

*Thirsty*

**THURSDAY**

QUENCH YOUR THIRST FOR **TECHNICAL KNOW-HOW**

*Thirsty*  
**THURSDAY**

QUENCH YOUR THIRST FOR  
**TECHNICAL KNOW-HOW**

## How NGA Member Companies Benefit from the EPA Grant



**Urmilla Sowell**  
VP, Advocacy & Technical Services  
National Glass Association



**Tom Culp**  
Energy & Green Codes Consultant  
Birch Point Consulting

## NGA UPCOMING EVENTS

**GlassBuild America**  
Sept 30 – Oct 2, 2024

**Glazing Executives Forum**  
Sept 30, 2024

**NGA Glass Conference: Carlsbad**  
Feb 3-6, 2025

**BEC Conference: Las Vegas**  
Mar 2-4, 2025



**IT'S  
DALLAS  
HERE**



**THE BIGGEST GLASS  
& FENESTRATION  
EVENT OF THE YEAR**



**GlassBuild**  
**A M E R I C A**

THE GLASS, WINDOW & DOOR EXPO

**9.30 - 10.02**

**DALLAS, TEXAS**

KAY BAILEY HUTCHISON  
CONVENTION CENTER

**GLASSBUILD.COM**

*Thirsty*  
**THURSDAY**

**NGA**  
NATIONAL GLASS ASSOCIATION

QUENCH YOUR THIRST FOR  
**TECHNICAL KNOW-HOW**

# *How NGA Member Companies Benefit from the EPA Grant*



**Urmilla Sowell**  
VP, Advocacy & Technical Services  
National Glass Association



**Tom Culp**  
Energy & Green Codes Consultant  
Birch Point Consulting

**NGA**  
NATIONAL GLASS ASSOCIATION

# Inflation Reduction Act (IRA) of 2022

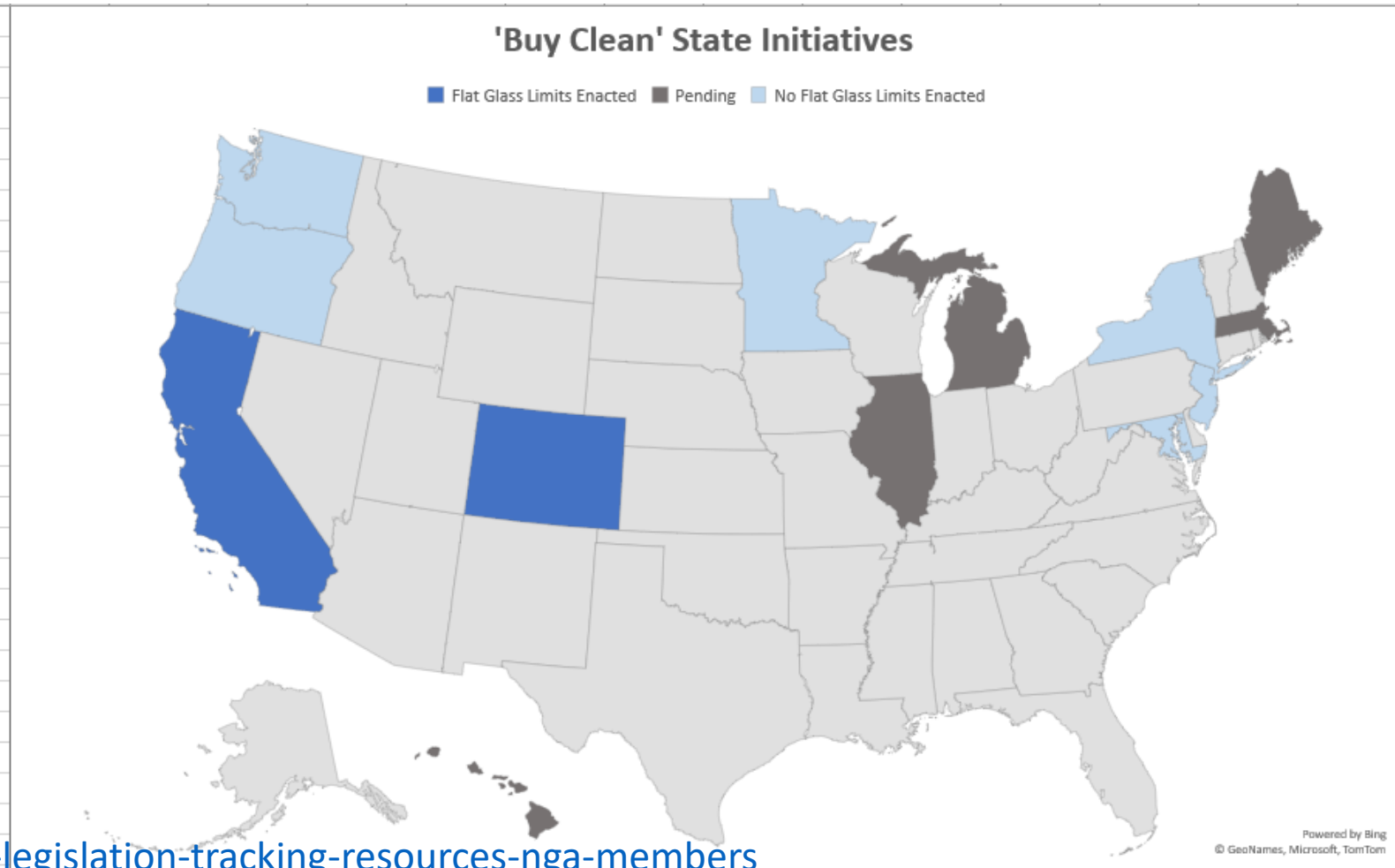
- Environmental Protection Agency (EPA) support for Development of Environmental Product Declarations (EPD)
- IRA provided over \$2B to GSA for procurement of low embodied carbon construction materials, with first priorities on concrete, steel, **flat glass**, and asphalt.
- As part of overall initiative, EPA also provided funding to develop material labeling program and provide EPD assistance grants to industry.
- Initial round of \$160M funding for up to 40 grants.



# NGA Member Only site

<https://www.glass.org/user/login>

| From 'US Buy Clean' | State (Geo.)  | "Buy Clean" Status           |
|---------------------|---------------|------------------------------|
| CA                  | California    | Flat Glass Limits Enacted    |
| CO                  | Colorado      | Flat Glass Limits Enacted    |
| HI                  | Hawaii        | Pending                      |
| IL                  | Illinois      | Pending                      |
| ME                  | Maine         | Pending                      |
| MD                  | Maryland      | No Flat Glass Limits Enacted |
| MA                  | Massachusetts | Pending                      |
| MI                  | Michigan      | Pending                      |
| MN                  | Minnesota     | No Flat Glass Limits Enacted |
| NJ                  | New Jersey    | No Flat Glass Limits Enacted |
| NY                  | New York      | No Flat Glass Limits Enacted |
| OR                  | Oregon        | No Flat Glass Limits Enacted |
| WA                  | Washington    | No Flat Glass Limits Enacted |



<https://www.glass.org/news/2024/new-legislation-tracking-resources-nga-members>

EPA GRANTS =160M

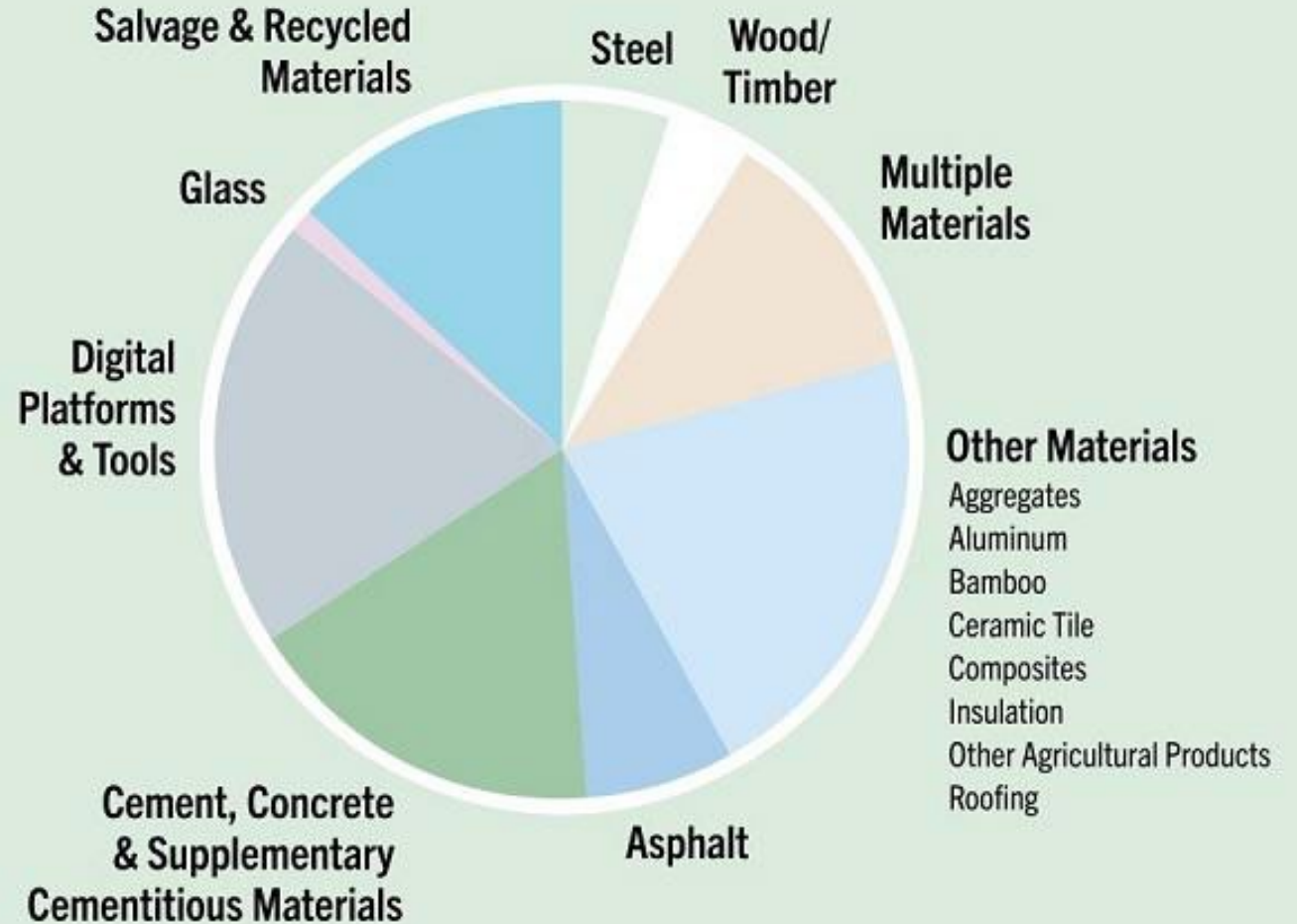
NGA - \$2.1 million

38 grantees selected  
14 material types

NGA is the **ONLY** glass  
representative

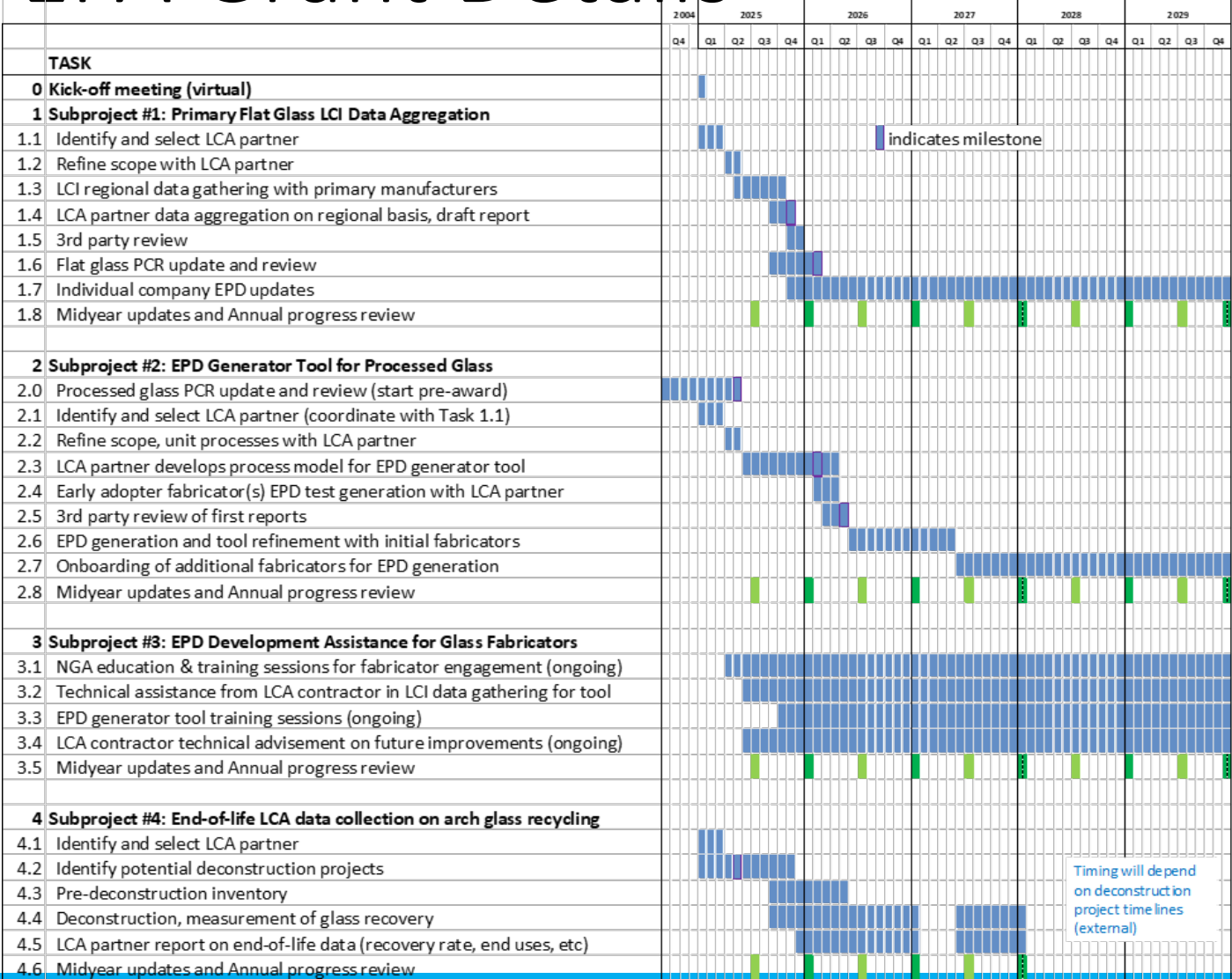
# Material & Product Categories for Grant Selections

Reducing Embodied Greenhouse Gas Emissions  
for Construction Materials\*



\*Selections are contingent upon completion of legal and administrative requirements.

# EPA Grant Details



## NGA grant application:

- “Architectural Glass EPD Development to Reduce Embodied Greenhouse Gas Emissions for Construction Materials and Products”
- **\$2.1M** over 5 years
- Highlights what our industry has already done with primary flat glass EPDs, complexity and diversity of the industry with regards to processed glass products, industry needs and issues.



# Architectural Glass EPD Development Grant Proposal

## Four subprojects:

### 1. **Primary Flat Glass LCI Data Aggregation** (\$333k)

- Provide support to improve granularity of primary flat glass LCI data, as well as PCR update.

### 2. **EPD Generator Tool for Processed Glass** (\$379k)

- Develop robust generator tool capable of producing both LCA data reports and full 3rd-party reviewed EPDs for processed glass products in conformance with ISO standards.

### 3. **EPD Development Assistance for Glass Fabricators** (\$1.2M)

- Provide technical, educational, and financial assistance to glass fabricator members for EPD development.

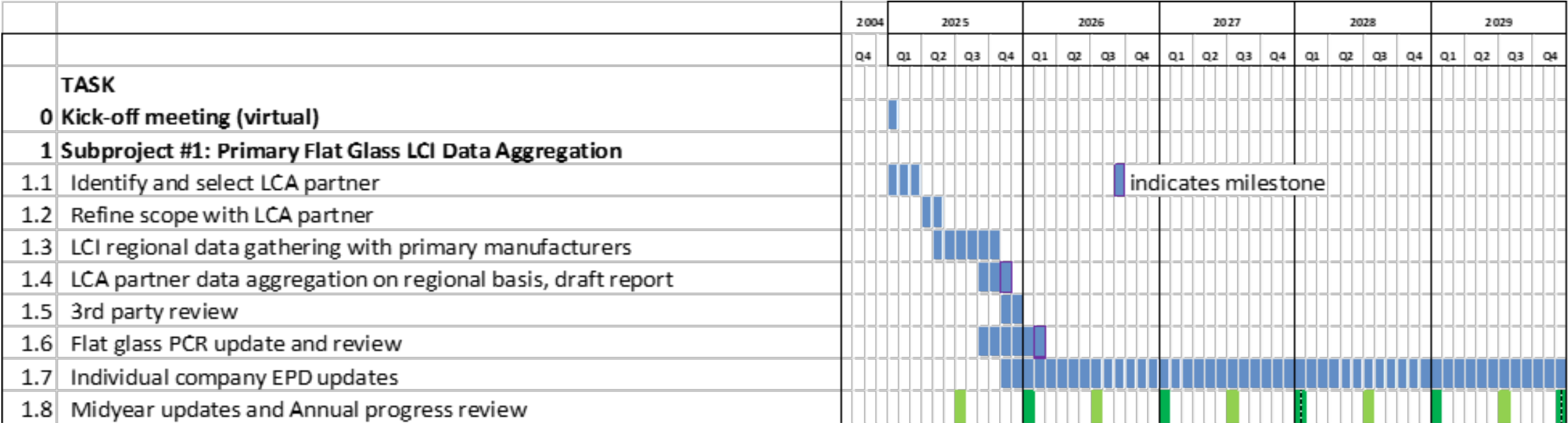
### 4. **End-of-life LCA data collection on architectural glass recycling** (\$226k)

- To improve the understanding about glass end-of-life and quality of LCA part D data, quantify glass recovery rates and track end-use outcomes for recycled glass on 1-3 deconstruction projects.

# EPA Grant Details

## Subproject 1. Primary Flat Glass LCI Data Aggregation (\$333k)

- Provide support to improve granularity of primary flat glass LCI data, as well as PCR update.



# EPA Grant Details

## ***Subproject 1. Primary Flat Glass LCI Data Aggregation (\$333k)***

*Eligible Project Type under Section I.C. and Appendix B of the NOFO:*

- A. Robust Data for EPDs
- B. Robust PCR Standard Development, PCR Update
- C. EPD Development and Verification

# EPA Grant Details

## Subproject 2. EPD Generator Tool for Processed Glass (\$379k)

- Develop robust generator tool capable of producing both LCA data reports and full 3rd-party reviewed EPDs for processed glass products in conformance with ISO standards.

|  |  | 2004 | 2025 |    |    |    | 2026 |    |    |    | 2027 |    |    |    | 2028 |    |    |    | 2029 |    |    |    |
|--|--|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
|  |  | Q4   | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |
| <b>TASK</b>  |  |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| <b>2 Subproject #2: EPD Generator Tool for Processed Glass</b> |  |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.0  | Processed glass PCR update and review (start pre-award)          | █    | █    | █  | █  | █  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.1  | Identify and select LCA partner (coordinate with Task 1.1)       |      | █    | █  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.2  | Refine scope, unit processes with LCA partner                    |      |      | █  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.3  | LCA partner develops process model for EPD generator tool        |      |      |    | █  | █  | █    | █  | █  | █  | █    | █  | █  |    |      |    |    |    |      |    |    |    |
| 2.4  | Early adopter fabricator(s) EPD test generation with LCA partner |      |      |    |    |    | █    | █  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.5  | 3rd party review of first reports                                |      |      |    |    |    |      | █  | █  |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 2.6  | EPD generation and tool refinement with initial fabricators      |      |      |    |    |    |      |    | █  | █  | █    | █  | █  | █  | █    | █  | █  | █  | █    | █  | █  | █  |
| 2.7  | Onboarding of additional fabricators for EPD generation          |      |      |    |    |    |      |    |    |    |      |    |    | █  | █    | █  | █  | █  | █    | █  | █  | █  |
| 2.8  | Midyear updates and Annual progress review                       |      |      |    | █  |    | █    |    | █  |    | █    |    | █  |    | █    |    | █  |    | █    |    | █  |    |

# EPA Grant Details

## ***Subproject 2. EPD Generator Tool for Processed Glass (\$379k)***

*Eligible Project Type under Section I.C. and Appendix B of the NOFO:*

B. Robust PCR Standard Development, PCR update

C. Robust Tools & Resources to Support & Incentivize Development and Verification of EPDs



# EPA Grant Details

## ***Subproject 3. EPD Development Assistance for Glass Fabricators (\$1.2M)***

- Provide technical, educational, and financial assistance to glass fabricator members for EPD development.

|  |   | 2004 | 2025 |    |    |    | 2026 |    |    |    | 2027 |    |    |    | 2028 |    |    |    | 2029 |    |    |    |
|--|---|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
|  |   | Q4   | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |
| <b>TASK</b>  |   |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| <b>3 Subproject #3: EPD Development Assistance for Glass Fabricators</b> |   |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.1  | NGA education & training sessions for fabricator engagement (ongoing)   |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.2  | Technical assistance from LCA contractor in LCI data gathering for tool |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.3  | EPD generator tool training sessions (ongoing)                          |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.4  | LCA contractor technical advisement on future improvements (ongoing)    |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 3.5  | Midyear updates and Annual progress review                              |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |

# EPA Grant Details

## ***Subproject 3. EPD Development Assistance for Glass Fabricators (\$1.2M)***

*Eligible Project Type under Section I.C. and Appendix B of the NOFO:*

D. EPD Development and Verification – Technical assistance and reimbursement for EPD development

# EPA Grant Details

## **Subproject 4. End-of-life LCA data collection on architectural glass recycling (\$226k)**

- To improve the understanding about glass end-of-life and quality of LCA part D data, quantify glass recovery rates and track end-use outcomes for recycled glass on 1-3 deconstruction projects.

|   | 2004 | 2025 |    |    |    | 2026 |    |    |    | 2027 |    |    |    | 2028 |    |    |    | 2029 |    |    |    |
|---|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
|   | Q4   | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |
| <b>TASK</b>   |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| <b>4 Subproject #4: End-of-life LCA data collection on arch glass recycling</b> |      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 4.1 Identify and select LCA partner   |      | ■    | ■  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 4.2 Identify potential deconstruction projects                                  |      | ■    | ■  | ■  | ■  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |
| 4.3 Pre-deconstruction inventory  |      |      |    |    | ■  | ■    | ■  | ■  | ■  |      |    |    |    |      |    |    |    |      |    |    |    |
| 4.4 Deconstruction, measurement of glass recovery                               |      |      |    |    | ■  | ■    | ■  | ■  | ■  | ■    | ■  | ■  | ■  | ■    | ■  | ■  | ■  |      |    |    |    |
| 4.5 LCA partner report on end-of-life data (recovery rate, end uses, etc)       |      |      |    |    |    | ■    | ■  | ■  | ■  | ■    | ■  | ■  | ■  | ■    | ■  | ■  | ■  |      |    |    |    |
| 4.6 Midyear updates and Annual progress review                                  |      |      | ■  |    |    | ■    |    | ■  |    | ■    |    | ■  |    | ■    |    | ■  |    |      |    |    |    |

Timing will depend on deconstruction project timelines (external)

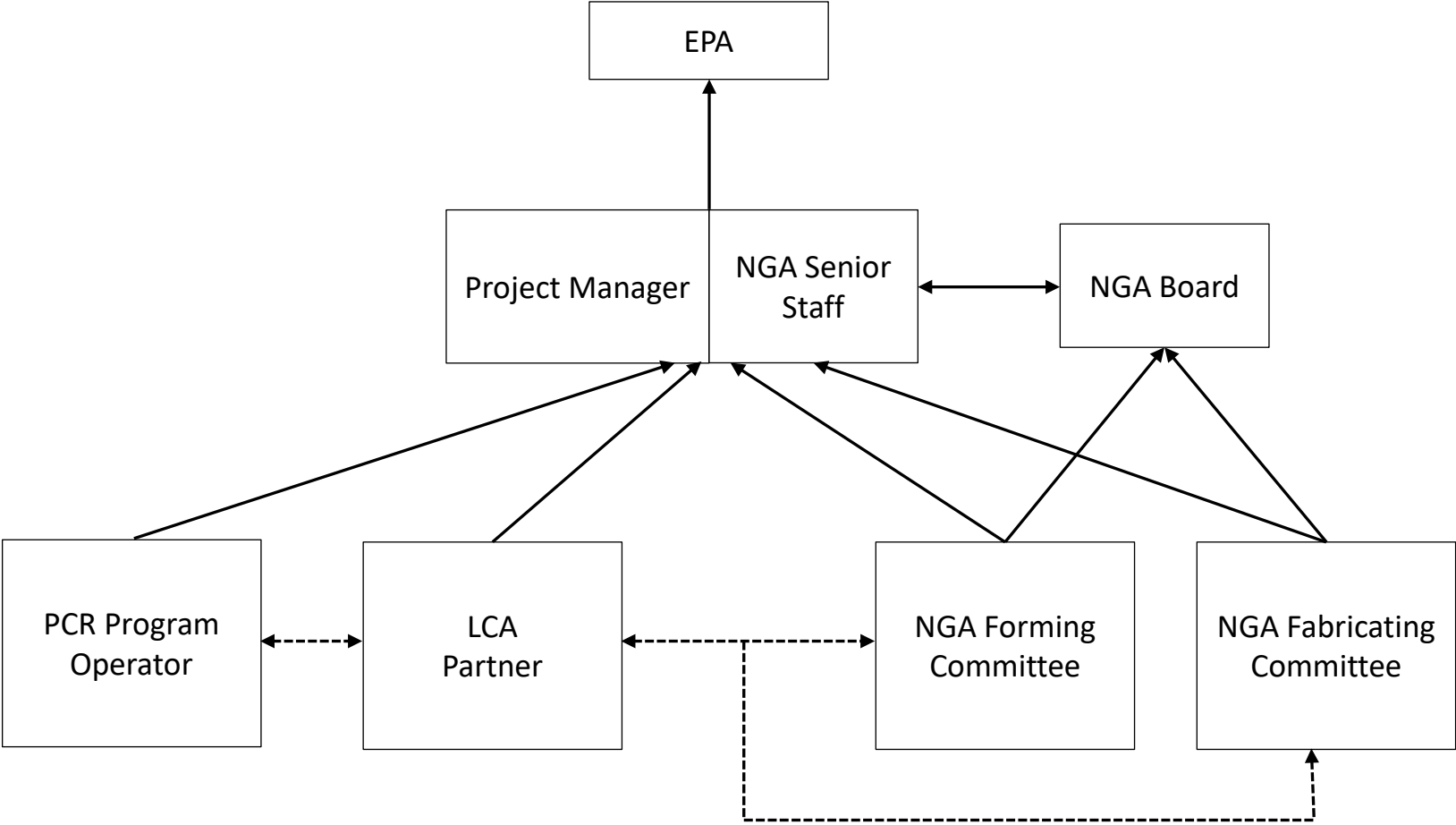
# EPA Grant Details

***Subproject 4. End-of-life LCA data collection on architectural glass recycling (\$226k)***

*Eligible Project Type under Section I.C. and Appendix B of the NOFO:*

A. Robust Data for EPDs: salvaged material data, recovery rates for recycling

# EPA Grant Details





*Thirsty*  
**THURSDAY**

**NGA**  
NATIONAL GLASS ASSOCIATION

QUENCH YOUR THIRST FOR  
**TECHNICAL KNOW-HOW**

# *How NGA Member Companies Benefit from the EPA Grant*



**Urmilla Sowell**  
VP, Advocacy & Technical Services  
National Glass Association  
usowell@glass.org



**Tom Culp**  
Energy & Green Codes Consultant  
Birch Point Consulting  
culp@birchpointconsulting.com

**NGA**  
NATIONAL GLASS ASSOCIATION