October 6th, 2008.

Richard H. Karney, P.E.
ENERGY STAR Program Manager
Department of Energy
Washington, DC 20585

Dear Mr. Karney,

Royal Window and Door Profiles appreciates the opportunity to provide comments and suggestions in regards to the new proposed revision of the ENERGY STAR® program as presented at the Stakeholder Meeting held in Washington.

We also would like to thank your organisation and staff for taking the time to inform and provide better understanding of the objectives and motivation of the new proposed qualification criteria.

Royal Window and Door Profiles has 7 extrusion facilities in North America and represents approximately 10% of the manufacturers participating in the NFRC program. Our customers, all window and sliding glass door manufacturers, have provided considerable feedback with regards to the new proposed criteria, and here are the main issues.

**General Comments:**

- We encourage the revision for new qualification criteria and more tightened performance levels for windows and sliding glass doors. The main goal of re-establishing ENERGY STAR® products as truly superior products should be the main focus, not all products of a manufacturer should be ENERGY STAR® qualified.

- Presently, ENERGY STAR® does not truly identify superior energy performance products and we found it hard for the consumer to differentiate the real efficient product from the regular product.

- Qualification criteria are more stringent which is OK and necessary, but the way to find out in which zones your product qualifies is complex for the consumers, therefore we would be very open to analyse any suggestions from the industry regarding any possible simplification on this matter.

- We totally agree with the IGU certification requirement.
- We would be supportive if the Air infiltration requirement would be back on the table.
  o Even if the impact on a thermal performance is very little, the Air Leakage performance will affect the integrity of the concept of the window, as well as protect the consumers.
  o We believe that Air Leakage has the same impact on comfort/discomfort as the SHGC, especially in the Northern region.

- DOE looking for separate criteria for Impact products.
  o We understand the possible drop (approx 30%) in DP rating if all window products are maintained together (impact and non-impact window products).
  o Even if the purpose of an Impact product is different, we don’t see the difference when it is for thermal performance requirement.
  o Therefore, following our analysis, we do not agree with this proposal as our researches have shown that we were able to qualify in the southern zones with the right IGU packages for our complete IMPACT line products.

- We believe that the DOE had make sure that they accurately evaluated the technology and market as well as the meaningful differentiation for the new revised proposed qualification criteria.

**Comments Qualification Criteria for 2009:**

- Understanding that the maximum 0.55 SHGC (2009 and 2013) to avoid customer discomfort and dissatisfaction is questionable, we don’t agree with this qualification criteria.
  o Some products with a higher rating will not even qualify because their SHGC is overstepping 0.55.
  o The Picture and Panoramic window systems tested at a dimension of 1200mm x 1500mm have a big SHGC, half of the time bigger then the cap of 0.55.
  o Same issue with the Sliding Glass door product 2000mm x 2000mm.
  o Great products will no longer qualify with that maximum cap.
    ▪ We measure Thermal Performance, not Discomfort.
  o Knowing that the U factor rises considerably with the SHGC, it is OK to put a cap to U factor but to implement one for the SHGC is very hard to understand.

- We strongly recommend that the DOE removes the maximum SHGC suggested for the Northern region, just like the IECC recommended in his prescriptive section 402.6
Comments Qualification Criteria for 2013:

- The estimated annual Energy savings on Phase 2 are very optimistic.
  - The cost-effectiveness is acceptable for 2009 but again very optimistic for 2013.
  - Payback of selling high-energy performance products is questionable.
    - We don’t evaluate the affordability of triple pane versus the payback of it on an energy savings assumption.
  - The utility rebate offered by different states will be very significant to compensate the actual real payback of the energy analysis.
  - The equation of the cost-effectiveness, considering a potential increase, is still an evaluation; the measuring of the Energy savings is very optimistic. We will require more time to calculate the impact on our products and receive feedback from our manufacturing partners.
    - Rapidly we might evaluate at 50% and less the real energy savings versus the suggested potential energy savings of the DOE.

- The 2013 qualification criteria would still have to be available for revision as nobody knows which technology will be available, and what will the energy market be.
  - ES5-ES4 will require triple pane or any new technologies that will provide same performance, therefore we found necessary another round of stakeholder for the 2013 criteria.
    - We strongly suggest that the “U” Value for the ES5 zones be changed from 0,28 to 0,30
    - We strongly suggest that the “U” Value for the ES4 zones be changed from 0,26 to 0,28

  - Regarding the 2013 revised criteria, we understand that they are based on assumptions to reflect changes in the building sector to come, so we agree to go forward with a four year revised criteria schedule including discussions and open mind for revision due to market changes and needs.

Royal Window and Doors Profiles is involved in most major North American window industry organisations and we are looking forward to partnering with the Department of Energy by providing expertise and input in the improvement and availability of energy efficient products.

Sincerely,

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