

## Review of Economic Model of Used Oil Regulation

The review of the economic models was performed in two stages. First, a review panel evaluated the draft economic report that was prepared for the July 2013 stakeholder's meeting in Sacramento. The review team for this phase of the project was composed of the following members:

Dr. Adam Rose, University of Southern California  
Professor Brad Humphreys, West Virginia University  
Professor Kurt Schwabe, University of California, Riverside

The second phase of the economic review was conducted by the following individuals:

Professor Brad Humphreys, West Virginia University  
Professor Bowman Cutter, Pomona College

The reviews for both cases were based solely on the information contained in the draft and final reports. The reviewers were provided with a verbal description of the project that discussed the objectives of SB546, an overview of the life-cycle analysis conducted by UCSB, and the structure of the contract for the economic model. The reviewers were then charged with the task of analyzing the implementation and structure of the economic models including the direct impacts model, the benefit-cost model and the application of REMI. Each reviewer provided their independent assessment focusing on one element of the modeling. The reports of the reviewers were provided as separate documents instead of one document integrating all the comments. A summary of the findings was provided at each stakeholder meeting and is posted as a PowerPoint with all the documentation on the portal maintained by California State University, Sacramento.

The overall comments on the economic models were positive with statements such as "DIM is relatively straightforward to use" and "...there are no fatal flaws..". However, there were some issues raised such as the limitations in the benefit-cost analysis on what could be quantified monetarily. One reviewer suggested that all the impacts should be discussed qualitatively since so few of the impacts could be reliably quantified. However, it is important to understand that the reviewer was evaluating the benefit-cost report in isolation from the rest of the project reports. When considered holistically, the changes in emissions and discharges for the various policy options for a wide variety of pollutants, such as water and soil impacts and heavy metals, are presented in LCA report.

Overall, the reports submitted by ICF International considered the comments from the first review panel and modified their reports for the final version where appropriate. As CalRecycle prepares the synthesis report that draws on the information from all three contractor reports as well as the findings of the review panels for the LCA and the economic models a more complete picture of the linkages between the models will be apparent.

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