

# **Covered Building Material Reporting (Morning Session)**

**Technical Meeting October 30, 2025** 



### **Meeting Goals**

- Provide updates on the ongoing work by California Air Resources Board (CARB) staff to develop a regulation focused on reporting the embodied carbon associated with building materials.
- Share draft materials for feedback, including reporting tools, templates, and regulatory concepts.
- Invite technical input from subject matter experts on data collection methods, alignment with existing reporting requirements, and opportunities for improvement.



# **Technical Meeting Agenda Covered Building Material Reporting**

### I. Previous Public Engagements

- Program Timeline
- Summary of Prior Workshops and Meetings
- Baseline Estimation Recap

### II. Background

- Statutory Requirements
- Related Programs
- Supply Chain Considerations

### III. Proposed Reporting Requirements

- Regulated Reporting Entities and Reporting Timeline
- Reporting Requirements and Methods
- IV. Facility and Importer Reporting Tools
- V. Open Discussion and Feedback

**Afternoon - Covered Projects Reporting** 



Embodied Carbon Program

# I. Previous Public Engagements



# Assembly Bill (AB) 2446 and AB 43 Statutory Requirements and Dates

### By December 31, 2026

Adopt a framework for measuring the average carbon intensity of materials used in the construction of new buildings

### By December 31, 2028

Develop a strategy to achieve a 40% net reduction in greenhouse gas (GHG) emissions of building materials

### **By December 31, 2035**

Achieve 40% net greenhouse gas reduction target



### **Embodied Carbon Program (AB 2446 and AB 43)**

Tentative Program Timeline



Develop Comprehensive Strategy by December 31, 2028

Achieve a 40% Reduction in Net GHG Emissions by December 31, 2035



# Health and Safety Code (HSC) Requirements Covered Projects and Building Materials Reporting

- HSC § 38561.3 (c)(1): "A requirement for the submission by an entity undertaking the construction of a project with a minimum size of five new residential units or 10,000 square feet of nonresidential building space of a life-cycle assessment [...] to determine the carbon intensity of the materials used in new residential and nonresidential buildings"
- HSC § 38561.3 (c)(2): "A requirement for the submission by the manufacturer of a building material of an Environmental Product Declaration [...] or similarly robust material life-cycle assessment"
- HSC § 38561.3 (i)(5): "Manufacturers of building materials shall be required to report data to the state board to ensure that their products comply with applicable reduction targets in accordance with reporting and compliance requirements that will be established by the state board"



### **Public Engagements**

### **Kick-Off Workshop**

#### September 2024

- Introduced building embodied carbon concepts
- Consulted with the public about key topics in developing the framework, including the structure of a potential reporting system for building material embodied carbon

# Reporting & Baseline Workshop

#### March 2025

- Reviewed the statutory requirements
- Introduced staff concepts for:
  - Reporting by manufacturers and by project owners,
  - Baseline emissions quantification and
  - Emissions accounting

#### **Baseline Technical Meeting**

#### September 2025

- Discussed staff baseline concepts
- Released draft staff baseline methodology
- Released draft baseline assessment tool



### **Recap: Proposed Reporting Entities**



### Manufacturers & Importers of Building Materials

- Production Quantity, Emissions Data, Cost Data, Data Quality Standards, and Background Data
- HSC § 38561.3 (c)(2), HSC § 38561.3 (i)



### **Covered Projects (Project Owners)**

- General Project and Building information, Materials -Quantity, Suppliers and Cost
- Whole Building Life Cycle Assessment (WBLCA) for larger non-residential projects
- HSC § 38561.3 (c)(1)



# **Recap: Staff Proposal for Baseline Estimation**

- Baseline emissions would be determined using economic allocation methodology, which distributes emissions based on market value rather than material quantity and carbon intensity
- The economic allocation method uses economy-wide, commodity-based data, classified by North American Industry Classification System (NAICS) codes, to apportion greenhouse gas (GHG) emissions based on their relative market value
- Emissions are allocated using sector-specific emissions inventories



California Building Material Economic Demand (\$)

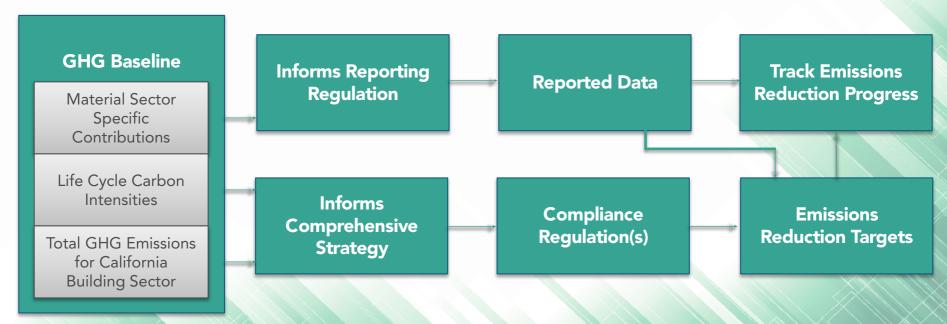
Emissions per Economic Output (MT CO<sub>2</sub>e/\$)

California Building Material Emissions (MT CO<sub>2</sub>e)



## **Recap: Baseline to Reporting Regulation**

How does the Baseline connect to CARB's next steps on developing an Embodied Carbon Reporting Regulation?





# Covered Building Material Reporting

# II. Background



# **Statutory Requirements Covered Building Material Reporting**

- HSC § 38561.3 (c)(2): "A requirement for the submission by the manufacturer of a building material of an Environmental Product Declaration [...] or similarly robust material life-cycle assessment"
- HSC § 38561.3 (i)(5): requires manufacturers of building materials "to report data... to ensure that their products comply with applicable reduction targets... that will be established by the state board"
- HSC § 38561.3 (d): allows CARB to adopt "a tracking and reporting mechanism in order to facilitate the reporting of data to the state board"



### **Related Policies and Programs**

### **Product Carbon Intensity Reporting**

- Buy Clean California Act (2017)
- California Green Building Standards Code (CALGreen) Embodied Carbon Requirements (2024)
- Other state Buy Clean policies, including, but not limited to:
  - Buy Clean Colorado Act (2024)
  - Washington's Buy Clean Buy Fair (2024)
  - Buy Clean Oregon (2022)

### **Facility Emissions Reporting**

- US Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program (GHGRP)
- CARB Mandatory GHG Reporting (MRR)
- The Climate Corporate Data
   Accountability Act (Senate Bill (SB) 253)
- Climate-Related Financial Risk Disclosure (SB 261)



### **Building Material Supply Chain Considerations**

- Statute defines an overall emissions reduction target for building materials used in California
- Manufacturers are located nationally and internationally and are therefore not always aware of the final product destinations
- Quantity and source of building materials entering California must be reported for emissions tracking purposes
- For building materials used in California sourced from out-of-state manufacturers, staff suggests that the importer is the entity that should report material quantity and sourcing information to CARB



# Who Reports? Covered Building Material Reporting

<u>Staff Concept:</u> The following entities are subject to annual emissions reporting and fee requirements:

- 1. Manufacturers of covered products with \$10 million or more in annual revenue
- 2. Importers of covered products with \$1 million or more in annual revenue



### **Supply Chain and Product Source Disclosure Concept**

The **importer** or **in-state manufacturer** of a regulated building material must disclose product source information that:

- 1. Identifies the manufacturer and originating manufacturing facility
- 2. Identifies the importer of the product, if the product is brought into California from outside the state

As part of reporting to CARB, the importer or in-state manufacturer attests that they have disclosed product source information to all entities involved in the transfer or sale of the product within the state to the best of their abilities.

- Importer reporting also includes material quantities
- In-state manufacturer reporting also includes material quantities and emissions
- For imported products, if out-of-state manufacturers do not report emissions data to CARB,
   CARB will assign conservative default carbon intensities to imported products



### **Supply Chain and Product Source Disclosure Concept**

#### Generating product source declarations that may be used for recordkeeping and disclosure:

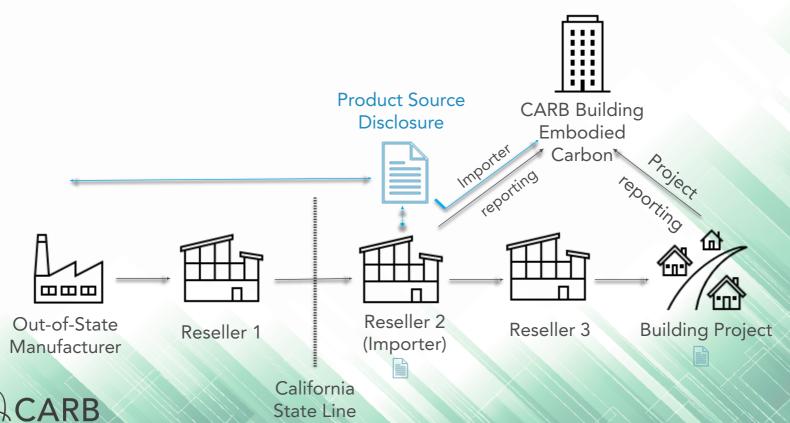
- **In-state manufacturers** should generate product source declarations once per reporting period to meet recordkeeping requirements. These up-to-date records should be disseminated with the regulated materials.
- **Importers** should generate product source declarations once per out-of-state manufacturer per reporting period to meet recordkeeping requirements. These records should be disseminated with the regulated materials.

In-state manufacturers using regulated materials as a process input as well as covered projects should **obtain and retain** the product source documentation for all regulated building materials that are purchased or used.

- Documentation should be duplicated and disseminated when product shipments are split.
- 10-year recordkeeping requirements would exist for document originators and regulated entities that use regulated materials.



# Example for how product source disclosure might work for out-of-state manufacturers



19

# Covered Building Material Reporting III. Proposed Reporting Requirements

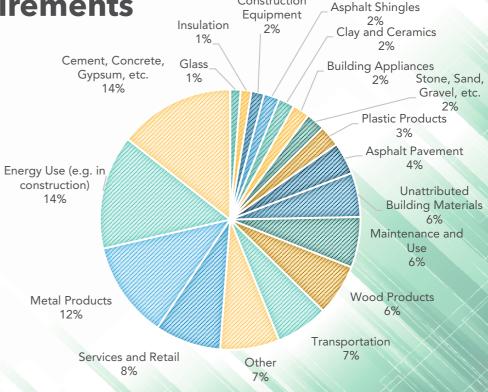


# Selecting the Products and Sectors with Reporting Requirements Construction Equipment Asphalt Shingle 20/

Staff considered **two main criteria** to establish the set of manufacturing industries to prioritize for reporting:

High GHG emissions building materials

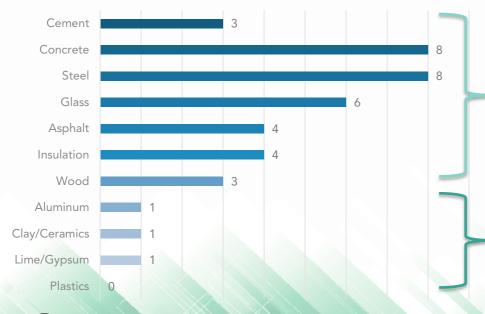
**2. Currently reported** in existing federal or state buy clean programs





## **Prioritization of Building Material Sectors for Reporting**

### Number of Green Procurement Programs Requiring Material Sector Reporting



#### PHASE 1

Materials with **high emission** impacts **AND** precedence in **existing** policies

#### PHASE 2

Materials with **high emission** impacts



# Reporting Implementation Timeline Covered Building Materials Reporting

PHASE 1: Covered Building Materials Reporting for 2026 Reporting Year:

- Cement and concrete
- Iron, steel, and ferroalloy products
- Glass and glass products
- Asphalt pavement and shingles
- Insulation
- Wood and wood products

PHASE 2: Covered Building Materials Reporting for 2028 Reporting Year:

- Aluminum
- Clay and ceramics
- Lime and gypsum products
- Additional sectors not currently part of state or federal buy clean programs



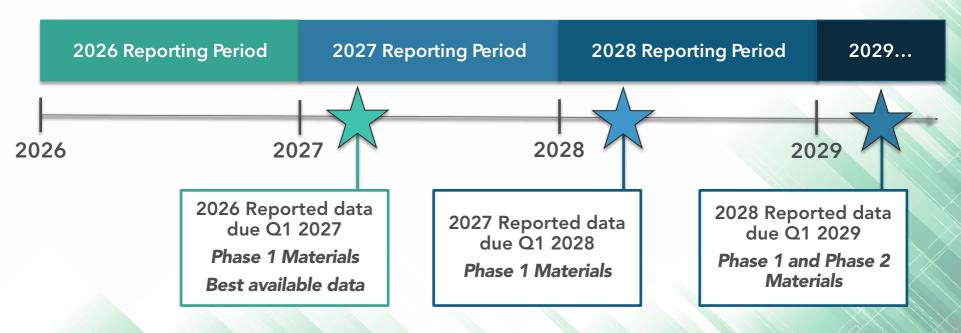
PHASE 3: Changes to accepted reporting for 2030

### **Covered Products and Manufacturers Would Include**

Relevant NAICS Codes (Industries)	Description for Facilities Reporting	Relevant Harmonized System (HS) Headings (Products)
32412	Asphalt Pavement and Asphalt Roofing Material Manufacturing	2714; 2715; 6807
3273	Cement and Concrete Product Manufacturing	2523; 3816; 3824; 6810; 6811
327211	Glass and Glass Product Manufacturing	7001-7009; 7016; 7019; 7020
3311 and 3312	Iron, Steel, and Ferroalloy Associated Manufacturing	2601; 2618; 2619; 2704-2706; 7201-7229; 7301-7308; 7312-7314; 3717; 3718; 7326
3279 and 32614	Insulation Product Manufacturing	3921; 6806; 7019;
1133; 3211; 3212; 32191; 32199	Wood and Wood Products Manufacturing	4403; 4406-4413; 4418; 6808; 9406;
3313	Aluminum Product Manufacturing	2818; 7601; 7603-7608; 7614
32712	Clay and Ceramics Product Manufacturing	3816; 6810; 6815; 6901; 6902; 6904-6907; 6910
3274	Lime and Gypsum Products Manufacturing	2518; 2520; 2522; 6809
326122; 32615; 326113; 326199	Plastic Building Material Manufacturing	39162; 3917; 3918; 3920; 3921; 3925; 5904



# **Example Reporting Timeline**Covered Building Materials Reporting





# **Appliance Exclusion in Statute** (1 of 2)

HSC § 38561.3 (j) explicitly states that the regulations do not apply to appliances.

### **Staff Proposal:**

 CARB staff proposes defining appliances in alignment with CA Appliance Efficiency Regulations developed by the California Energy Commission (California Code of Regulations (CCR) Title 20 § 1601), which provides a comprehensive list of appliance types.



# **Appliance Exclusion in Statute** (1 of 2)

### CCR Title 20 § 1601 includes the following 'appliances:'

- Refrigeration equipment (refrigerators, freezers, walk-in coolers)
- Air conditioning and heating units (AC units, heat pumps, evaporative coolers)
- Plumbing components and fixtures (faucets, toilets)
- Lighting sources and fixtures (lamps, ballasts)
- Kitchen and laundry appliances (dishwashers, dryers, cooking equipment)
- Electronics (computers, audio equipment, televisions)
- Electrical components (motors, battery chargers, transformers)
- Landscape irrigation systems

III. Proposed Reporting Requirements

# **Building Material Manufacturer Reporting**



### **Emissions Reporting Mechanisms**

Staff considered several potential methods for reporting emissions affiliated with covered building materials to CARB. These include:

- 1. Method 1: Environmental Product Declarations (EPD) that meet CARB-specified submission requirements. Only method for reporting starting with the 2030 reporting period.
- 2. Method 2: Facility-specific data that aligns with existing regulatory reporting programs

Under all reporting methods, manufacturers would also provide attestations related to dissemination of product source disclosures.



## **Facilities Already Reporting under MRR**

<u>Initial Concept</u>: Facilities already reporting under MRR may choose to use abbreviated reporting rather than report data through Method 1 or Method 2.

#### **Building Material Manufacturers Already Reporting Under MRR:**

- Direct emissions are already reported as part of MRR reporting
- Calculated Scope 2 and Scope 3 emissions would still be reported by MRR-reporting facilities
- Conservative, life cycle carbon intensities will be assigned by staff using reported and existing data
- Under all reporting methods, manufacturers would also provide attestations related to dissemination of product source disclosures

Note: MRR-reporting facilities may still submit complete Method 1 or Method 2 reports instead of having CARB staff assign conservative carbon intensities for their products.



### **Emissions Reporting Mechanisms: Method 1**

Staff considered several potential methods for reporting emissions affiliated with covered building materials to CARB. These include:

- 1. Method 1: Environmental Product Declarations (EPD) that meet CARB-specified submission requirements. Only method for reporting starting with the 2030 reporting period.
- 2. Method 2: Facility-specific data that aligns with existing regulatory reporting programs

Under all reporting methods, manufacturers would also provide attestations related to dissemination of product source disclosures



### **Concerns with Building Material EPDs**

#### Currently Available EPDs Lack Coverage, Consistency, Comparability, and Data Quality

- No EPDs available for many building materials
- Inconsistent and outdated primary and background data
- Limited LCA data transparency and opaque data verification standards
- Bundled environmental attribute concerns (e.g., renewable energy credits, voluntary offsets)
- Varied system boundaries due to Product Category Rules (PCR)
- No unified emissions factor database
- No clear chain of custody for key materials



# Method 1 Reporting: Scope and Data for CARB-Approved EPDs

#### **Scope and Validity**

- EPD must be facility- and product-specific
- LCA scope must be specified. At a minimum, the EPD must include modules A1, A2, and A3
- Conform to the requirements of ISO 14040:2006, ISO 14044:2006, and ISO 21930:2017, and be third party verified

#### **Data Requirements**

- Primary data must be <2 years old</li>
- Primary emissions data must be measured and calculated using methodology consistent with MRR or GHGRP
- Emissions factors must be harmonized with emissions factors accepted by CARB for reporting and accounting
- Primary impact results that rely on supply chain specific data must also be reported using CARB approved default emissions factors



# Method 1 Reporting: Results Disaggregation for CARB-Approved EPDs

#### **Disaggregation of Results**

- EPD results must be disaggregated by life cycle stage
- Results must be clearly disclosed with and without any environmental attributes, such as renewable energy credits or carbon offsets
  - Separately disclose contracted purchases of renewable energy or fuels used in the calculation of primary impact results.
- All products, co-products, and key waste flows from facilities must be clearly disclosed. In the case of co-products, physical and economic allocation results must be disclosed

#### **Staff Concept:**

 Method 1 reporting will be the only pathway available for reporting manufacturing data for the 2030 calendar year onward.



## **Emissions Reporting Mechanisms: Method 2**

Staff considered several potential methods for reporting emissions affiliated with covered building materials to CARB. These include:

- 1. Method 1: Environmental Product Declarations (EPD) that meet CARB-specified submission requirements. Only method for reporting starting with the 2030 reporting period.
- 2. Method 2: Facility-specific data that aligns with existing regulatory reporting programs

Under all reporting methods, manufacturers would also provide attestations related to dissemination of product source disclosures



### Method 2 Reporting: Facility-Specific Data

<u>Initial Concept:</u> CARB will utilize a streamlined approach for data collection and provide a tool that estimates product carbon intensities.

### Building Material Manufacturers Report Facility-Level Production Data:

- Direct, total, facility-level GHG estimates and underlying data to support GHG estimates, aligning with relevant US EPA GHGRP subparts or CARB MRR subparts
- Material and energy input physical quantities and costs by NAICS codes
- Product, co-product, and waste physical quantities and revenue apportionments by product and co-product



### **Staff Concept for Calculating Facility-Specific Emissions**

Calculated from energy purchases



from product inputs



Calculated from GHGRP/MRR methods



Scope 2

Indirect emissions from consumption of purchased electricity, heat, or steam

**Upstream Scope 3** 

Indirect emissions from purchased materials

Scope 1

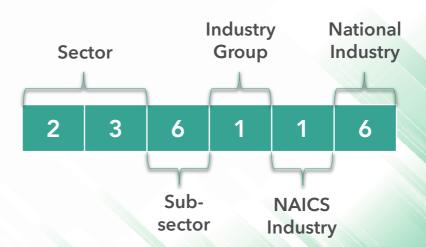
Direct on-site process emissions and fuel combustion



#### **Facility Material Input Classifications**

**North American Industry Classification System (NAICS)** is the standard used by Federal agencies in classifying businesses for the purpose of collecting, analyzing, and publishing data related to the U.S. economy.

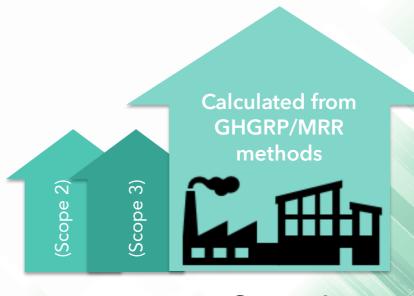
Example of a 6 digits NAICS Code:





# Direct: Scope 1 Emissions Staff Concept for Calculating Facility-Specific Emissions

- Includes non-combustion process emissions and on-site fuel combustion
- Directly calculate using existing US EPA GHGRP or CARB MRR reporting methodologies and equations
  - Entities will calculate using relevant subparts
  - Output of those equations will equal Direct Emissions



Scope 1
Direct on-site process emissions and fuel combustion



# Indirect: Scope 2 and Upstream Scope 3 Emissions Staff Concept for Calculating Facility-Specific Emissions

- Estimate using standardized emissions factors and a complete facility-level material and energy balance
  - These inputs and associated emissions factors will be delineated using NAICS codes

Calculated from energy purchases



Calculated from product inputs



(Scope 1)

Scope 2

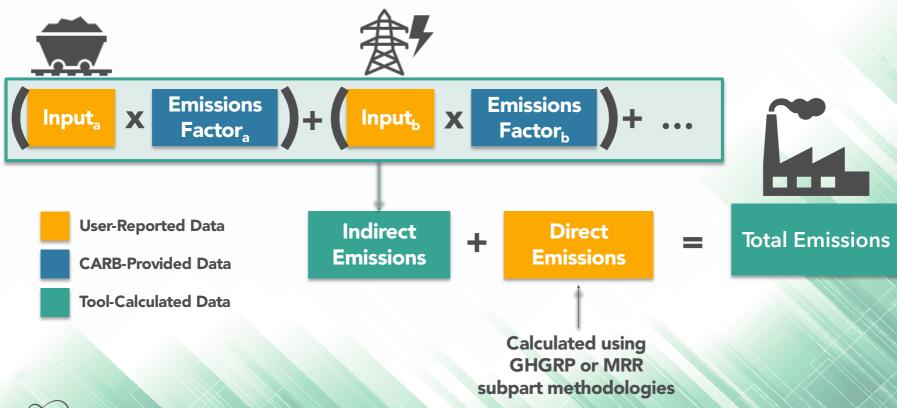
Indirect emissions from consumption of purchased electricity, heat, or steam

**Upstream Scope 3** 

Indirect emissions from purchased materials



### **Facility-Level Total GHG Emissions**





### **Facility-Level Product (p) Carbon Intensities**





### **Key Reporting Form Fields for Method 1 Reporting**

#### **Reporter & Facility Information**

- Company contact
- Locations
- NAICS codes
- Annual Revenue
- Product source disclosure attestation

#### **EPD Data**

GWP for A1, A2, and A3

#### **Product Information**

- Product Description
- NAICS codes, HS Codes
- Physical Quantities
- Declared Values



### **Key Reporting Form Fields for Method 2 Reporting**

#### **Reporter & Facility Information**

- Company contact
- Locations
- NAICS codes
- Annual Revenue
- Product source disclosure attestation

#### **Direct Emissions**

Calculated from GHGRP/MRR methodology

#### **Process Inputs**

- Physical Quantity
- Purchased cost
- NAICS codes

#### **Production Information**

- NAICS codes
- Physical Quantity
- Revenue Attribution



### **Key Reporting Form Fields for MRR-reporting Facilities**

#### **Reporter & Facility Information**

- Company contact
- Locations
- NAICS codes
- Product source disclosure attestation

#### **Scope 2 and Scope 3 Emissions**

 Calculated using Method 2 methodology

#### **Product Carbon Intensities**

 Opt-in to abbreviated reporting and having CARB staff assign conservative carbon intensities



III. Proposed Reporting Requirements

# **Building Material Importer Reporting**



### **Importer Product Reporting to CARB**

Staff's concept for reporting is that the importer will report the following information to CARB, for all covered building materials imported into California:

- Importer information
- Material identification information
- Material physical quantity and declared value
- Importer annual revenue
- Product source and manufacturer contact information
- Attestations related to dissemination of product source declarations
- Starting in 2030: EPDs that meet CARB standards



### **Reporting Data for Importers**

#### **Reporter Information**

- Name of Company
- Company Address
- Contact Email Address
- Phone Number
- Annual Company Revenue

#### **Product Information**

- Product Identification
- Declared Value and Physical Quantity
- Manufacturer & Facility Name, Address, and Contact Information
- Product source disclosure attestation
- Starting 2030: EPDs that meet CARB standards



### **Reporting Summary for Staff Concepts**

Reporting Data	Non-MRR-Reporting Facilities	MRR-Reporting Facilities	Importers
Reporter Contact Info	<b>✓</b>	<b>✓</b>	<b>✓</b>
Reporting Company Information	<b>✓</b>	<b>~</b>	<b>~</b>
Manufacturer Info	<b>✓</b>	<b>✓</b>	<b>✓</b>
Quantity of Materials Sold in CA		Opt-out	<b>✓</b>
Process Inputs and Outputs	<b>~</b>	Opt-out	
NAICS Categories	<b>✓</b>	<b>~</b>	<b>✓</b>
Facility Emissions	<b>✓</b>	<b>✓</b>	EPD reporting in 2030
Product source disclosure attestation	<b>✓</b>	<b>✓</b>	<b>~</b>



Covered Building Material Reporting

# IV. Facility and Importer Reporting Tools



# Reporting Tools Covered Building Material Reporting

CARB will provide tools for reporters to calculate emissions and to submit data aligned with regulatory requirements:

- 1. Facility Reporting Tool
- 2. Reporting Tool for Facilities Subject to California's Mandatory GHG Reporting (MRR)
- 3. Importer Reporting Tool



### Tool Walkthrough

### 1. Facility Reporting Tool



# Facility Reporting Tool Reporter Information

The purpose of the Reporter Information sheet is to collect contact information for the individual filling out the template.

Representative Reporter Information	Value	Data Entry Type (Internal)	Instructions
Primary Contact First Name		string	Enter the name of the owner or person in fieu of owner submitting data on behalf of the facility
Primary Contact Last Name		string	Enter the last name of the person submitting data on behalf of facility
Primary Contact Email		string	Enter the mail contact of person submitting data on behalf of facility
Primary Contact Phone Number		XXXX-XXXX-XXXXX	Enter the phone number of the primary contact
Company Name		string	Enter name of company who is reporting
Company Web Domain		URL	Enter the web domain of the company
Company Type		string	Enter the type/purpose of the company
Company Country		drapdown	Select the address of the company headquarters (country)
Company State or Province		dropdown	Select the full state name of the company headquarters address (no abbreviations)
Company City		string	Enter the company headquarters address (city)
Company Street Address		string	Enter the company headquarters address (street address)
Company Zip Code		number	Enter the company headquarters address (zip code)
Company Latitude and Longitude		string	Enter the latitude/longitude pair (as a signed decimal) for the company headquarters
Company EIN		XX-XXXXXXX	Enter the company employer identification number (EIN) All U.S. registered business entities have an EIN from the Internal Revenue Service (IRS), even if they are a foreign-owned business entity
Company Primary NAICS Code		XXXXXXX	Enter the primary 6-digit North American Industry Classification System (NAICS) code https://www.census.gov/naics/
Company Secondary NAICS Code		XXXXXX	Enter the secondary 6-digit NAICS code, if applicable. Companies can have up to several NAICS codes. https://www.census.gov/naics/
Company Annual Revenue		number	Enter the company annual revenue in million U.S. Dollars (USD)
Date of Report Creation		ISO Date	Enter the date of data entry creation in the format of the International Organization for Standardization (ISO) ISO 8601 standard (yyyy-mm-dd)
Date of Report Submission		ISO Date	Enter the date of data entry submission in ISO 8601 format (yyyy-mm-dd)
			By choosing either Yes or No, Lunderstand the following: Emissions data and emissions intensity data are public information as provided in existing law,
Confidential Business Information (CBI)?			If you selected "No," Non-emissions information including, but not limited to, unit-level operational data, production data, and electricity and fuel purchase and consumption data, may be released to the public in accordance with Title 17, California Code of Regulations (CCR), sections 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.)
Description of CBI Data and Rationale			If you selected "Yes" for confidential data, you must briefly describe the reasons for claiming indomestion submitted in your submission as confidential by providing a general description of the data that are considered confidential.













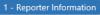




# Facility Reporting Tool Facility Information

The purpose of Facility Information sheet is to provide specific information about the facility, including its location, as well as the direct greenhouse gas emissions that occur at the facility.

Facility Profile	Value	Data Entry Type (Internal)	Instructions
Manufacturer Name		string	Enter the name of the manufacturer
Manufacturer EIN		20X-30XXXXXXX	Enter the manufacturer's employer identification number (EIN) All U.S. registered business entities have an EIN from the IRS, even if they are a foreign-owned business entity
List of Owners and Operators of Facility		string	Enter a list of owners and operators of the manufacturing facility
Legal Name of Parent Company		string	If applicable, enter the legal name of highest-level US parent company at time of reporting
Company Country		dropdown	Select the address of the parent company (country)
Currency to Report Under	USD	guid	Currency autopopulates based on "Company Country." The listed revenues and costs should correspond to this currency
Conversion Rate from USD to USD	1	guid	This field autopopulates the estimated conversion rate for currency based on the corresponding year the emissions factors are based on.
Company State or Province		dropdown	Select the address of the parent company (state or province)
Facility Name		string	Enter the name of the manufacturing facility
Facility Country		dropdown	Select the address of the manufacturing facility (country)
Electricity Emissions Factor	6.54	guid	This field autopopulates country-specific Electricity Emissions Factor based on th "Facility Country." See the corresponding user guide for emission factors source.
Facility State		"dropdown list if project_country = United States; dropdown list if project_country = Canada; string if neither is true"	Select the full state name of the manufacturing facility address (no abbreviations)
Facility City		string	Enter the manufacturing facility address (city)
Facility Street Address		string	Enter the manufacturing facility address (street address)
Facility Zip Code		number	Enter the manufacturing facility address (zip code)
Facility Latitude and Longitude		number	Enter the latitude/longitude pair (as a signed decimal) for the manufacturing facility
FRS ID		300000000000	Enter the Facility Registry System Identification Number (FRS ID).  An FRS ID is a facility identification number. The Facility Registry System is a centrally imanaged FFA distabase that identifies facilities, sites, or places subject environmental regulations or of environmental interest across various EPA programs.
Primary NAICS Code		XXXXXX	Enter the primary 6-digit NAICS code https://www.census.gov/naics/
Secondary NAICS Code		xxxxxx	Enter the secondary 6-digit NAICS code, if applicable. Companies can have up to several NAICS codes. https://www.census.gov/naics/
Industry Type		auto-populated from NAICS	This field autopopulates the industry type based on the Primary NAICS Code
Reporting Period		YYYY	Enter the calendar year of data used for report
Annual Revenue For Reporting Year (million USD)		number	Enter the assessed value of products manufactured a the facility (in million USD)
Product Source Declaration Attestation		Yes/No	Did you generate an associated product source declaration for the items report here, and have you disclosed product sourcing information to all entities involve in the transfer or sale of the items within the state to the best of your abilities?







4 - Direct Emissions (Scope 1)

5 -Indirect Emissions (Scope 2)

6 - Process Inputs (Scope 3)

7 - Production Information



# Facility Reporting Tool EPD Data Reporting

Method 1: CARB-Approved Environmental Product Declaration (EPD) Data

Product Name	Product Description	Relevant NAICS Code (6- digit)	EPD Declaration ID	CSI MasterFormat Code	HS Code	Declared Quantity (# of units)	Unit of Declared Quantity	Total Declared Value	Raw Material Production (A1) GWP	Raw Material Transport (A2) GWP	Product Manufacturing (A3) GWP	Cradle-to-Gate (A1-A3) GWP		OPTIONAL: A1-A3 GWP including Environmental Attributes
Name of product	Describe details of product type	Enter the NAICS code associated with the each corresponding product	Unique identifier assigned to the EPD	If applicable, enter the Construction Specifications institute (CSI) MasterFormat Code associated with the corresponding product	Enter the Harmonized System (HS) Code associated with the corresponding product	Enter the total quantity (# of units) of each product		United States Dollar (USD)	Enter Global Warming Potential (GWP) in kg CO <sub>2</sub> e per physical unit.  Do not include environmental attributes.	Enter Global Warming Potential (GWP) in kg CO <sub>2</sub> e pre physical unit.  Do not include environmental attributes.	Enter Global Warming Potential (GWP) in kg CO <sub>2</sub> e per physical unit.  Do not include environmental attributes.	Auto-populated	Auto-populated	Option to provide cradie- to-gate GWP including any environmental attributes detailed in the EPD
string	string	XXXXXXX	string	XX XX XX	XXXXXXXXXX	number	string	number	number	number	number	number	string	number
												0.00		

The purpose of the EPD Data Reporting sheet is for users to enter CARB-approved environmental product declaration (EPD) data and carbon intensities of manufactured products in lieu of submitting facility-specific process information.













7 - Production Information



# Facility Reporting Tool Direct Emissions (Scope 1)

Method 2: Facility Level Emissions

The purpose of the Direct Emissions sheet is to record the direct emissions associated with the production facility.

These emissions should be calculated using applicable and appropriate EPA Greenhouse Gas Reporting Program (GHGRP) calculation methodologies and equations, or California's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR) calculations and equations.

Facility Profile	Value	Data Entry Type (Internal)	User Notes
Facility-Level Direct GHG Emissions (MT CO2e)		number	Enter the total metric tons CO2e emitted directly from the facility. The total value must be calculated using methods consistent with relevant GHGRP Subparts or MRR
GHG Emissions Calculation Attestation Provided		Yes/No	Select yes or no to attest that documentation from the supply chain/manufacturer is retained and available. Must upload a signed attestation to the fact that direct GHG emissions were calculated consistent with relevant GHGRP subparts and MRR
Calculation Methodology Used		MRR/GHGRP	Select MRR or GHGRP to specify the calculation method utilized to estimate direct emissions.
Facility Reports to CARB as part of MRR Reporting		Yes/No	Select yes or no to indicate whether or not regulated entity is already reporting information to CARB pursuant the Mandatory Greenhouse Gas Reporting Regulation in title 17, California Code of Regulations (CCR), sections 95100-95163

Subpart	Description	Relevant GHGRP Information	Relevant MRR Information	Included in Direct Emissions Reduction Calculation
Subpart A	General Provisions	Link	Link	No
Subpart C	General Stationary Fuel	Link	Link	No
subpart C	Combustion Sources	LITIK	LIIK	140
Subpart D	Electricity Generation	<u>Link</u>	<u>Link</u>	No
Subpart F	Aluminum Production	<u>Link</u>		No
Subpart G	Ammonia Manufacturing	Link		No
ubpart H	Cement Production	Link	Link	No
iubpart K	Ferroalloy Production	<u>Link</u>		No
ubpart L	Fluorinated Gas Production	Link		No
ubpart N	Glass Production	Link	Link	No
ubpart O	HCFC-22 Production and HFC-23 Destruction	Link	**	No
Subpart P	Hydrogen Production	Link	Link	No
ubpart Q	Iron and Steel Production	Link	Link	No
ubpart R	Lead Production	Link	Link	No
ubpart S	Lime Manufacturing	Link	Link	No
Subpart T	Magnesium Production	Link		No
ubpart U	Miscellaneous Uses of Carbonate	Link		No
ubpart V	Nitric Acid Production	Link	Link	No
ubpart X	Petrochemical Production	Link		No
ubpart Y	Petroleum Refineries	Link	Link	No
ubpart BB	Silicon Carbide Production	Link		No
Subpart CC	Soda Ash Manufacturing	Link		No
ubpart EE	Titanium Dioxide Production	Link		No
ubpart GG	Zinc Production	Link		No
Subpart OO	Suppliers of Industrial Greenhouse Gases	Link		No
Subpart PP	Suppliers of Carbon Dioxide	Link	Link	No
Subpart QQ	Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams	Link		No
Subpart RR	Geologic Sequestration of Carbon Dioxide	Link		No
Subpart UU	Injection of Carbon Dioxide	Link		No
iubpart VV	Geologic Sequestration of Carbon Dioxide with Enhanced Oil Recovery Using ISO 27916	Link		No
ubpart WW	Coke Calciners	Link		No
ubpart XX	Calcium Carbide Producers	Link		No
Subpart ZZ	Ceramics Manufacturing	Link		No

1 - Reporter Information

2 - Facility Information

3 - EPD Data Reporting

4 - Direct Emissions (Scope 1)

5 -Indirect Emissions (Scope 2)

6 - Process Inputs (Scope 3)

7 - Production Information



The purpose of the Indirect Emissions sheet is to record the indirect emissions associated with the generation of purchased or acquired electricity, steam, heat, and cooling.

Emissions Factor Classification	Description of Process Input	NAICS Identifier	Total Purchased Cost	Quantity	Quantity Units
Auto-populated	Text description of input given the NAICS Identifier	NAICS Identifier for the industry responsible for producing the commodity	The total purchased cost in (thousand of governing currency) of each process input	Total purchased or aquired quantity of each process input	Quantity units assocated with each process input
string	string	xxxxxx	number	number	string
Electricity	Electricity	221122			
Drinking water and wastewater	Steam	221330			
Drinking water and wastewater	Heat	221330			
Drinking water and wastewater	Cooling	221330			

1 - Reporter Information

2 - Facility Information

3 - EPD Data Reporting

4 - Direct Emissions (Scope 1)

5 -Indirect Emissions (Scope 2)

6 - Process Inputs (Scope 3)

7 - Production Information



Emissions Factor Classification	Description of Process Input	NAICS Identifier	Input Commodity Purchased had a Product Source Declaration	Manufacturer of Record on Product Source Declaration	Total Purchased Cost	Quantity	Quantity Units
Auto-populated	Name of process input	Enter the NAICS code associated with the each corresponding process input Use the "Simple NAICS Search" below to help identify NAICS codes			Enter the total purchased cost in thousand of governing currency of each process input (in thousand USD)	Enter the total purchased or aquired quantity of each process input	Enter the total purchased or aquired quantity of each process input
				* * * * * * * * * * * * * * * * * * * *			

The purpose of the Process Inputs sheet is for the reporting entity to provide a detailed list of significant inputs into the manufacturing process. The input data provided is used to estimate indirect, upstream emissions affiliated with products that the facility produces.



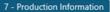














#### **Facility Reporting Tool Production Information**

Aggregated Commodity Description	Product Description	Waste Product	NAICS Identifier	CSI MasterFormat Code	Declared Quantity	Unit of Declared Quantity	Total Declared Value
Auto-populated	Name of product	Select yes or no to indicate if the product is a waste product or not	Enter the NAICS code associated with each corresponding product. Use the "Simple NAICS Code Search" to identify relevant NAICS codes	If applicable, enter the CSI MasterFormat Code or codes associated with the each corresponding product. Separate multiple codes with a semicolon	Enter the total quantity (# of units)	Enter the quantity units assocated with each product	Enter the total value (thousand USD) of each product
string	string	dropdown yes/no	XXXXXX	xx xx xx	number	string	number

The purpose of the Production Information sheet is to provide a detailed list of significant products, co-products, and waste streams associated with the manufacturing process. Products listed should be provided at a level of aggregation consistent with relevant 6-digit North American Industry Classification System (NAICS) codes.

5 -Indirect Emissions (Scope 2)



3 - EPD Data Reporting

4 - Direct Emissions (Scope 1)

## **Facility Reporting Tool Estimated Product Emissions**

	Emission	Percent of Total Emissions	
Direct, Scope 1 Emissions	•	MT CO2e	#DIV/0!
Indirect, Scope 2 Emissions	-	MT CO2e	#DIV/0!
Indirect, Upstream, Scope 3 Emissions		MT CO2e	#DIV/0!
Total Estimated Emissions	-	MT CO2e	#DIV/0!
Average Product Emissions Intensity	#DIV/0!	kg CO2e/USD	

Product #	Product Description	Product NAICS	Estimated Carbon Intensity (GWP)	Functional Units
1	#CALC!	#CALC!		

The Estimated Product Emissions sheet calculates the total emissions of the facility and allocates them to the product level on a revenue basis.

















### Tool Walkthrough

# 2. Reporting Tool for Facilities Subject to California's Mandatory GHG Reporting (MRR)



# MRR-Facility Reporting Tool Reporter Information

The purpose of the Reporter Information sheet is to collect contact information for the individual filling out the template.

Representative Reporter Information	Value	Data Entry Type (Internal)	Instructions
Primary Contact First Name		string	Enter the name of the owner or person in lieu of owner submitting data on behalf of the facility
Primary Contact Last Name		string	Enter the last name of the person submitting data on behalf of facility
Primary Contact Email		string	Enter the mail contact of person submitting data on behalf of facility
Primary Contact Phone Number		XXX-XXXX-XXXXX	Enter the phone number of the primary contact
Company Name		etring	Enter name of company who is reporting
Company Web Domain		URL	Enter the web domain of the company
Company Type		etring	Enter the type/purpose of the company
Company Country		dropdown	Select the address of the company headquarters (country)
Company State or Province		dropdown	Select the full state name of the company headquarters address (no abbreviations)
Company City		string	Enter the company headquarters address (city)
Company Street Address		etring	Enter the company headquarters address (street address)
Company Zip Code		number	Enter the company headquarters address (zip code)
Company Latitude and Longitude		string	Enter the latitude/longitude pair (as a signed decimal) for the company headquarters
Company EIN		90C-30000000C	Enter the company ampliyer identification number (EN) All U.S. registered business entites have an EIN from the Internal Revenue Service (IRS), ever they are a foreign owned business entity.
Company Primary NAICS Code		300000X	Enter the primary d-digit North American Industry Classification System (NAICS) code https://www.census.gov/naics/
Company Secondary NAICS Code		300000X	Enter the secondary 6-digit NAXCS code, if applicable. Companies can have up to several NA codes. https://www.consus.gow/naics/
Date of Report Creation		ISO Date	Enter the date of data entry creation in the format of the International Organization for Standardization (ISO) ISO 8601 standard (yyyy-mm-dd)
Date of Report Submission		ISO Date	Enter the date of data entry submission in ISO 8601 format (yyyy-mm-dd)

1 - Reporter Information

2 - Facility Information

3 - Facility Emissions



# MRR-Facility Reporting Tool Facility Information

The purpose of the Facility Information sheet is to provide specific information about the facility, including its location.

Facility Profile	Value	Data Entry Type (Internal)	Instructions
Manufacturer Name		string	Enter the name of the manufacturer
Manufacturer EIN		xx-xxxxxx	Enter the manufacturer's employer identification number (EIN) All U.S. registered business entities have an EIN from the IRS, even if they are a foreign-owned business entity
List of Owners and Operators of Facility		string	Enter a list of owners and operators of the manufacturing facility
Legal Name of Parent Company		string	If applicable, enter the legal name of highest-level US parent company at time of reporting
Company Country	United States	defined for MRR reporters	Select the address of the parent company (country)
Company State or Province	California	defined for MRR reporters	Select the address of the parent company (state or province)
Facility Name		string	Enter the name of the manufacturing facility
Facility City		string	Enter the manufacturing facility address (city)
Facility Street Address		string	Enter the manufacturing facility address (street address)
Facility Zip Code		number	Enter the manufacturing facility address (zip code)
Facility Latitude and Longitude		number	Enter the latitude/longitude pair (as a signed decimal) for the manufacturing facility
ARB ID		number	Enter the ARB ID affiliated with MRR Reporting.
Primary NAICS Code		xxxxxx	Enter the primary 6-digit NAICS code https://www.census.gov/naics/
Secondary NAICS Code		xxxxxx	Enter the secondary 6-digit NAICS code, if applicable. Companies can have up to several NAICS codes. https://www.census.gov/naics/
Reporting Period		YYYY	Enter the calendar year of data used for report
Product Source Declaration Attestation		Yes/No	Did you generate an associated product source declaration for the items reported here, and have you disclosed product sourcing information to all entities involved in the transfer or sale of the items within the state to the best of your abilities?
CARB-Assigned Product Carbon Intensities?		Yes/No	Are you opting in to having CARB staff assign conservative CI values for products you producce instead of providing reporting under Method 1 or Method 2 reporting?



# MRR-Facility Reporting Tool Facility Emissions

	Emissions Quantity	Percent of Total Emissions
Direct, Scope 1 Emissions (optional)	MT CO2e	
Indirect, Scope 2 Emissions	MT CO2e	
Indirect, Upstream, Scope 3 Emissions	MT CO2e	
Total Estimated Emissions	- MT CO2e	0%

Facilities that are already reporting to MRR may opt-in to having staff assign conservative carbon intensities to their products. As part of opt-in requirements, facilities must provide Scope 2 and Scope 3 emissions estimates. These calculations must be done in accordance with CARB requirements. The "Facility Reporting Tool" that CARB staff have developed may be used as a calculator and retained to help meet relevant recordkeeping requirements.



### Tool Walkthrough

### 3. Importer Reporting Tool



# Importer Reporting Tool Reporter Information

The purpose of the Reporter Information sheet is for the individual filling out the template to enter their contact information.

Representative Reporter Information	Value	Data Entry Type (Internal)	User Notes		
Primary Contact First Name		string	Owner or person in lieu of owner submitting data on behalf of the facility		
Primary Contact Last Name		string	Last Name of person submitting data on behalf of facility		
Primary Contact Email		string	Email contact of person submitting data on behalf of facility		
Primary Contact Phone Number		XXX-XXX-XXXX	Phone number of contact		
Company Name		string	Name of company submitting report		
Company Web Domain		URL	Web Domain of Owner		
Сотрапу Туре	<u>,                                      </u>	string	Type/purpose of company		
Company Country		dropdown	Headquarters address (country)		
Company State/Province/Region		"dropdown list if project_country = United States; dropdown list if project_country = CanadCa; string if neither is true"	Headquarters address (state/province/region)		
Company City		string	Headquarters address (city)		
Company Street Address		string	Headquarters address (street address)		
Company ZIP/Postal Code		number	Headquarters address (zip/postal code)		
Company Latitude and Longitude		open-location-code	A latitude/longitude pair ( as a signed decimal) for describing a point on Earth		
Company EIN Code		xx-xxxxxx	All U.S. registered business entities have an employer identification number (EIN) from the Internal Revenue Service (IRS), even if they are a foreign-owned business entity		
Company Primary NAICS Code		XXXXXX	Primary assigned NAICS code		
Company Secondary NAICS Code		xxxxxx	Secondary NAICS code, if applicable. Companies can have up to several NAICS codes.		
Company Annual Revenue (USD)		number	Company annual revenue in US dollars (USD)		
Reporting Year		number	Year of reported emissions		
Date of Report Creation		ISO Date	Date of data entry creation (yyyy-mm-dd)		
Date of Report Submission		ISO Date	Date of data entry submission (yyyy-mm-dd)		

1 - Reporter Information

2 - Product Information



## Importer Reporting Tool Product Information

The purpose of the Product Information sheet is to provide a full list of all building materials imported into CA by the importer reporting entity.

Product Information									
Classification	Product Description	scription Product NAICS Code		Unit of Declared Quantity	Declared Value	Product HS Code	Product Source Declaration Attestation		
Auto-populated	Name of product	Enter the NAICS Code of each product	Enter the total quantity (# of units) of each product	Enter the quantity units associated with each product	Enter the declared value in USD	Enter the HS Code of Each Product	Did you generate an associated product source declaration for this item, and have you disclosed product sourcing information to all entities involved in the transfer or sale of the item within the state to the best of your abilities?		
string	string	3000000	number	string	number	1000K-RIC-101-20K	Yes/No		
			·						

Manufacturer Information								
Manufacturer Company Name	Manufacturer Contact First and Last Name	Manufacturer Contact Email	Manufacturer Contact Phone Number	Manufacturer Facility Name	Manufacturer Facility Country	Manufacturer Facility State or Province	Manufacturer Facility ZIP Code	Manufacturer Facility Street Address
Enter the name of the manufacturer	Enter the contact name for the manufacturer on record	Enter the contact email for the manufacturer on record	Enter the contact phone number for the manufacturer on record	Enter the name of the facility	Enter the country of the facility	Enter the state or province of the facility	Enter the ZOP code of the facility (if applicable)	Enter the address of the facility
string	string	atring	XXX-XXX-XXXX	string	dropdown	drapdown	XXXXXX	string

1 - Reporter Information

2 - Product Information



Covered Building Material Reporting

### V. Open Discussion and Feedback



#### Requested Feedback (1/3)

- 1. Are there ways that we could **structure our tools** so that data can be submitted more easily?
- 2. Are there other **relevant supply chain reporting options** that could streamline product source disclosure to ensure product sourcing and reporter information is accurately disclosed down the supply chain?
- 3. Is there a **common physical unit** that could be used to track materials through diverse stages of the supply chain?
  - Are there preferred physical units for specific sectors or specific product categories?
- 4. Are there additional NAICS sectors and product HS headings that should be included in reporting to accurately cover the materials that are reporting priorities?



#### Requested Feedback (2/3)

- 5. Are there specific concerns about submitting quantity data from importers?
  - Are these concerns specific to certain products or places of origin?
- 6. Are there specific **concerns with phasing out Method 2 reporting** for 2030 reported data?
- 7. Are there **alternative approaches** that CARB should consider to get data on the quantities of building materials manufactured outside of California and used in California?
- 8. Are there **alternative annual revenue thresholds** that should be considered for exemption from reporting for manufacturers or for importers?
  - How would these alternative thresholds be defined?



#### Requested Feedback (3/3)

- 9. How much **time or monetary cost** do you anticipate it will take your organization to complete the reporting requirements as discussed today for both facility-specific data and for EPDs that meet CARB standards?
  - Do you have additional suggestions for reducing reporting time and/or costs?
- 10. Would your organization do this **reporting in-house**, or would an external entity handle this process?
- 11. Does your organization **already report similar or related data** for other purposes not discussed today that CARB could build upon or use to meet reporting requirements?



#### **Request for Feedback**

#### Provide feedback and review previous workshop content:

- Previous Workshop Content: <a href="https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/embodied-carbon/embodied-carbon-meetings-and-workshops">https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/embodied-carbon/embodied-carbon-meetings-and-workshops</a>
- Submit Feedback: <a href="https://ww2.arb.ca.gov/public-comments/comments-embodied-carbon-reporting-technical-meeting-october-30-2025">https://ww2.arb.ca.gov/public-comments/comments-embodied-carbon-reporting-technical-meeting-october-30-2025</a>



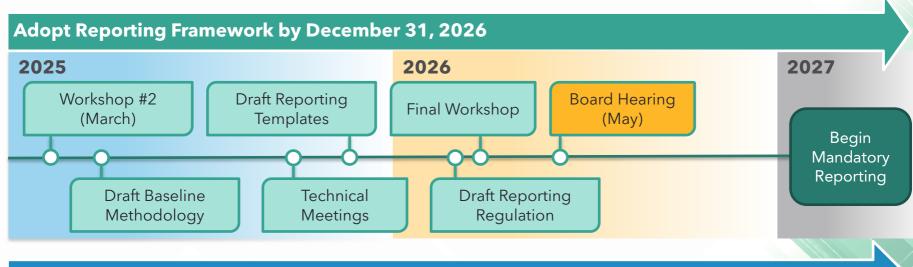
#### **Next Steps**



CARB

73

#### **Recap of Tentative Program Timeline**



Develop Comprehensive Strategy by December 31, 2028

Achieve a 40% Reduction in Net GHG Emissions by December 31, 2035

