

existing concentrations, levels of competitiveness, and financial performances. This information will be sent to the Attorney General. (See TSD, Chapter 6.) The Department also will give the Attorney General copies of this NOPR and the TSD for review.

6. Need of the Nation to Conserve Energy. The estimated energy security and environmental effects from each standard level for each class is reported under this factor in the Product Specific Discussion (Section IV. B. 6) of this NOPR.

7. Other Factors. This provision allows the Secretary of Energy, in determining whether a standard is economically justified, to consider any other factors that the Secretary deems to be relevant.

Each efficiency level was evaluated according to the economic justification factors specified in the Act to determine economic justification. The Department rejected energy conservation standards for which the burdens outweighed the benefits (e.g., savings in operating costs were outweighed by significant increases in first costs and substantially adverse effects on manufacturers' returns on equity).

C. Rebuttable Presumption

Section 325(o)(2)(B)(iii) of EPCA, 42 U.S.C. 6925 (o)(2)(B)(iii), states:

If the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure, there shall be a rebuttable presumption that such standard level is economically justified. A determination by the Secretary that such criterion is not met shall not be taken into consideration in the Secretary's determination of whether a standard is economically justified.

If the increase in initial price of an appliance due to a conservation standard would repay itself to the consumer in energy savings in less than 3 years, then it is presumed that such standard is economically justified.⁶ This presumption of economic justification can be rebutted upon a proper showing.

III. Discussion of Comments

The Department received 49 written comments in response to the 1993

Advance Notice.⁷ This section addresses the general analytical issues raised by the comments, and then addresses the product-specific issues.

A. General Analytical Comments

1. Discount Rates. The proposals of the Department concerning the appropriate discount rates to use in the analysis of the standards drew more comments than any other issue.

In view of the apparent differences in the cost of financing, average rate of return on investments and the time value of money among various categories of consumers, and between consumers, manufacturers and society as a whole, the Department proposed to use different discount rates for the consumer life-cycle cost analysis, the manufacturer impact analysis, and net national benefits calculation, with sensitivity analyses designed to describe the range of impact.

Based on the comments received, the Department has made some modifications in this proposal, but has retained the specification of different discount rates for different types of impact analyses and the use of sensitivity analyses.

a. Consumer Discount Rate. In the 1989 Final Rule, DOE used a 7 percent discount rate, based on the range of real financing rates experienced by consumers. At the time, rates ranged from less than 1 percent to slightly more than 15 percent. DOE selected 7 percent because it was near the midpoint of the potential consumer discount rates.

In its comments on the Advance Notice of Proposed Rulemaking on Energy Conservation Standards for Nine Products (55 FR 39624, 39631, September 28, 1990), Whirlpool Corporation (Whirlpool) offered estimates of the percentages of appliance purchasers that used different types of financing: 40 percent of retail purchasers pay in cash; 35 percent use credit cards; 25 percent use retailer loans. These figures excluded new home construction, which accounts for approximately 25 percent of Whirlpool's total sales. (Whirlpool, No. 31 at 1-2).

These percentage shares were used to weight the different real finance rates experienced by consumers: Just over 3 percent for appliances purchased as part of a new home (whose finance rate is a tax-deductible mortgage interest rate), to slightly less than 1 percent for cash purchases, to more than 15 percent for credit card purchases. As a result, the weighted-average, real finance rate

experienced by consumers was estimated to be 6 percent. In the 1993 Advance Notice to this proposed rulemaking, the Department stated that it believed that the average consumer rate was between 4 and 10 percent and that it intended to perform sensitivity analyses using this range. DOE specifically solicited comments on a range of issues concerning consumer discount rates: Including the usefulness of the Whirlpool data, the methods used to finance retail purchases, the possible use of data on rates of return required by consumers, the possible use of data on the implicit discount rates revealed by consumer purchasing decisions, and the extent to which the special requirements of low-income consumers should be taken into account.

The American Council for an Energy Efficient Economy (ACEEE) supported this weighted-average approach using the Whirlpool data. However, ACEEE and the Natural Resources Defense Council (NRDC) both stated that consumer discount rates based upon how appliances are actually purchased may represent constrained choices or choices of convenience; for example, consumers who pay off credit card balances early, or default on their payments, are not counted correctly. (ACEEE, No. 50 at 1, 2 and NRDC, No. 18 at 24).

The American Council for an Energy Efficient Economy also stated that higher discount rates should not be used for low-income households. Low-income households are particularly prone to market failures (e.g., many low-income households live in rental housing where landlords purchase the refrigerator-freezers, and tenants pay the operating costs) but receive benefits equal to those for all other households from higher standards. (ACEEE, No. 50 at 1, 2).

The Edison Electric Institute (EEI) argued that implicit discount rates estimated through an examination of actual consumer purchases of appliances and related consumer equipment is the most appropriate basis for the consumer discount rate used under this program. (EEI, No. 35 at 4). On the other hand, NRDC and ACEEE supported the Department proposal not to use implicit discount rates in the analysis of the cost-effectiveness of potential minimum efficiency standards. (ACEEE, No. 50 at 1, 2, and NRDC, No. 8 at 24).

DOE has further investigated various indicators of the opportunity costs that consumers purchasing appliances might experience. For example, the average real rate of return on residential property during the 1980s varied

⁶For this calculation, the Department calculated cost-of-operation based on the DOE test procedures. Therefore, the consumer is assumed to be an "average" consumer as defined by the DOE test procedures. Consumers that use the products less than the test procedure assumes will experience a longer payback while those that use them more than the test procedure assumes will have a shorter payback.

⁷Comments on the ANOPR have been assigned docket numbers and have been numbered consecutively.