

November 30, 2018

Fenestration Canada would like to thank Natural Resources Canada (NRCan) for the opportunity to provide comments on the discussion paper. Fenestration Canada is committed to partnering with NRCan on the possible regulation to achieve a workable solution for all stakeholder.

Question 1a): Are there any foreseeable issues with the proposed scope?:

The national regulation needs to be in sync with building codes and provincial regulations. Without coordination with the provinces this national regulation will create significant inter-provincial trade issues for the industry. The regulation will also create international trade issues and the impact of these issues needs to be considered.

Annex 1 seems to bring confusion to what the regulation covers. The regulation needs to focus on products for low rise residential buildings. Annex 1 confuses the 3 and 5 story limits of the building code. Clear language on what is covered by the regulation and what is not is very important to avoid unintended loopholes.

The redesign costs for manufacturers will be a very large burden on the industry. Any manufacturer that does not have a triple option available now will face very large costs to comply with Tier 2.

The Tier 3 targets are not achievable with proven technology. The fenestration industry has used unproven technology in the past to achieve energy performance target and when they failed it has led to massive costs and law suits. Tier 3 targets that can be achieved with proven technology would gain much greater industry support and market penetration.

Question 1b): Which of the three scenarios presented above makes the most sense?

Scenario B would allow all door manufacturers more time to redesign their products and get their certification in place. Many door products would have considerable challenges to meet the energy requirements and the new designs would have to be tested for air, water and structural performance to comply with the building code as well.

Question 1c): What other scenario should be considered?

Appropriate performance requirements for skylight.

Question 2a): Are there any concerns in achieving the aspirational goals for these specific fenestration products?

- Residential windows
- Hinged doors with glazing
- Sliding glass doors
- Skylights

Tier 3 is unachievable with proven technology. Two options exist, first would be to relax the Tier 3 performance requirement to 1.0 W/m²C to allow for proven technology at an economic point that could be achieved by 2030, or second push the Tier 3 requirement out to 2035 to allow more time to prove new technologies.

Yes, all residential windows will have to be redesigned and sliding windows will have a very difficult time achieving the Tier 2 aspirational goals, i.e. accommodating triple glazed IG. Sliding windows represent a significant portion of the Canadian market and this concern needs to be considered in the final regulation.

Foam core swinging doors will need some work to comply at Tier 2, accommodating triples. Opaque wood swinging doors will have a very difficult time complying with Tier 1. Some consideration for wood doors needs to be taken into consideration.

Sliding doors will have a very difficult time complying with Tier 2. The redesign of these products with triple glazing will make them very heavy and difficult to install.

Skylights with the equivalent component as window will not be able to comply with the aspirational goals due to the physics of being heated from below. This fact needs to be taken into consideration for skylights.

Question 3a): Would stakeholders want to see all three tiers now in regulation (2022, 2025, and 2030), or 2022/2025, or just 2022?

Seeing all three Tiers in the regulation from the beginning will be beneficial to the industry because it will be clear where the regulation is going and give manufacturers the time needed to develop compliant products.

Question 3b): Would it be helpful if the first tier had no MEPS, only a labelling and reporting requirement?

No as this would lead to very difficult enforcement issues. Without a MEPS the incentive to comply would be weak and some manufacturers would delay compliance.

Question 3c): In your opinion, would augural standards help pave the way to development of next-generation window technology, or present a business risk (if the augural standards are not adopted into regulations)?

The augural standards will not help drive manufacturers to develop new products. The uncertainty would be too much risk and only lead to a wait and see attitude.

Question 4a) Do you agree with the pros and cons identified in this analysis as well as the analysis presenting the alignment of the metrics vis-à-vis the guiding principles?

The debate between U-factor and ER as a means of compliance is a controversial issue and Fenestration Canada will not be commenting as our members have differing positions. Fenestration Canada will encourage our members to submit their comments directly to NRCan,

Question 4b) If not, please provide suggestions for additional consideration.

None at this time.

Question 4c) Would stakeholders like to see additional non energy-related metrics on the EnerGuide label?

No non-energy related performance metrics should not be considered for this label. It would only create confusion in the market place between energy performance and structural performance.

Question 5a) Do stakeholders support a regulated EnerGuide type label for windows?

Initial discussions about this regulation suggested that energy performance certification will be required. All the certification programs require a label to be applied to the product. Any additional labeling requirement for Fenestration would not be welcomed by the industry. If a mandatory label was required and lead to a strong means of enforcing compliance and was enforced, the industry might be interested in discussing such a label, but significant industry consultation will be needed.

Question 5b) If so, which metrics and other information should be included in the label?

Regardless of the metric used for compliance both U-factor and ER values should be on the label. Also, the following would be very helpful for compliance with other codes and programs:

- Manufacturer's Identity
- Window Description
- Reference Number to trace the product
- Solar Heat Gain Coefficient (SHGC)
- Visible Light Transmission

- Air Leakage, but this would conflict with NAFS labeling requirements and should be optional.

Question 6a) Do you foresee any issues meeting the proposed compliance requirements in 2022 (Tier 1)?

The performance requirements should not be a problem, but the administrative labeling and reporting requirement will be significant change for the Fenestration industry. Significant consultation with industry is needed to develop and understand these reporting and labeling requirements.

Submitted on behalf of Fenestration Canada
Jeff Baker
Technical Consultant
Fenestration Canada