

# **Scope of Work**

## **Retread Tire Contract**

### **I. Introduction/Objectives**

Truck tire and off-the-road (OTR) tire retreading represent important components of CalRecycle's tire market development approach. In 2018, retread truck tires represented a reduction of 47,925 tons of tires (4.8 million passenger tire equivalents) annually from California's landfills.

To reduce costs and respond to competitive factors, there has been (and continues to be) a consolidation of retreading operations, both domestically and in Asia. According to industry representatives, of its share of the commercial tire replacement market, retread tires in North America have declined from 55 percent to 44 percent over the past 20 years. Many in the retread industry believe the decline is due to increased competition from low-cost Chinese imported tires.

Anecdotal evidence suggests that the casing and chemical composition of many low-cost imported tires may preclude retreading. There are questions regarding what standardized testing is necessary to objectively evaluate tire wear performance and rolling resistance. Also, there must be publicly available testing information in order to enable purchasers to compare tire performance and the ability to retread tires between manufacturers.

There have been various reports produced describing the economic, environmental, and societal benefits of retreading. Analysis of the reports may be useful to commercial fleets, businesses, and state and local government entities to understand and take appropriate actions to realize those respective benefits.

Most large commercial trucking fleets understand the benefits and cost savings of using retread truck tires. However, in small to medium size trucking fleets (10 – 100 trucks), retread usage is significantly less. Many of these trucking fleets do not benefit from major manufacturer's (Bridgestone, Goodyear, Michelin, and others) coordination and support. This results in tire purchases being based on an immediate need and the lowest initial cost rather than the overall total cost and best return on investment.

While some state and local government vehicle fleets use retread truck, bus, or equipment tires, many government entities incorrectly cite policy (including the State Agency Buy Recycled Campaign, recycled purchasing statutes and ordinances), bidding or insurance restrictions as the reasons why they do not use retread tires. In some instances, out-of-date information may need to be corrected to rectify misunderstandings and misinformation that impact the use of retreads.

The e-commerce delivery segment is experiencing rapid growth with a shift toward smaller distribution vehicles and a trend toward electric vehicles. The ride hailing/ride sharing (also called transportation network companies) segment is also experiencing significant growth. While many consumer passenger vehicles travel 12,000 – 15,000 miles per year, many ride hailing vehicles reportedly travel 50,000 miles per year or more. The higher annual mileage may be an important consideration in deciding whether to pursue retreading tires.

Various state agencies and local governments have inquired about the feasibility of retreading their fleet's passenger tires. Based on stakeholder input, passenger vehicles with average to moderate usage may not represent an appropriate opportunity for using retreads. These tires tend to "age out" before being appropriate to retread. The pricing structure and other aspects of passenger tires are orientated to a one-time consumer use versus retreading. However, vehicles and light duty trucks with high annual mileage may present opportunities for using retread tires.

While other types of tires are retread (foam filled, aircraft, etc.), this contract will focus on truck, bus, heavy equipment, and OTR tires (referred to as targeted tires).

## **II. Work to be Performed**

The Contractor is responsible for various activities that support the use of retread targeted tires, thereby supporting CalRecycle's tire market development goals.

This will be accomplished by providing education and training to appropriate commercial and government fleet operators to encourage the use of retread tires. The Contractor shall examine light truck and passenger tire opportunities, especially as it relates to e-commerce delivery, transportation and government sectors. It shall research the necessary attributes for a tire to be retread and quantify the various benefits of retreading. The Contractor shall present the findings in a report and summarize the report in a public meeting.

In order to accomplish the work, the Contractor agrees to:

Task 1. Prepare and revise (as necessary) the Work Plan.

Task 2. Develop applicable prospect lists, surveys, educational and training materials. Coordinate and conduct training to state agencies, local governments, commercial fleets and appropriate businesses regarding using retread targeted tires.

Task 3. Survey appropriate information sources, including business and government fleet operators regarding light truck and passenger tires. Identify issues, (actual and perceived) barriers, solutions and costs to increase the use of retread light truck and passenger tires.

Task 4. Review and summarize available literature related to the requirements and attributes necessary for a tire to be retread. Identify what standardized testing is

necessary to objectively evaluate the attributes of a tire to be retread, tire wear performance and rolling resistance. Recommend how to make testing information publicly available.

Review and summarize available literature related to the economic, environmental, and societal impacts of retreading in California currently and with an increase in retreading.

Task 5. Publish a report summarizing the contract activity and research. Present the findings at a public workshop or meeting.

### **III. Tasks Identified**

#### **Task 1: Work Plan**

The Contractor shall meet with the Contract Manager to review the Work Plan provided in the Proposal and fine-tune timelines and minor operational details of tasks and deliverables, including reports, educational materials, presentations and/or dissemination of information to stakeholders, or any other related communication, as needed.

Should minor adjustments to the Work Plan be necessary, the Contractor shall submit any such changes to the Contract Manager for approval. Work shall not proceed according to the revised Work Plan without written approval from the Contract Manager.

#### **Task 2: Education and Training**

The Contractor shall support increased demand for targeted retread tires through education, (on-site and on-line) training, and appropriate follow-up. The criteria, lists, and all materials developed are subject to CalRecycle's Contract Manager review and approval. In order to complete this task, the Contractor shall:

- A. Provide selection criteria and a prospect list (at least 200 total entities) of California state agencies/departments (often with multiple locations) with truck and/or equipment fleets (at least 40), local (city and/or county) governments with truck and/or equipment fleets (at least 75), commercial trucking and rental truck fleets (at least 75); and businesses using OTR tires (at least 10) to be provided education and training regarding the benefits of using retread tires.
- B. Survey and interview at least 5 state and local government fleet operators that currently use retread tires as well as at least 5 prospective users of retread targeted tires. Identify the reason(s) why they do or do not use retread tires along with their procurement process and any impediments such as policy, bidding or insurance restrictions. Identify any actual policy requirements (such as the State Agency Buy Recycled Campaign, recycled product purchasing policies and ordinances) or prohibitions, and identify the applicable contracting and/or purchasing process for tires and retread tires.
- C. Coordinate with appropriate associations and entities to develop and produce a brochure (both electronic and print versions) and a video appropriate for upload to

YouTube, CalRecycle's website, and similar platforms, to both educate and persuade state agencies, local governments, commercial fleet operators, and businesses to use retread targeted tires. Among other relevant topics, the material shall also describe best management practices (BMP) that allow a targeted tire to be retread (and retread multiple times) and various recordkeeping and cost saving tools and activities.

- D. Compile a comprehensive list of California retread facilities, including contact information and relevant services and products.
- E. Develop and conduct a survey of education and training participants: (1) prior to the training (separate from the survey described in Task 2.B); (2) immediately after the training; and (3) six months after the training. The survey prior to and immediately after training will measure, at a minimum, understanding about retreads, (actual or perceived) barriers to retread use, and what it would take to overcome barriers. The survey six months after the training shall ask whether retreads were used and their experience.
- F. Present the education and training to fleet managers for at least 40 state agencies or departments (including regional or district offices that have purchasing authority for tires or retread tires); conduct at least ten regional workshops and six webinars to local governments and commercial businesses and fleets that use targeted tires; and at least two webinars or workshops to businesses that specifically use OTR tires.

### **Task 3: Light Truck and Passenger Tire Evaluation**

- A. Research the potential for retreading light truck (including rental trucks) and passenger tires as it relates to e-commerce delivery, ride sharing/ride hailing services, and state and local government fleets. Develop and conduct appropriate surveys of the above market segments (and other sources) to identify the types, sizes, and quantity of tires used, annual vehicle miles traveled (range and average), type and condition of travel (e.g., urban or rural, flat or mountainous terrain), current vehicle tire maintenance procedures and responsibilities, current process and options for purchasing tires, history of tire prices, and any other relevant topics.
- B. Research and summarize the current practices for retreading light truck and passenger tires in other states and countries (e.g., European countries retreading tires for taxis) and applicability for California.
- C. Analyze and describe the market conditions as well as the survey results and research. Describe the existing situation and potential for retread tire use for the three market segments (e-commerce delivery, ride sharing, and government) and consumers, identify the requirements and barriers, possible solutions, and provide cost estimates for each segment.

## **Task 4: Literature Research**

### **A. Retread Tire Attributes**

- i. Research and describe the chemical composition, casing structure requirements and recommended attributes for targeted tires to be retread. Identify what standardized testing is necessary to objectively measure those attributes.
- ii. Perform a literature review of publications and studies related to the chemical composition and casing structure of domestic and imported targeted tires and provide a concise summary of each publication or study.
- iii. Identify what standardized testing is necessary to objectively evaluate tire wear performance and rolling resistance. Provide recommendations regarding how to make testing information publicly available in order to enable purchasers to compare tire performance and the ability to retread tires between manufacturers.

### **B. Retreading Impacts**

- i. Perform a literature review of publications and studies and provide a concise summary that: a) describes the safety of retreads, and b) quantifies the economic, environmental, and societal impacts of retreading.
- ii. Provide the estimated economic, environmental, and societal impacts that could result from a 10 percent increase in retread use in California and separately, a 10 percent increase in state government retread use.

## **Task 5: Reporting**

- A. Provide Monthly Progress Reports to the Contract Manager covering contract activity. The Monthly Progress Reports shall include but are not limited to tasks; sub-tasks; total budget; previously billed amount, current month billing; amount remaining; summary of activity completed; anticipated next steps; and significant issues or potential impediments and proposed or recommended resolutions.
- B. Provide a draft Final Report by February 1, 2022, and a Final Report incorporating any CalRecycle comments by April 1, 2022. The draft Final Report will be reviewed by the Contract Manager and other CalRecycle staff who will provide comments or questions that shall be addressed or incorporated into the subsequent version of the report. Any requested changes shall be completed by the Contractor and resubmitted to the Contractor Manager for approval. Only when all revisions are made and approved by the Contract Manager will the Report be deemed final.
- C. The Final Report shall be provided by April 1, 2022, and shall include, but not be limited to: a description of the current retread situation and a forecast of possible future alternatives; possible measures for retread operators to reduce costs and improve competitiveness (e.g., automation, energy saving measures, etc.); a summary of the contract activity; a summary of the education and training activity and survey results; copies of education and training materials developed, the results of each task (including Task 3 and 4); and anything else considered relevant to determine the effectiveness of the contract.

The Final Report shall also contain programmatic and policy (administrative, regulatory, and legislative) options, with recommendations where appropriate, to result in a sustainable increase in the manufacture and use of retread targeted tires in California. Include an analysis of retread incentives (subsidies, etc.) offer in other states and relevant countries. Provide a recommendation and the potential impact of an appropriate California retread incentive.

- D. Present a summary of the contract activity and results at a CalRecycle meeting or workshop, if requested.

All documents and or reports drafted for publication by or for CalRecycle in accordance with this contract shall adhere to [CalRecycle's Contractor Publications Guide](https://www.calrecycle.ca.gov/Contracts/pubguide) (<https://www.calrecycle.ca.gov/Contracts/pubguide>) and must be reviewed by a technical editor of the Contractor's choice to assure that the reports comply with CalRecycle's Guidelines, after which they shall be submitted to and reviewed by the Contract Manager in consultation with the CalRecycle editor.

The Contractor is encouraged to consult with the CalRecycle Contract Manager and CalRecycle editorial staff early in the development process to ensure deliverable requirements are clearly understood and to minimize the need for revisions.

## **IV. CONTRACT/TASK TIME FRAME**

A contract term of 22 months is anticipated, beginning in June 2020. The table below reflects the estimated contract task/time frame.

Department of Resources Recycling and Recovery

<b>Task</b>	<b>Deliverable(s)</b>	<b>Timeframe</b>
Task 1: Finalize Work Plan	Final Work Plan	August 1, 2020
Task 2: Education and Training	<ul style="list-style-type: none"> <li>A. Criteria and prospect list</li> <li>B. Survey and interviews</li> <li>C. Develop brochure and video</li> <li>D. List of California retread facilities</li> <li>E. Survey training participants                             <ul style="list-style-type: none"> <li>1. (before) and 2. (after)</li> <li>3. (six months later)</li> </ul> </li> <li>F. Conduct training workshops and webinars</li> </ul>	<ul style="list-style-type: none"> <li>A. October 1, 2020</li> <li>B. February 1, 2021</li> <li>C. January 1, 2021</li> <li>D. April – October 2021</li> <li>E. April – October 2021</li> <li>F. April – October 2021</li> </ul>
Task 3: Light Truck and Passenger Tire Evaluation	<ul style="list-style-type: none"> <li>A. Research and survey</li> <li>B. Research practice for other states/countries</li> <li>C. Analyze and describe task results. Identify requirements, barriers, solutions, and cost estimates</li> </ul>	<ul style="list-style-type: none"> <li>A. April – October 2021</li> <li>B. December 2021</li> </ul>
Task 4: Literature Research	<ul style="list-style-type: none"> <li>A. Retread tire attributes</li> <li>B. Retreading impacts</li> </ul>	<ul style="list-style-type: none"> <li>A. April – October 2021</li> <li>B. December 2021</li> </ul>
Task 5: Reporting	<ul style="list-style-type: none"> <li>A. Monthly Progress Reports</li> <li>B. Draft Final Report</li> <li>C. Final Report</li> <li>D. Present summary and results</li> </ul>	<ul style="list-style-type: none"> <li>A. Monthly, starting August 2020</li> <li>B. February 1, 2022</li> <li>C. Final Report by April 1, 2022.</li> <li>D. March 2022</li> </ul>