

Data Needs for ORVR-Compatibility Economic Impact Analysis

July 1998

Introduction

The ARB is preparing an economic impact analysis for the proposed ORVR compatibility requirements to compare the net cost or benefit of the ORVR proposal and any alternatives to this proposed change. Many uncertainties and data gaps make this a difficult task. Any information contributed by interested parties which can improve the quality of this analysis will be gratefully accepted.

We have outlined below some specific issues related to preparing a cost benefit analysis for this specific regulatory change. We have also provided a preliminary “matrix” of individuals and categories of business entities who may be affected by the proposed regulatory change together with tentatively identified impacts to persons and entities in each category.

Interested parties are encouraged to review the list of specific issues and the tentative impact matrix and contribute any information they feel might improve the quality of the cost/benefit analysis. Information may be submitted to Cindy Castronovo by either E-mail (ccastron@arb.ca.gov) or by Fax ((916) 263-2067). If you have questions or need further information please contact Cindy Castronovo by either E-mail or at (916) 263-1628.

Specific Issues

The economic impact analysis of the proposal to require Phase II vapor recovery system compatibility with ORVR would benefit from input from concerned parties on the following items:

1. Number, Type and Throughput of Various Types of Phase II Vapor Recovery Systems
Estimates of the number of gasoline service stations in California are available but it is not known how many are presently equipped with Phase II vapor recovery system of various types. Of particular interest is the number or proportion of stations with vapor-assist Phase II systems as opposed to the number with balance systems. Recent trends in the proportion of new and modified systems in each category are also of interest. Gasoline throughput through each system type is also desired.

2. Emission Data for ORVR / Phase II Interaction

While various considerations suggest strongly that increased emissions will result from use of assist-type Phase II vapor recovery systems in connection with ORVR vehicles while balance-type systems will be comparatively innocuous, hard evidence in the form of test data has so far not been delivered to ARB. Any information which can help to refine estimates of the impact of ORVR on emissions for these two broad types of Phase II systems will be of value. This may include theoretical analyses where test data are not available.

3. Costs for Phase II Equipment or Vehicle Modifications

The cost of modifying a Phase II system to be compatible with ORVR vehicles is not well established. Because the proposed ORVR-compatibility requirement is performance-based, the form of necessary modifications is undefined and this cost can not be inferred from the proposed requirements. At least one manufacturer has offered estimates of the costs of retrofitting Phase II systems to be ORVR compatible. Any additional information from other sources regarding the nature and cost of vapor recovery system modifications capable of providing ORVR compatibility will be of interest.

4. Useful Life and Component Replacement Costs for Phase II Equipment

The typical working lifetime of various vapor recovery system components, particularly components subject to wear and damage related to customer use, is of interest. Any data on the normal repair or replacement interval, or annual cost of repair and replacement, for components subject to wear and damage will help to quantify the importance of costs involved in modifying Phase II systems for ORVR compatibility relative to normal maintenance costs. In the same vein, any increase or decrease in normal maintenance costs anticipated in connection with modifying Phase II systems for ORVR compatibility would be of interest.

5. Other Alternatives?

The cost/benefit analysis may be enhanced if various alternative strategies are compared. Hypothetical alternatives to requiring ORVR compatibility include (1) a "do nothing" option in which no change in requirements would be instituted, (2) phase-out of Phase II vapor recovery in the state as ORVR-equipped vehicles enter the vehicle population, and (3) modifications to Phase II equipment and/or ORVR vehicles to ensure no net emission increase. Any other alternative which is reasonably susceptible to cost/benefit analysis could be of interest for purposes of evaluating the comparative advantage of instituting ORVR compatibility requirements.

Matrix of Impacted Businesses and Individuals

Listed below are general descriptions of individuals and business entities expected to be impacted by the proposed regulation. Any information whatsoever which will assist the ARB in (1) identifying impacts and benefits other than those listed, (2) assigning quantitative dollar costs to

the various impacts and benefits, (3) identifying how many business entities in a particular category will be affected, (4) identifying additional categories of affected business entities or refining the categories listed, (5) identifying whether effects will result in loss or creation of jobs or failure or creation of businesses in the state will be appreciated, (6) identifying whether impacts will place California businesses at a competitive disadvantage with other states and to what degree, and (7) determining how many businesses in each category are classifiable as small businesses based on number of employees and annual sales will assist us in developing the best possible analysis. A statistical breakdown of service station ownership between franchisees and major oil companies, and profiles of the number of stations in various ranges of throughput and with various numbers of dispensers would be helpful. Contributed information clearly identified as confidential will be protected as such within the applicable regulations; information not so identified may be made available for public review and may be accessible under freedom-of-information rules.

Individual California Residents

- possible very slight increase in the cost of gasoline in the short term
- possible extremely slight increase in cost of gasoline in long term
- possible slight increase in cost of ORVR vehicle.
- benefits from improved air quality including incremental improvements in human life expectancy and level of general health, benefits to cultivated plants and livestock and native flora/fauna, esthetic quality of life, and related economic benefits

Gasoline Service Stations

- required to modify vapor recovery system as necessary to comply with revised regulation
- required to maintain modified vapor recovery system once installed
- indirect benefits from improved air quality

Vapor Recovery System Manufacturers

- possible decline in value of inventory made obsolete by regulation if it can not be sold in a timely fashion
- required to redesign and test vapor recovery systems as necessary to comply with revised regulation
- required to recertify vapor recovery systems as necessary to comply with revised regulation
- short-term increase in sales of equipment
- possible continuing increase in gross sales due to slightly more complex & costly product
- indirect benefits from improved air quality, accounted for elsewhere

Gasoline Service Station Designers/Builders (new facilities)

- possible slight increment in cost of required vapor recovery system
- slight increase in revenue from passing impact costs on to customers
- indirect benefits from improved air quality

Gasoline Service Station Service/Maintenance Contractors

- must retrain to install/maintain new equipment
- increased business installing new equipment
- possible minor increase in maintenance business
- indirect benefits from improved air quality

Vapor Recovery System Equipment and Parts Vendors/Distributors (other than manufacturers)

- possible decline in value of inventory made obsolete by regulation if it can not be sold in a timely fashion
- possible slight cost associated with stocking new inventory
- possible slight increase in long-term volume of business selling newly required equipment
- indirect benefits from improved air quality