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Consumer Federation of America Presentation for 4/26/16 Staff Workshop on Computers

Attached are the presentation slides that will be used at the April 26, 2016 staff workshop on computers.

Pls. find page 4 of the attached pdf is below as we have been informed it is not in OCR (optical character recognition) format or searchable which is required for the e-comment to be accepted.

The Electricity Consumption of Household Digital Devices is a Particularly Difficult Problem for the Marketplace to Solve.

-- Externalities: Ultimately, the benefit of reducing energy consumption has value beyond the benefit that each individual directly enjoys from reduced energy consumption (a public goods problem).

-- Bundling/Agency: The manufacturers of the products make the key decisions about energy consumption and the bundle of attributes that will be made available in the market, thereby constraining the range of energy consumption levels the consumer has to choose from (principal agent problems).

-- Agency/Access to Capital: The manufacturers tend to focus on the primary product attributes and the first cost of the device, ignoring the life cycle cost (i.e. the total of acquisition and operating costs) since they do not pay the electricity bills. The manufacturers' interests are separate and different from the consumers' interests (split incentives problem).

-- Risk: Moving efficiency into mass market products runs the risk of being underpriced by inefficient products.

-- Imperfect Information/Motivation: The electricity consumption of these devices is not visible to consumers. The devices are purchased for their functionalities, which, given the dramatic increase in penetration and use, are highly desirable. The level of electricity consumption is not an attribute of the product to which consumers will pay much attention (a shrouded attribute problem).

-- Calculation: Even if consumers are paying attention to energy use, it would be difficult for them to determine how much energy the devices use and the impact of reducing consumption. The information is either not readily available or the transaction cost of obtaining it is high (information and transaction cost problems).

Additional submitted attachment is included below.



Consumer Federation of America

**Presentation of
Dr. Mark Cooper
Director of Research
Consumer Federation of America**

**Workshop on
Computer, Computer Monitors, and Electronic Displays
California Energy Commission
April 26, 2016**

Focusing on the consumer pocketbook, we always start from a basic set of questions:

- **What is the problem that the proposed standards address?**
- **How can the standards be best designed to achieve the goal?**
- **Will the standards save consumers' money?**

The answers for these digital products are crystal clear:

- **The markets for these consumer digital devices are afflicted by significant and persistent market imperfections and failures with respect to energy use.**
- **Performance standards are an ideal solution to the problem.**
- **The proposed standards will deliver significant consumer savings in a very short period.**

Imperfections Addressed by Standards: Highlighting Factors Affecting Digital Devices

SOCIETAL

FAILURES

Externalities

Public Goods

Coordination

Information

STRUCTURAL

PROBLEMS

Scale

Bundling

Cost Structure

Product Cycle

Availability

ENDEMIC FLAWS

Agency

Asymmetric

Information

Lack of Capital

Moral Hazard

TRANSACTION COSTS

Sunk Costs

Risk

Uncertainty

Imperfect Information

BEHAVIORAL

FACTORS

Motivation

Calculation/

Discounting

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KEY DESIGN FEATURES OF EFFECTIVE PERFORMANCE STANDARDS IN THE PROPOSED RULE

- Technology-neutral:** Taking a technology neutral approach to the long term standard unleashes competition around the standard that ensures that consumers get a wide range of choices at that lowest cost possible, given the level of the standard.
- Product-Neutral:** Attribute-based standards accommodate consumer preferences and allow producers flexibility in meeting the overall standard.
- Procompetitive:** All of the above characteristics make the standards pro-competitive. Producers have strong incentives to compete around the standard to achieve them in the least cost manner, while targeting the market segments they prefer to serve.
- Long-Term:** Setting an increasingly rigorous standard over a number of years that covers several redesign periods fosters and supports a long-term perspective. The long term view lowers the risk and allows producers to retool their plants and provides time to re-educate the consumer.
- Responsive to industry needs:** Recognizing the need to keep the target levels in touch with reality, the goals should be progressive and moderately aggressive, set at a level that is clearly beneficial and achievable.
- Responsive to consumer needs:** The approach to standards should be consumer-friendly and facilitate compliance. The attribute-based approach ensures that the standards do not require radical changes in the available products or the product features that will be available to consumers.

BENEFIT COST RATIOS AND PAYBACKS ARE CONSUMER-FRIENDLY

| Device | Cost Lifecycle | Savings | Benefit Cost | Savings Annual | Payback Years | Product Life |
|---------------|---------------------------|----------------|-------------------------|---------------------------|--------------------------|-------------------------|
| Desktop | \$18 | \$62 | 3.4 | \$12 | 1.45 | 5.0 |
| Monitor | \$5 | \$29 | 5.8 | \$4 | 1.13 | 6.6 |
| Bundle, wtd. | \$9 | \$38 | 4.2 | \$7 | 1.21 | 6.2 |
| Notebook | \$1 | \$2 | 2.0 | \$1 | 1.74 | 4.0 |