NATIONAL GLASS ASSOCIATION | ADVOCACY

Window Recyclability: Resource Efficiency & Supply Chain Resilience

The request:

- Support investment in architectural flat glass recycling infrastructure [1] to reduce landfill waste, create jobs, and expand domestic manufacturing capacity.
- Provide tax incentives, policy support, and design guidelines to encourage recycling of glass from buildings undergoing renovation or demolition, beginning with government buildings as a leading example.
- Incentivize investment to improve transportation logistics and reduce costs, helping expand today's localized flat glass recycling ecosystem.
- Support research and development to improve flat glass recycling classification, quality, and recovery rates.
- Work with industry stakeholders to develop a coordinated national approach to reduce landfilling of glass and strengthen recycling systems.

Glass is infinitely recyclable.

Glass can be infinitely recycled[1] in the flat glass and bottling operations, so continued reuse further supports efficiency and resilience.

Glass recycled materials can be used in a wide variety of industries from recycling back into the melt furnace to make new windows, glass containers (jars & bottles), road grade, fiberglass, reflective highway paint, landscaping products, countertops, and coastal restoration materials.

Recycled glass is valuable.

Recycled glass, called "cullet," helps reduce the cost of glass manufacturing by:

- Reducing the need for raw material mining.
- Reducing trucking and related emissions, as making one ton of glass from raw materials, called batch, requires 20% more input materials than producing one ton of glass using only cullet.[2]
- Improving air quality – Batch material and firing fuels both off-gas during the glass-making process. Increased cullet usage significantly reduces the emissions from production.[3]
- Reducing gas usage – Cullet is easier to melt than batch, so lower furnace fuel is required.

Recycling glass supports domestic supply – cullet should be considered a viable, reusable, and sustainable domestic material supply chain.

- Processing and disposing of glass is costly, while landfill expansions require significant capital and face permitting challenges. Recovered glass can instead serve as a valuable domestic material resource.

The glass recycling industry creates jobs and economic value.

Glass recycling is inherently localized, supporting jobs in collection, processing, and manufacturing. These activities contribute to local economies, generate tax revenue, and support regional economic growth.

Flat Glass recycling is challenging and requires support.

Economics and technical barriers present challenges for glass recycling.

- Freight costs typically drive recycling decisions. Long hauls of a heavy product often make recycling a cost challenge.
- Contamination from even trace amounts of certain elements can have dramatic impacts on architectural flat glass quality.
- Sorting and cleaning of cullet is expensive.

These challenges highlight the need for targeted investment, incentives, and coordinated policy support to enable scalable and economically viable recycling solutions.

Higher recycled material content is a key element for future efficiency and resiliency efforts for the glass industry.

Representing 1,900 company members, the National Glass Association (NGA) is the largest trade association serving the glazing and glass building products industry. We develop standards, create technical resources, and promote and advocate for glass in the built environment. Learn more at glass.org/advocacy. For further information on glass industry recyclability efforts, please contact NGA Technical Staff at technicalsvcs@glass.org.

NATIONAL GLASS ASSOCIATION | ADVOCACY

Window Recyclability: Resource Efficiency & Supply Chain Resilience

References:

1. https://recyclenation.com/2010/11/facts-glass-recycling/
2. https://members.glass.org/cvweb/cgi-bin/msascartdll.dll/ProductInfo?productcd=CIRCULARITYRECYCLING
3. https://www.techsciresearch.com/report/united-states-fiberglass-market/2990.html
4. https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/glass-material-specific-data
5. https://www.gsa.gov/governmentwide-initiatives/climate-action-and-sustainability/center-for-emerging-building-technologies/published-findings/building-envelope/lightweight-secondary-windows
6. https://brandongaille.com/glass-industry-statistics/

The National Glass Association (NGA) represents America's building glass manufacturers, suppliers, fabricators, and installers. NGA's 1,900 member companies employ 71,000 Americans who produce and install glass for homes and commercial buildings and who generate more than $10.3 billion in annual revenue. NGA promotes and defends the use of glass in the built environment. Our advocacy and technical initiatives respond to the relentless, ever-changing challenges to our industry.

Representing 1,900 company members, the National Glass Association (NGA) is the largest trade association serving the glazing and glass building products industry. We develop standards, create technical resources, and promote and advocate for glass in the built environment. Learn more at glass.org/advocacy. For further information on glass industry recyclability efforts, please contact NGA Technical Staff at technicalsvcs@glass.org.