

APPENDIX H-1. WATER HEATER MANUFACTURERS INTERVIEW GUIDE

TABLE OF CONTENTS

H-1.1 INTRODUCTION H-1.1
H-1.2 INTERVIEW GUIDE H-1.1

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H-1.1 INTRODUCTION

The Department proposes to conduct interviews with manufacturer representatives in order to gather key information on the effects that potential new energy efficiency standards for water heaters might have on their company's revenues and finances, and on their workforce. This interview guide provides a starting point to identify relevant issues and qualitatively and quantitatively describe possible impacts of candidate standards levels.

H-1.2 INTERVIEW GUIDE

Part A: Current Organizational Characteristics

The Department's interest concerning manufacturer impact is focused at the plant or profit center level directly pertinent to water heater production. The context within which the plant operates and the details of plant production and costs are not readily available from the published literature, however, so the Department invites manufacturers to provide these details confidentially in their own words to the extent practical. The organizational setting around the water heater profit center is of interest to round out the Department's understanding of the probable future of the water heater manufacturing activity without and with energy efficiency standards.

- A.1** Identify names of parent companies and any subsidiaries relevant to the water heater industry.
- A.2** Please provide the locations of your water heater production facilities and the product mix manufactured there.
 - A.2.1** How would energy efficiency standards affect each production facility mix?
- A.3** How has your company incorporated energy efficiency improvements in water heater technology into its product line and marketing strategy?
- A.4** How would a new energy efficiency standard on water heaters affect your product mix and marketing strategy?

Part B: Industry Infrastructure

As part of an attempt to better understand the industry infrastructure and the impact energy efficiency standards might have on it, the Department would like for manufacturer representatives to discuss their major distribution channels and major sources of supply.

Major Customer Types

The following questions are intended to gain an understanding of how potential energy standards levels might affect customer mix and distribution channels.

- B.1** Generally how would a new water heater standard impact your customer mix, distribution channels and corresponding profit margins?
- B.2** Do you see any changes in emphasis on domestic sales channels, and would the presence of new energy efficiency standards have an impact on production of water heaters for sale?

Major Suppliers

The Department recognizes that manufacturers do not operate in isolation and that changes in production levels or economic health of a manufacturer can have significant impacts on its suppliers and other trade allies. The Department plans to be available to meet with representatives of these trade allies and to consider their impacts.

- B.3** Who are the suppliers that may be affected by changes in your product mix as a result of standards? How might they be affected?

Part C: Manufacturer Cash Flow Analysis

Each manufacturer has been given the Government Regulatory Impact Model (GRIM) to develop its own cash flow model to compare with that of the “industry” cash flow. This will allow each manufacturer to use its own financial information to arrive at the expected differences in cash flow due to new energy efficiency standards. These results, together with an adequate understanding of how they were developed, will help the Department to estimate industry impacts for different types of manufacturers.

- C.1** **Costs:** How do you explain differences, if any, between your manufacturing costs with and without new energy efficiency standards and those presented in the sample results for the industry as a whole?
 - C.1.1 Is the “Industry” cost structure (materials, labor, overhead, tooling, etc.) representative of your firm’s costs? What are the differences and their causes?
 - C.1.2 How might new standards alter this cost structure?
- C.2** **Prices:** How do you explain differences, if any, between your expected product prices with and without new energy efficiency standards and those presented in the sample results for the industry as a whole?

- C.2.1 Are your gross margins (% revenue) different post standards? If so, what are the causes?
- C.3 Shipments:** How do you explain differences, if any, between your expected product shipments with and without new energy efficiency standards?
- C.3.1. What assumption(s) did you make about your firm's market share post-standards? What was your reasoning?
- C.3.2 Is your product mix significantly different from the overall industry proportions?
- C.4 Financial:** How do you explain differences, if any, between your financial data and those presented for the industry as a whole?
- C.5 Impacts on the Business:** Please discuss your interpretations of the cash flow analyses results for the standards cases. What do the results imply about the future of the business? Availability of capital?
- C.5.1 Are there additional financial impacts on new standards that are not being captured in the cash flow analysis? Please explain? (i.e., Tax Rate, Discount Rate, Working Capital, SG&A, R&D, Depreciation)
- C.6 Additional Economic Measures:** Please discuss any additional measures, if any, that you might have developed that provide insight into the economic effects of changes in energy-efficiency standards.

Part D: Competitive Impacts Assessment

Competitive impacts are assessed mainly in terms of market power, which is defined as the ability to set a given product price within a limited range. The Department is interested in manufacturer viewpoints on the extent to which new energy efficiency standards would increase market power and thereby lessen competition within the water heater industry.

- D.1** How would new energy efficiency standards affect your ability to compete in the marketplace?
- D.2** Do you believe that new energy efficiency standards would unfairly assist or harm the ability of some firms in the industry to compete?
- D.3** Please discuss examples, if any, wherein substantial consumer subgroups would experience economic or performance penalties as a result of new standards.

- D.4** Can your firm meet potential efficiency levels without changing your products in ways that consumers might care about?
- D.5** Does your company have specific information for the Department on consumer preferences for product attributes potentially affected by new standards?

Part E: Employment Impacts Assessment

The impact of new energy efficiency standards on employment is an important consideration in the rulemaking process. This section of the interview guide seeks to explore current trends in water heater production employment and solicit manufacturer views on how domestic employment patterns might be affected by new energy efficiency standards.

- E.1** How would your employment levels change under new energy efficiency standards?
- E.2** Would the workforce skills required under new energy efficiency standards be different enough to require extensive retraining or replacement of employees?

Part F: Manufacturing Capacity Impacts Assessment

The information discussed here is important for developing an understanding of the investment cost inputs to GRIM.

- F.1** How would the imposition of new energy efficiency standards affect your capacity utilization and manufacturing assets levels at your domestic production facilities?
 - F.1.1** Would any facilities be closed or downsized?
 - F.1.2** Would any facilities be added or upgraded?
- F.2** If current capacity were to be made obsolete, would it be remodeled to accommodate a new product mix?
- F.3** Please estimate the value of stranded assets resulting from a new standard, and/or the costs of refitting the facility and carrying out the research, engineering, and other supporting activities required to accommodate the new product mix.

Part G: Cumulative Impact of Regulation

Please discuss the cumulative impact, if any, of other current or future product regulations on your business, particularly those (such as HCFC phase-out) which could mitigate or exacerbate the impact of new energy-efficiency standards.

G.1 What impact will the HCFC phase-out have on your business?

G.1.1 Has a replacement refrigerant been identified for your operations?

G.2 What impact will the new flammable vapors test procedure have on your business?

G.2.1 Will this alter the product mix, in terms of percentage, between electric and gas water heaters?