

RESPONSE OF STEVEN NADEL TO QUESTIONS

MARCH 30, 2009

QUESTIONS FROM SENATOR BINGAMAN

1. Mr. Pitsor has recommended two amendments: to authorize an electric motor rebate program, and to give DOE exclusive jurisdiction for Energy Star programs involving Solid State lighting.

What is your position on these?

**Response:** ACEEE has worked with NEMA to refine the proposal for an electric motor rebate program. We support the current proposal and understand that Senator Lincoln may offer it as an amendment.

Regarding Energy Star programs for solid state lighting, we prefer that DOE and EPA work this out rather than establish the precedent of Congress intervening on program details. Furthermore, we believe that the portable lighting fixture standard in ASIA provides the foundation for resolving this issue, with most solid-state lighting fixtures subject to the DOE specification, but fixtures that are primarily decorative subject to a specification along the lines of the EPA specification. But if the agencies cannot resolve this issue, then we support the proposed amendment.

2. You have proposed amendments establishing efficiency standards for three additional products: water dispensers, hot food holding cabinets, and portable electric spas. In each case, your proposed standard is the same as that adopted in several states.

Please briefly describe what you know regarding the positions of the manufacturers of these products on a federal standard?

**Response:** We have reviewed and discussed the portable electric spa standard with the trade association for these products, the Association of Pool & Spa Professionals, and they tell us they support this standard. Their one comment was to reference a forthcoming ANSI test standard and we have provided the suggested edit to Committee staff. For the other two products there is no trade association and so we have contacted multiple manufacturers. All of the manufacturers we have reached support the standard, a few with small edits that we have provided to Committee staff.

3. The Energy Star program encourages the purchase of highly efficient products by identifying the top 20-30 percent most-efficient models with the Energy Star label. There has been discussion of authorizing a program that would label the top, few most-efficient models, a so-called "Super Star" program.

What do you see as the advantages and disadvantages of this concept, and do you think Committee should have DOE and EPA study it and report to Congress?

**Response:** Energy Star typically includes at least 25% of the products on the market and in some cases more than 50% of the products on the market are Energy Star. For most of these products there is no way for consumers to differentiate between typical Energy Star products and the best products. We have heard suggestions from consumers, from manufacturers, and from program operators to provide recognition for the best products so consumers who are interested can look for these products, and manufacturers and program operators can better promote them. The prime advantage of such a “Super Star” program would be to increase sales and market introduction of the best products, accelerating the market transformation process. Such a label would not be appropriate for all products, and should be limited to products that are cost-effective to consumers over the product life. The disadvantage of such a program is that it would require a significant effort to explain a new dual program (Energy Star and Super Star) to consumers, and if there is not a significant consumer education effort at program launch, some consumers will be confused. We believe the potential advantages are large enough that EPA and DOE should be directed to study the concept.

4. In Japan the appliance efficiency program is known as “Top Runner”. Minimum efficiency standards for a product are automatically and periodically increased based on the market share of the most-efficient models.

What are the advantages and disadvantages of this approach and do you believe the Committee should have DOE study it and report to Congress?

**Response:** The Top Runner approach provides a straight-forward way to set new standards and would significantly raise the standard levels over time. However, the Top Runner approach does not consider consumer economics nor impacts on manufacturers and therefore is a very blunt instrument. Furthermore, in Japan at least, my understanding is that Top Runner standards are not quite mandatory and that the standards cover fleet average efficiency, meaning that some products can fall short of the standard as long as an offsetting proportion exceed the standard. In Japan I have been told that there is a strong sense of shame that manufacturers feel, making the standards nearly mandatory. I think U.S. manufacturers have a different attitude and non-mandatory standards would not work here. Also, fleet average standards are very difficult to enforce. Given these disadvantages, I question whether it is worth the resources to study such an approach for the U.S.

### **QUESTIONS FROM SENATOR MURKOWSKI**

1. Please describe briefly how, in your opinion, this bill best improves upon the existing structure for updating appliance standards.

**Response:** This bill addresses a few limitations in the current appliance standards process such as setting deadlines for DOE to respond to petitions on initiating test procedure and standard rulemakings and allowing fast-track approval of consensus changes to test procedures. DOE has often been slow to respond to petitions in the past and this bill would prevent this process from dragging on too long, while still leaving DOE free to rule on the merits of petitions. The bill’s

process section primarily addresses test procedures and does little on the process for setting new standards. In addition, the bill directs DOE to study compliance with standards and to develop recommendations for improving compliance. Our understanding is that while compliance is generally pretty good, there are some compliance problems. We hope this study will lead to recommendations and actions to improve compliance.

2. Please describe the different policy options available to greater deploy and use energy efficient technology.

**Response:** There are a variety of policy options for increasing use of energy-efficient technologies. Among the options are:

- Labeling of products for energy consumption, so consumers can identify the most efficient and wasteful products. Labels can have numeric values, a scale (e.g. 1-5 stars), or be a simple pass-fail designation like the current Energy Star.
- Promotion and incentive programs to encourage consumers to purchase efficient products. These are commonly operated by utilities, but some states also offer programs. Incentives can also take the form of tax incentives, as were contained in the Energy Policy Act of 2005 and have been revised several times.
- Procurement initiatives targeting large-scale purchases of highly efficient products, so manufacturers have an incentive to develop and bring new high-efficiency products to market. Purchasers can be government agencies, utilities, or large companies.
- Mandatory minimum efficiency standards that set an efficiency floor and eliminate inefficient products from the market.

3. Please describe an efficient process that could be undertaken to review test procedures within the DOE.

**Response:** DOE needs to systematically review all of its test procedures to see that they reasonably estimate performance of typical products in actual use and to see that they reasonably measure the performance of modern products. EISA directed DOE to review and revise all test procedures over a seven year period. We recommend that DOE develop a plan and schedule for this process and that DOE prioritize test procedures for major products that are known to be out of date, such as the procedures for televisions (can't be used for flat screen sets), refrigerators (problems with how the procedure treats ice-maker energy use), air conditioners (procedure does a poor job of reflecting performance in the field), and water heaters (overestimates performance of on-demand water heaters). Key parties involved in the standards program should be surveyed or interviewed to help identify the test procedures that most need updating so these can be targeted first.

4. Please describe a process that could be undertaken within the industry to ensure that there exists "broad consensus" regarding test procedures.

**Response:** Industry trade associations often work together to develop test procedures they all support. Industry has a lot of expertise on how to do this. However, this process often leaves out non-industry participants who also have useful expertise such as utility, state, federal and non-

profit organization experts. On the other hand, these other experts often do not have enough time to be involved in the many detailed meetings needed to develop test procedures. I would recommend that at the beginning and middle of each process to develop a test procedure, a broad array of experts be invited to help define the needs and objectives at the beginning of the process, and assess how well these needs and objectives are being addressed in the middle of the process, so that the final test procedure is likely to meet the needs of most interested parties.

5. Please describe options on how to ensure that solid state lighting (SSL) technologies are pursued in a cooperative fashion with both the DOE and EPA and interested stakeholders.

**Response:** We believe that DOE has done an excellent job of working with industry to develop technologies, test procedures, and market support materials to help advance solid-state lighting. EPA and other stakeholders should be invited to identify issues that are not being adequately addressed and DOE should be asked to respond to these suggestions. As appropriate, some tasks should be delegated to EPA and other parties, but given all its work in this area, DOE is the logical agency to coordinate this effort.

6. Please describe the process your organization undertakes with the appliance makers to address consensus standards. What is your definition of a consensus standard?

**Response:** ACEEE works to develop consensus standards by working with a wide array of parties including manufacturers, their trade associations, states, utilities, environmental and consumer organizations and technical experts. We seek to obtain the best data on what is technically feasible and likely to be cost-effective to consumers. Based on these data we seek to develop workable draft proposals, share drafts with interested parties and solicit comments. Based on comments we receive, we modify the draft proposal and seek consensus of all parties. However, some parties want strong standards, others weaker standards, so consensus often requires compromise among the parties. We often seek creative solutions to bridge differences of opinion, such as creation of new product classes with different standard levels and development of multiple standards and effective dates (milder initial standards, stronger latter standards). In order to help drive this consensus process, it is usually helpful that some action will take place if consensus is not reached, such as a DOE rulemaking, state action, or Congressional action. Fear of these actions can often drive the critical compromises that are needed to reach consensus. In our view a consensus standard is one everyone can live with and that is considered superior by all to the alternative of not reaching agreement.