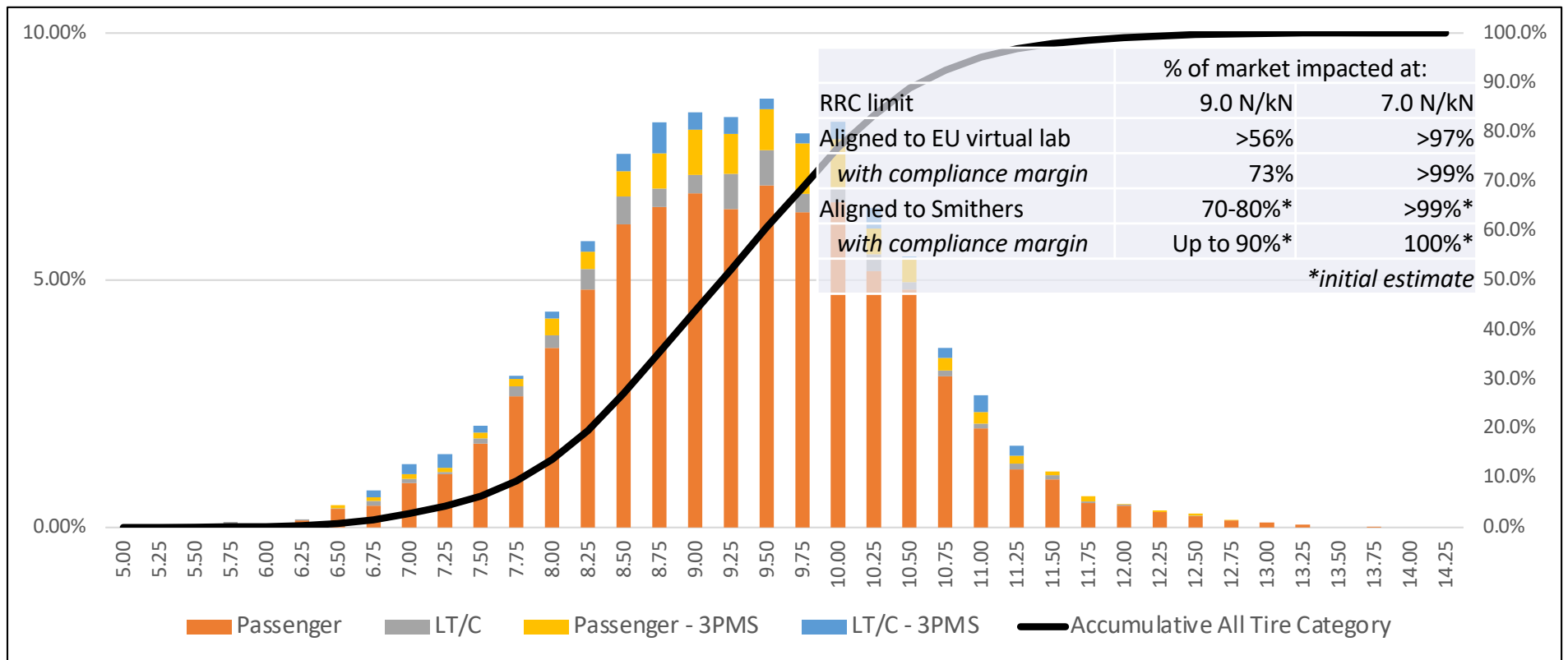
We support principles for purchase incentives

- Purchase incentives should be based on a consumer rating system described in previous slides
- Purchase incentives should be tailored to ensure that consumers make a tire selection appropriate for their vehicle and driving needs
- Governments should consider and evaluate the interaction of tire performance characteristics when designing purchase incentives:
 - Tire efficiency (rolling resistance)
 - Wet traction (wet braking)
 - Tread wear

CEC Staff Report

- We appreciate the opportunity to review and will be providing comments
- Initial perspectives to offer:
 - Market elimination
 - Performance trade offs
 - Wet traction
 - Tread life

Impact of CEC Proposed RRC limits (based on 8500+ datapoints)



Performance trade offs between RRC and wet grip



- Goal of wet traction rating/standard is to avoid trade off that would be unacceptable to consumers when designing a tire with lower rolling resistance
- Trade offs between rolling resistance and wet grip are made at the design phase – so comparison with UTQGS or traction testing may not illustrate concern
- Wet grip test method should be aligned with other global methods – ISO 23671
- Concern about CEC proposal for adjusting UTQGS wet traction grades – need to better understand technical basis

Performance trade offs between RRC and tread wear



- Aggressive rolling resistance improvements can be made at expense of tread wear performance
 - OE tire tread life expectations are significantly lower than replacement tires
 - OE tires do not have tread wear warranties
- Not surprised correlation was not seen between UTQGS grades and RRC – need to evaluate tread wear data instead of ratings
- Would CEC be willing to provide identification of tires tested by Smithers so USTMA would provide more reliable tread wear estimations?

USTMA Sustainability Vision and End of Life Tires



- USTMA members share a common vision on sustainability throughout our products' life cycle
- Regarding end-of-life tires, USTMA members have adopted a goal of that all scrap tires enter sustainable and circular end use markets

Thank you!

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