



Manufacturer Testing and Compliance

California Energy Commission
Staff Workshop

April 8, 2009

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Requirements of AB844 (25771)

- A. Develop a database of the energy efficiency of a representative sample of tires sold in the state.
- B. Develop a rating system based upon the data collected in (A) for the energy efficiency of replacement tires sold in the state that will enable consumers to make informed decisions when purchasing tires for their vehicles.
- C. Based upon the test procedures pursuant to (A) and the rating system pursuant to (B), Develop requirements for tire manufacturers to report to the commission the energy efficiency of replacement tires sold in the state.



Total Number Tire SKUs Sold in the US

	Passenger Tires	Light Truck Tires	TOTAL
Primary Brands: # Tire SKUs	13,950	2,354	16,304
Other Brands: # Tire SKUs	6,758	942	7,700
Total SKUs	20,708	3,296	24,004

Source: Smithers Scientific, Inc. 2/5/09 CEC Presentation

- “SKU” stands for “stock-keeping unit” and is used to refer to distinct tire products available for sale
- Any count of SKUs is a snapshot in time
- RMA agrees that these estimates accurately represent the US tire market
- Approximately 10% of SKU’s ‘turn-over’ each year



Current Tire Testing

- Current testing in tire industry focuses on
 - Endurance
 - Traction
 - Tread wear
- Increased rolling resistance testing requirements will require significant investment in the tire industry
- The tire industry understands that this investment is required but supports a cost-effective approach to compliance that minimizes costs while maximizing and accelerating benefits



Current Tire Industry Testing Capacity

- Machines are not standing idle
- Machines used for RR testing can perform other tests – non-RR test time can be consumed by other testing
- Each company equips, staffs and accounts for testing differently
- ‘Excess capacity’ across the industry is difficult to define and calculate



Current Tire Industry Testing Capacity

- Given CURRENT equipment and staffing levels the time required to test multiple replicates of all SKU's would be decades.
- We have reversed the question and asked how much new capacity would be required to complete the job in a given amount of time



Adding to Current Tire Industry Testing Capacity

Industry Cost estimate for Testing all Existing SKUs (RMA members only)

# machines to purchase		9
total capital	\$	7,605,000
- machine cost	\$	5,850,000
- test cell	\$	1,755,000
tire cost (one-time cost)	\$	5,457,900
total annual costs	\$	3,425,000
- labor cost	\$	3,200,000
- energy	\$	135,000
- maintenance	\$	90,000
total cost for 3 years	\$	21,575,400

Assumptions

- test every existing SKU with 3 tire replicate
- no compliance assurance testing
- 3 year implementation period
- take existing machine to 100% capacity with additional manpower
- add additional test machines and labor for additional capacity
- assume 18 month installation time for new equipment
- assume 18 months of annual costs for new machines
- tires are tested only where they are sourced



Program Options

- Data-submission based
- Tire energy efficiency rating system
 - Self certification, plus:
 - government audit, or
 - stakeholder challenge



Data Submission Option

- Would require tire manufacturers to submit test data on every tire sold in CA (effectively ALL tires sold in US)
- Would require initial testing of existing products and new products as they are introduced
- Manufacturers would also conduct surveillance testing to assure continued compliance
- Highest cost and longest implementation period
 - Manufacturer capital investment and operating expense
 - Larger Commission investment in expertise
 - Larger Commission investment in consumer education to overcome unrealistic consumer expectations



Self-Certification

- Federal law requires manufacturers of vehicles and motor vehicle equipment to self-certify that regulated products are in compliance with federal regulations
- Burden is solely on manufacturer to ensure compliance with Federal safety and consumer information regulations
- Does not specify means to comply but does make publicly available the test methods that will be used to assure compliance



Self-Certification

- Manufacturers not only must certify initial compliance with a regulation but must ensure continued compliance
 - Quality control measures in manufacturing
 - Periodic surveillance testing to assure compliance



Why Does Self-Certification Work?

- Significant penalties for non-compliance
 - serves as motivation to comply
 - deterrence from non-compliance
- Consequences of non-compliance
 - Damage to company's reputation
 - Significant costs associated with fines, corrective actions
- Periodic government auditing
 - Which product will be audited is unknown, creating incentive for compliance in all products



Benefits of Self-Certification

- Minimizes government bureaucracy and needed to manage program
- Gives companies flexibility to design compliance program suited to companies' needs
 - Companies use a combination of a variety of methods in compliance program
 - Testing
 - Computer modeling
 - Quality control in manufacturing process
 - Other proprietary methods



Benefits of Self-Certified Tire Energy Efficiency Rating System

- The most cost-effective means to assure compliance
- Self-certification is not without cost
 - Will result in increased test load as well but not to the extent that data submission approach would
- Accelerates environmental benefits by compressing implementation time



Benefits of Self-Certified Tire Energy Efficiency Rating System

If not required to test every SKU

- statistical modeling and sampling techniques can be applied
- test demand reduced to a level manageable with current equipment capacity
- Grades can be assigned without lead time of full testing program



Industry

Cost Estimate for Self-Certified Energy Efficiency Rating System

- Cost is estimated at \$3.92 million
- Assumptions
 - Includes RMA member data only
 - Costs associated with testing and rating tires
 - Rating system addressing existing SKUs
 - 24-month period to complete testing
 - 20% of SKUs tested
 - No new testing equipment purchased
 - Companies with insufficient test capacity contract with third-party laboratories to complete testing



Benefits of Self-Certified Tire Energy Efficiency Rating System

Data Submission-based Reporting

- \$21.5MM industry cost (estimated)
- 3 years to collect data before rating system can be implemented
- Commission must acquire and maintain data expertise

Self-Certification Based Rating System

- \$3.92 MM industry cost (estimated)
- Rating system could be implemented in approximately 24 months
- Commission does not require data expertise



Example of Self-Certified Rating Successfully Applied

- UTQG Traction implemented 30 years ago with A/B/C ratings
- Tire population evenly distributed throughout three grades
- Over 20 years tire population evolved and crowded A grade – so much that a new, higher grade – AA had to be created
- Manufacturers product performance and consumer purchase habits were shifted in the desired direction



Summary

- RMA supports a self certified tire energy efficiency rating system
 - accelerated environmental benefits
 - reduced industry capital expense and operating costs
- Concerns about de-rating of UTQG grades is not a fault of self certification. Regulations can be written to prevent this possibility
 - UTQG wear grade is a ‘minimum’ performance
 - require actual performance to be graded