

# BEC

CONFERENCE™

FRAMING THE FUTURE

BUILDING ENVELOPE CONTRACTORS CONFERENCE

MAR 1-3, 2026

**INDUSTRY INSIGHTS,  
ADVOCACY & TECHNICAL  
ADVANCEMENTS FOR  
GLAZING PROFESSIONALS**





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# TOPICS

1. NGA Technical/Advocacy
2. School Security and Daylighting
3. Environmental Product Declarations, EPD Tool
4. Joint work with the Aluminum Extruders Council
5. Energy & Green Building Codes, Energy Star, and Tax Credits
6. Nerdy Questions We Have for You!

# 1. NGA TECHNICAL/ADVOCACY

## Controlled Environment

- Weather protection
- Ventilation
- View/Daylighting
- Fade resistance
- Energy efficiency
- Thermal comfort
- Solar gain
- Acoustics
- Structural Protection
- Privacy
- Human health
- Structural protection
- Security/Safety
- Fire/Egress

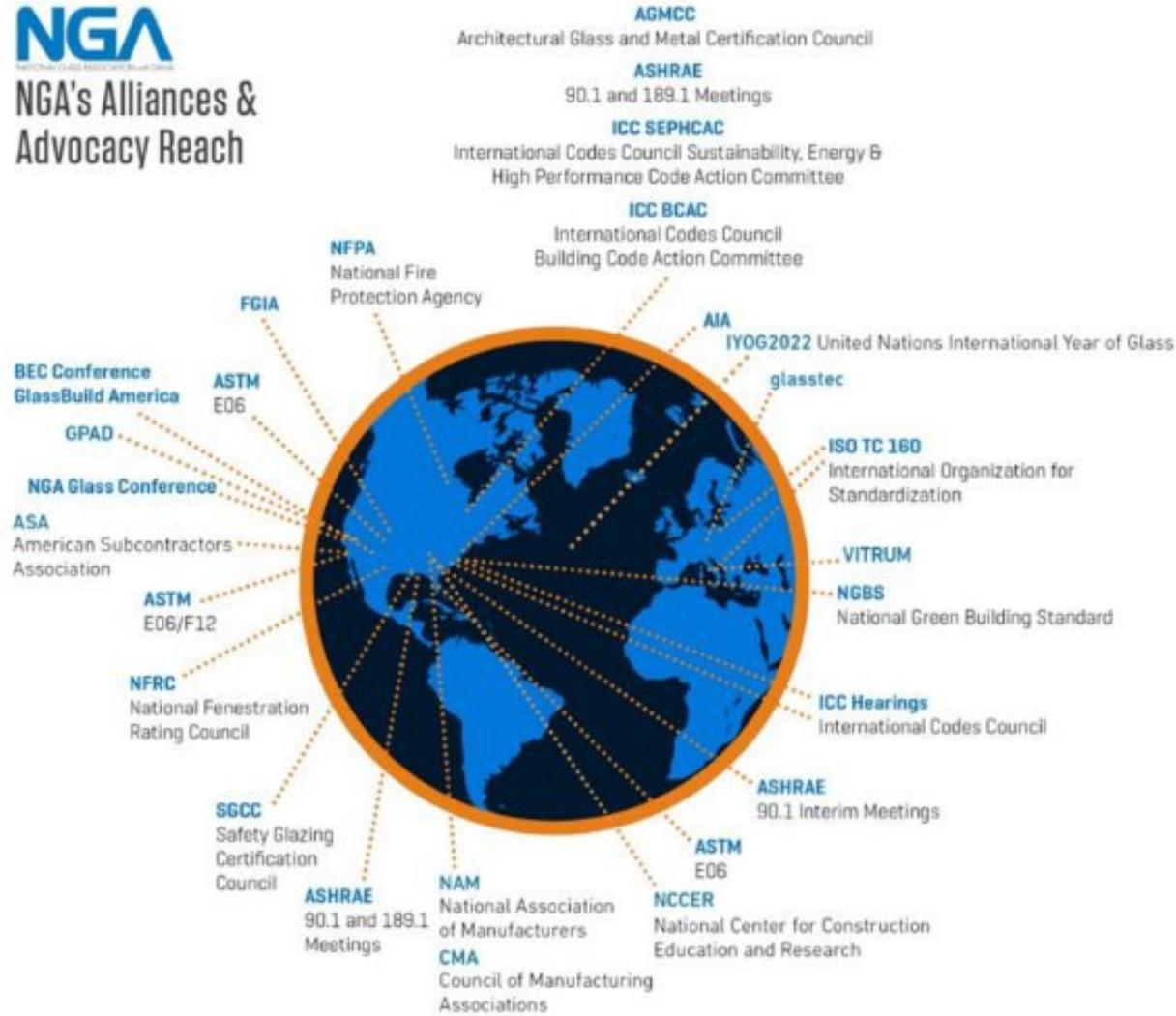


## Many Types

- Clear, low-iron, tint
- Low-e
- Heat treated
- Laminated
- Insulating
- Vacuum Insulated Glazing
- Thin glass
- Electrochromic, thermochromic
- Photovoltaic
- Decorative
- Patterned, fritted, etched
- Applied films



# NGA's Alliances & Advocacy Reach







- 80+ Glass Technical Papers
- 10+ AIA presentations
- 12 Manuals
- Design Guides
- Webinars
- MyGlassFab/MyGlassClass

<https://www.glass.org/advocacy>



Order now at [glass.org/store](https://www.glass.org/store) or scan the QR code to get started.



# NGA TECHNICAL/ADVOCACY

May 13-14, 2026  
Marriott Capitol Hill



## Priorities

- School Security
- Bird Safe Buildings
- Workforce Development
- Recyclability
- High-Performance Windows

## 2. SCHOOL SECURITY & DAYLIGHTING

As part of 2027 IBC cycle, we introduced code proposals to address:

- **School Security:**

Require windows, doors, and sidelights in school entrances to be rated in accordance with the new ASTM F3561 Standard Test Method for Forced-Entry-Resistance of Systems after Simulated Active Shooter Attack

- **Minimum natural lighting in classrooms:**

Require minimum natural lighting in classrooms to provide the basic “right to light” and a better learning environment.

- Also coordinating with AIA and Prof. Miro from UT Austin on related proposals in dorms, apartments.
- Close a loophole that some were exploiting to build windowless dorms in MI, TX, CA.

# NATURAL LIGHT CODE REQUIREMENTS



This is real.  
“The loneliness and claustrophobia caused by the four solid walls is unbearable.”  
– Karim, UT Austin student



But light and view  
can provide:

Mental Function  
& Memory  
**10-25%**  
BETTER



Students achieve  
**5-14%**  
HIGHER TEST SCORES  
and learn **20-26%**  
FASTER

# NATURAL LIGHT CODE REQUIREMENTS

## *Big Win for Healthy Buildings and Students!*

- Working together, NGA, AEC, AIA, and Miro successfully passed two proposals at the ICC committee action hearings in Oct to require natural light in schools, dormitories, and apartments.
  - Group R proposal passed 6-5.
  - Classrooms proposal passed 8-2.
- But not done yet – we still have to defend these proposals in the final hearing in April, but a great step forward!



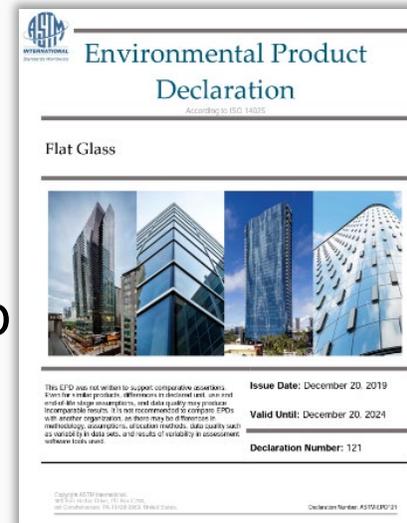
# SCHOOL SECURITY

- On the other hand, the school security proposal and reference to ASTM F3561 was disapproved and will have to wait until the next code cycle.
- Lots of sympathy on the need to address the issue, but code officials, designers, owners all reluctant to take responsibility on anything specific.
- Note that it took three cycles to get the school natural proposal this far ... the codes take time to accept new concepts and standards, especially for something controversial.



# 3. ENVIRONMENTAL PRODUCT DECLARATIONS

- **Environmental Product Declarations (EPDs)** - standardized and transparent way to understand environmental impact of products.
  - Most common metric: **global warming potential (GWP)**, also called **embodied carbon** or **product carbon footprint (PCF)**
- Last year, we reported how we were selected for a \$2.1M EPA grant to help the industry provide EPDs for both primary and fabricated glass ... but the grant program was then “paused” under an executive order.
- Unfortunately, the grant was “DOGE’d” later that spring, and then the One Big Beautiful Bill Act officially canceled the program in July.
- But that does not mean the demand for EPDs is lessening ...



# CONTINUED DEMAND FOR EPDS

- Architects / GCs continuing to add to specifications or make a last-minute request.
- “Buy Clean” policies remain at state and local level.

*New!*

- **New Mexico** just passed US’s first rebate program for purchasing low-carbon construction materials, including glass and aluminum.
- **Boston “Net Zero Carbon Zoning policy”** for new buildings > 20,000 ft<sup>2</sup> and renovations > 50,000 ft<sup>2</sup>.
- **Buy Clean California and CALGreen** requirements for state-funded projects, large offices, schools
- **Buy Clean Colorado** for state-funded projects, tax credits for private projects.
- **IgCC / ASHRAE 189.1** – just last month, voted to increase requirement for product-specific EPDs
- **New York State** looking at new requirements
- **LEED v5** now finalized. Points for providing product-specific EPDs, more points for showing a 20% reduction in embodied carbon.

# EPD GENERATOR TOOL



NATIONAL GLASS ASSOCIATION with GANA



EPD Industry Survey

## 4. COLLABORATION

- Working together with the Aluminum Extruders Council (AEC)
  - Natural lighting proposals for schools
  - EPD availability
  - Recycling demonstration projects
  - Embodied carbon considerations for building projects

# EPDS FOR ALUMINUM EXTRUSIONS



- *THE industry association for NA extruders*
- *Members produce ~60% of extrusion in the U.S. and Canada*
- *Focused on :*
  - *End market education*
  - *Sustainability*
  - *Workforce Development*
  - *Fair trade*

## AEC and EPDs

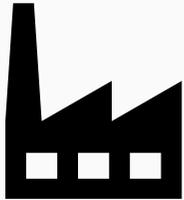
- 2015: first Industry Average EPD
- 2022: Industry Average updated
  - 100 presses, 38% of production

Today's user - more demanding expectations

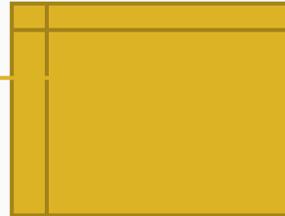
- Site specific data, not an average
- “Product” specific data
- Contemporary data; no 5 year shelf life

# EPDS FOR ALUMINUM EXTRUSIONS

## The Tool



Extruder completes on-line template with input/output data for their facility and product(s)



### Status:

- Tool released mid-2025
- 12 Extruders using tool
- Initial EPDs being verified



Developer submits resulting data for 3<sup>rd</sup>-party certification

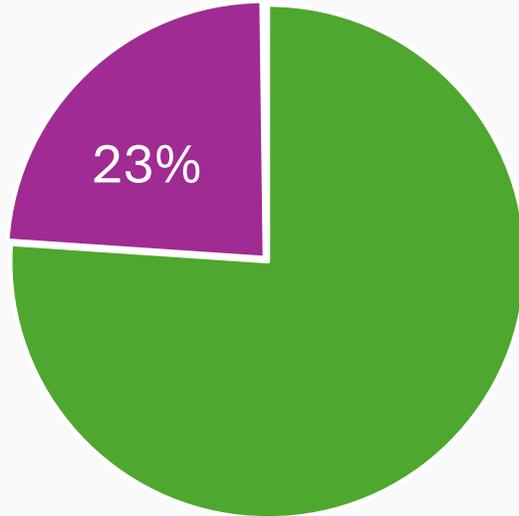


Tool developer audits data for quality, reasonableness; creates print data

Developer provides PCF and/or EPD data to extruder for their **internal** use  
SCS provides **certified** environmental footprint data to extruder for **external** use

# EPDS FOR ALUMINUM EXTRUSIONS

What we knew ('22 EPD) ...  
**GWP: 7.87 kg CO<sub>2</sub>e/kg\***  
 (mill finish)



■ Raw Material ■ Extrusion ■ Other

... what we now can do

- Provide better data – contemporary, site and product specific
- Support better decision making via modeling alternatives
  - E.g.: use of Hydro CIRCAL billet at 1.12-1.54 kg CO<sub>2</sub>e/kg would likely **reduce overall embodied carbon by >50%**

*Delivering* this value to the customer likely requires EACs(Environmental Attribute Certificates)

# EPDS FOR ALUMINUM EXTRUSIONS



ALUMINUM EXTRUDERS COUNCIL



Aluminum Sustainability  
Information



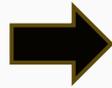
Industry Wide EPD  
and LCA Information



Find an AEC Extruder

# END-OF-LIFE / CIRCULARITY STUDIES

- Quantify glass and aluminum recovery in real façade or building deconstruction projects. Document lessons regarding what to do / what not to do for successful projects.



Recovery and recycling by Infinite Recycled Technologies (thank you!)  
Third-party LCA expertise from Digne / Sophie Pennetier

# GLASS RECYCLING

- **World of Glass Map**

- Updated data for North American glass fabrication & float plants
- New category: Recycling Plants
  - North American recyclers
  - Info on types of materials to be accepted
  - Proximity to float/fabrication plants

→ [www.Worldofglassmap.com](http://www.Worldofglassmap.com)



## 5. ENERGY & GREEN BUILDING CODES

Last year, I predicted the changes in Washington would lead to a split in **National vs. Local** activity:

- *At the national level*, continued small incremental advancements in the national model energy codes, similar to the last 20+ years,
- +
- *At the state or city level*, increase in local activity and variation as the federal government takes a step back.
  - Less in red states
  - More in blue states and cities (including blue cities in red states)
- And yes, we are seeing this, with a few twists ...

# ENERGY & GREEN BUILDING CODES

## *At the National level,*

- ASHRAE 90.1-2025 being published, and in final voting rounds for the 2027 IECC.
- Incremental improvements that we supported – small changes in U, SHGC that are reasonable and will promote:
  - Increased use of thermally broken frames, warm edge spacers, gas fill in all zones.
  - 4<sup>th</sup> surface low-e, higher performance thermal breaks, and some triple glazing in northern zones.

# ENERGY & GREEN BUILDING CODES

## *At the Local level,*

- New energy codes going into effect in **California, Colorado, Illinois, and Minnesota**, plus the aggressive energy and carbon codes already in effect in **Massachusetts / Boston**.

*... but local activity can work the other way too ...*

- **Missouri** proposing to retract their residential and commercial energy code *backwards* all the way to the 2009 IECC. Similar bill died last session, but this current bill has passed out of committee.
- **California** put a pause on local communities adopting residential reach codes more stringent than state code for next 6 years, with some exceptions. Residential only.

# NEW ATTACKS ON WINDOW AREA

*With all the activity, we can't let down our guard ...*

- Just in the last two weeks, I have encountered **two new attacks on window area** that we need to fight against:
  - One proposal would cut in half the allowance for window area in buildings with shared walls (e.g. rowhouses).
  - Another wants to revisit commercial envelope backstops in the modeling paths of ASHRAE 90.1 specifically to target glass buildings, even if demonstrate equivalent energy performance.
- We will be on the front lines defending against these attacks that are counter to high performance buildings and occupant health and well-being.



# WHAT ABOUT ENERGY STAR AND TAX CREDITS?

- Energy Star program was under attack last year, proposed to be dismantled by the administration, and Energy Star staff were moved to other areas.
- However, there was strong pushback by building owners and industry who use the program for marketing, tax credits, utility incentives.
- As a result, there was bipartisan Congressional support to maintain and even increase funding for Energy Star in FY2026.  
The program operations are now being rebuilt.



# WHAT ABOUT ENERGY STAR AND TAX CREDITS?

- On the other hand, the One Big Beautiful Bill Act terminated the **25C** and **179D** residential and commercial energy tax credits that were based on Energy Star.
- There are some local utility incentives for commercial building energy efficiency, at a whole building level.
- Through the Partnership for Advanced Window Solutions, we are also working on a utility incentive specifically for commercial windows in Minnesota.

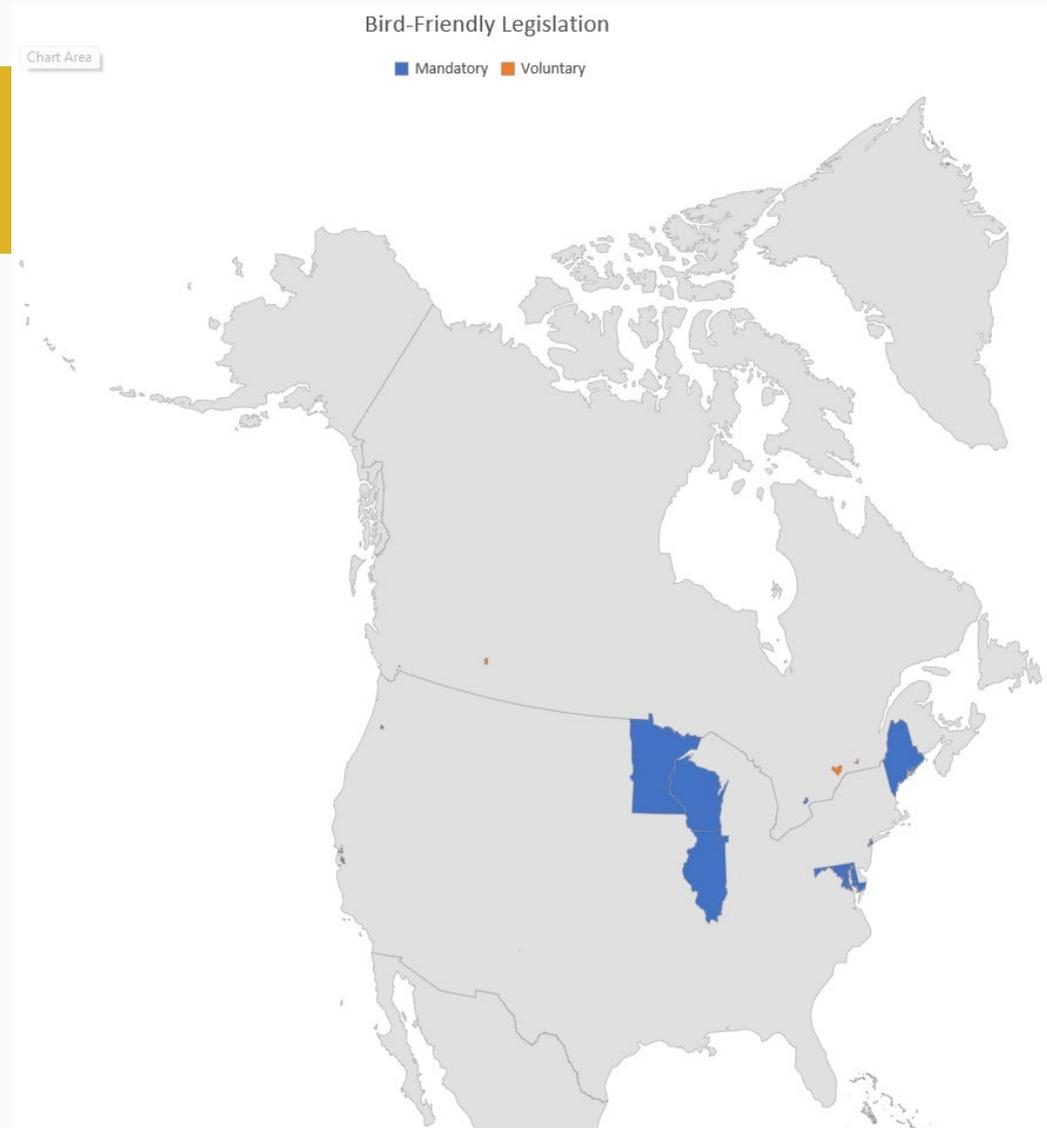


# BIRD FRIENDLY GLAZING IN GREEN BUILDING CODES

- Bird-Friendly Glazing requirements continue to expand in local city ordinances, for state-owned buildings, etc.
- **NEW!** To help promote more uniformity, we successfully introduced new bird-friendly glazing requirements in ASHRAE 189.1-2026 and the 2027 International Green Construction Code.
- Required on 90% of vertical fenestration below 100 ft, glazed corners, skywalks, glass railings, vegetated roofs, etc.
- Prescriptive criteria for glazing including opaque, etched, and UV markers. Essentially 2x2 rule but written to provide flexibility for dots, lines, random patterns.
- Testing threat factors *not* included, but can be approved by AHJ
- ASTM E06.51 task group also working on an ASTM standard practice based on the NGA Design guide .



# BIRD FRIENDLY GLAZING



<https://www.glass.org/member-only-legislation-tracking-resources>

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