

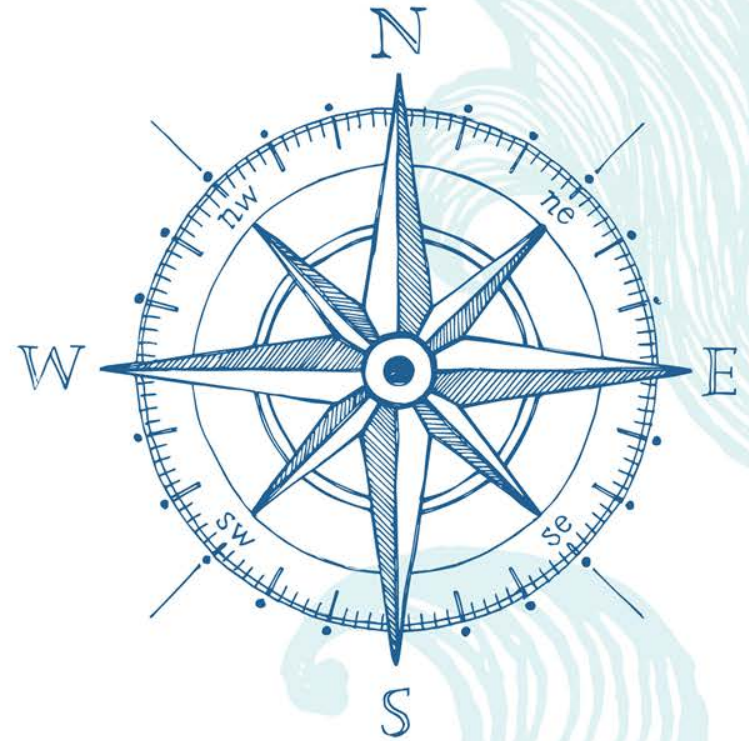
Learning Outcomes

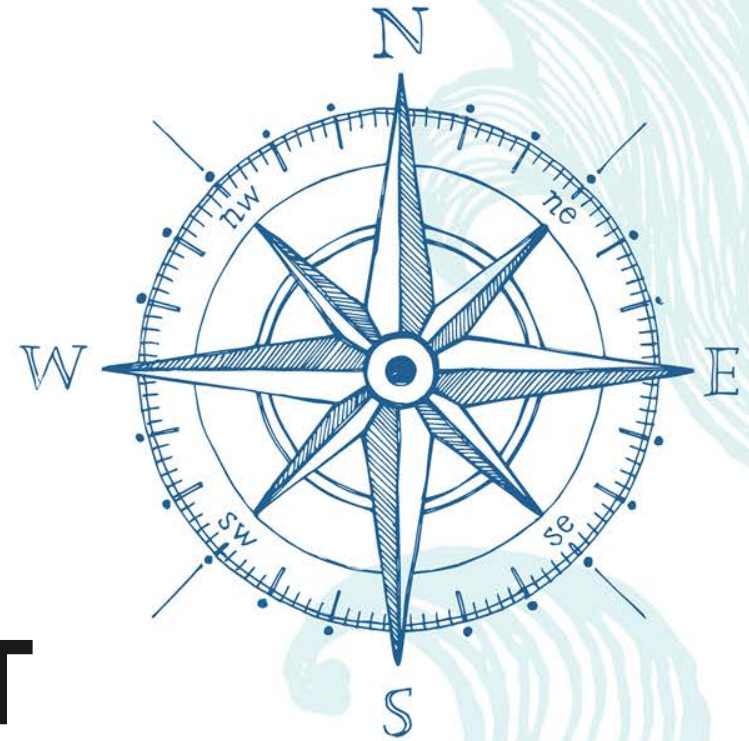
1. Learn how AB 262 will affect Campus capital outlay projects
2. Understand Product Category Rules and Environmental Product Descriptions
3. Understand options for compliance with the law



BUILDING COLLABORATIVE COMMUNITIES

NAVIGATING CHALLENGES, CHARTING INNOVATIONS





BUY CLEAN CALIFORNIA ACT (AB262)

Legislation overview

- Awarding authorities are any state agencies subject to the State Contract Act, Regents of the University of California, and Trustees of the California State University involved with public works contracts.
 - [PCC DIVISION 2. GENERAL PROVISIONS, PART 1. ADMINISTRATIVE PROVISIONS, CHAPTER 3. Formation, ARTICLE 5. Buy Clean California Act Section, 3501 (a)]



Legislation overview

- DGS is required to set the maximum limit for global warming potential (GWP) of eligible materials and publish it in the state contracting manual.
 - [PCC DIVISION 2. GENERAL PROVISIONS, PART 1. ADMINISTRATIVE PROVISIONS, CHAPTER 3. Formation, ARTICLE 5. Buy Clean California Act Section, 3502 (a)]



Legislation Overview

- Awarding authorities are required to obtain type III environmental product declarations (EPDs) for the eligible materials proposed to be used.
 - [PCC DIVISION 2. GENERAL PROVISIONS, PART 1. ADMINISTRATIVE PROVISIONS, CHAPTER 3. Formation, ARTICLE 5. Buy Clean California Act, Section, 3503 (a)]



Legislation Overview

- Awarding authorities are required to include a GWP limit for eligible materials in bid specifications in eligible projects.
 - [PCC DIVISION 2. GENERAL PROVISIONS, PART 1. ADMINISTRATIVE PROVISIONS, CHAPTER 3. Formation, ARTICLE 5. Buy Clean California Act, Section, 3503 (b)]



Legislation Overview

- Awarding authorities must prohibit successful bidder from installing eligible materials until that bidder submits an associated EPD.
 - [PCC DIVISION 2. GENERAL PROVISIONS, PART 1. ADMINISTRATIVE PROVISIONS, CHAPTER 3. Formation, ARTICLE 5. Buy Clean California Act, Section, 3503 (c)]



Roles and responsibilities

- DGS to establish and publish a maximum global warming potential (GWP) for eligible materials. Eligible materials include structural steel, rebar, flat glass, and mineral wool board insulation.
- Awarding authorities are to include in specifications for bids a GWP requirement not to exceed limit set by DGS for eligible materials.



Roles and responsibilities

- **Awarding authorities** also must prohibit successful bidder from installing eligible materials on an eligible project until that bidder submits an EPD to the awarding authority.
- **Awarding authorities** are any state agencies subject to the State Contract Act, Regents of the University of California, and Trustees of the California State University involved with public works contracts.



Original Key legislation dates

- January 1, 2019
- DGS shall establish and publish in the State Contracting Manual a maximum acceptable global warming potential for each category of eligible materials.
- July 1, 2019
- Contracts entered on or after this date between successful bidders and the awarding authorities will be subject to the requirements of the Buy Clean California Act.



Original Key legislation dates

- January 1, 2022 and every three years thereafter
- DGS shall review the maximum acceptable global warming potential for each category of eligible materials and may adjust the number downward to reflect industry improvements.
- January 1, 2022
- DGS shall submit a report to the Legislature on any obstacles to the implementation and effectiveness of the Buy Clean California Act to reduce global warming potential.



Assembly Bill 1817

- Assembly Bill (AB) 1817 was a trailer bill to the California budget approved on 6/27/18. It made the following key modifications to AB 262:
 - Extended by two years the date to set GWP limit and apply AB 262.
 - Allows exclusion of fabrication stage to set GWP limit.



Assembly Bill 1817

- AB 1817 was a trailer bill to the California budget approved on 6/27/18. It made the following key modifications to AB 262:
 - Gave awarding authorities ability to exclude AB 262 implementation if it is technically infeasible, significantly increases project costs or schedules, or results in a single source supplier. Implementation would also be excluded under emergency situations.
 - Implements a 2 year phase-in of EPD submissions.



Revised Timeline (AB 1817)

- Jan 1, 2019: An awarding authority shall request that the successful bidder for a contract submit a current facility-specific Environmental Product Declaration.
- Jan 1, 2020: An awarding authority shall require that the successful bidder for a contract submit a current facility-specific Environmental Product Declaration.



Revised Timeline (AB 1817)

- Jan 1, 2021: DGS sets maximum GWP limit on eligible materials and publishes it. A report to the Legislature that describes the method that the department used to develop the maximum global warming potential is also due.
- July 1, 2021: Requirements under AB 262 shall be applied to contracts entered on or after this date.



Revised Timeline (AB 1817)

- Jan 1, 2022: DGS to submit a report to the Legislature on any obstacles to the implementation of AB 262 and the effectiveness of AB 262 to reduce GWP.
- Jan 1, 2024 and every 3 years thereafter: DGS shall review the maximum GWP for eligible materials and adjust the number downwards as warranted by industry improvements.



Materials and agencies affected

- The Buy Clean California Act (aka AB 262) was signed into law on October 15, 2017. It is published under Public Contract Code, section 3500-3505. Modified by AB 1817.
- It will apply to four construction materials: structural steel, carbon steel rebar, flat glass, and mineral wool board insulation.



Materials and agencies affected

- Will apply to public works contracts with the following state agencies:
 - Department of General Services (Real Estate Services Division)
 - Department of Transportation
 - Department of Water Resources
 - Department of Parks and Recreation



Materials and agencies affected

- Will apply to public works contracts with the following state agencies:
 - Department of Corrections and Rehabilitation
 - University of California
 - California State University
 - Military Department



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Structural Steel EPDs
 - Product Category Rule (PCR):
 - North American Product Category Rule for Designated Steel Construction Products, Version 1.0, released 5/5/15
 - Life cycle stage covered: Product stage (aka: cradle to gate) based on information modules A1-A3
 - Program operator: SCS Global Services



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Material Scope
 - Hot-rolled sections
 - Hollow structural sections
 - Plate



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Carbon Steel Rebar EPDs
 - Product Category Rule (PCR):
 - North American Product Category Rule for Designated Steel Construction Products, Version 1.0, released 5/5/15
 - Life cycle stage covered: Product stage (aka: cradle to gate) based on information modules A1-A3
 - Program operator: SCS Global Services



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Material Scope
 - Plain carbon-steel bars for concrete reinforcement per ASTM A615/A615M
 - Plain low-alloy steel bars for concrete reinforcement per ASTM A706/A706M



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Flat Glass EPDs
 - Product category Rule (PCR):
 - GANA PCR for Flat Glass: UN CPC 3711, released 3/31/14
 - Life cycle stage covered: Cradle to gate
 - Program operator: NSF International
 - Material scope:
 - Clear or tinted float and rolled glass without additional processing such as coatings, tempering, and laminating



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Mineral Wool Board Insulation EPDs
 - Product Category Rule PCR:
 - Part B: Building Envelope Thermal Insulation EPD requirements, version 2.0, released 4/10/18
 - Life cycle stage covered: Cradle to installation and end of life (optionally cradle to grave)
 - Program operator: UL Environment



Environmental Product Declarations (EPD)

- Eligible material EPD requirements
 - Material scope:
 - Low and high density mineral wool board made of rock and slag
 - Light density: 2.5 – 4.2 lb/ft³ | 40 kg/m³ – 67.3 kg/m³
 - Heavy density: 4.3 – 8.0 lb/ft³ | 68.9 kg/m³ – 128 kg/m³



Global Warming Potential (GWP) Baseline Methodology

- GWP baseline formula – DRAFT

$$GWP_{\text{baseline}} = \frac{[\sum(GWP_{SSSF}) + \sum(n \times GWP_{SSMF}) + \sum(n \times GWP_{IW})]}{\sum(N)}$$

- GWP compliance limit - DRAFT



$$GWP_{\text{baseline}} = \frac{[\sum(GWP_{SSSF}) + \sum(n \times GWP_{SSMF}) + \sum(n \times GWP_{IW})]}{\sum(N)}$$

- Perform a weighted GWP average from published EPDs for eligible materials. Valid EPD types include:
 - Single supplier, single production facility (SSSF) EPDs
 - Single supplier, multi-production facility (SSMF) EPDs
 - Industry-wide (IW) EPDs
- n = number of production facilities in SSMF or producers in IW EPDs
- N = total number of production facilities from all EPDs used in calculation



GWP Compliance Limit - DRAFT

- GWP compliance limit = $GWP_{\text{baseline}} + 20\%$



GWP Compliance Limit - DRAFT

Material	Subcategory	(D)eclared or (F)unctional unit	GWP unit	GWP baseline	Fabricated GWP compliance limit
Structural steel	Hot-rolled sections	1 metric ton of steel product (D)	1 metric ton of CO ₂ eq.	1.02	1.22
	Hollow structural sections	1 metric ton of steel product (D)	1 metric ton of CO ₂ eq.	2.39	2.87
	Plate	1 metric ton of steel product (D)	1 metric ton of CO ₂ eq.	1.47	1.76
Carbon steel rebar	Uncoated carbon steel and low alloy	1 metric ton of steel product (D)	1 metric ton of CO ₂ eq.	.85	1.02



GWP Compliance Limit - DRAFT

Material	Subcategory	(D)eclared or (F)unctional unit	GWP unit	GWP baseline	GWP compliance limit
Flat glass	Clear or tinted	1 metric ton of flat glass (D)	kg of CO ₂ eq.	936.33	1124
Mineral wool board insulation ²	Light density board insulation	1 m ² of insulation material, average thermal resistance R = 1 m ² K/W, building service life of 75 years (F)	kg of CO ₂ eq.	2.84	3.41
	Heavy density board insulation	1 m ² of insulation material, average thermal resistance R = 1 m ² K/W, building service life of 75 years (F)	kg of CO ₂ eq.	7.94	9.53



What does DGS need from the industry?

- EPDs for eligible materials are developed according to the selected PCR for each eligible material. This applies to both domestic and foreign suppliers.
- EPDs published in recognized databases for EPDs or program operators' websites.



What does DGS need from the industry?

- When developing EPDs for structural steel and rebar, do not aggregate the GWP module data (i.e., A1-A3) to allow maximum flexibility of setting compliance limits.
- Additionally, for structural steel and rebar, report results for one metric ton of product that is not fabricated or manufactured in EPD.



What does DGS need from the industry?

- EPDs for mineral wool insulation board to continue reporting separate GWP figures for light and heavy density insulation board types.
- EPDs, EPDs, EPDs.



Activity to Date

- Research:
 - Conducted background research on eligible materials, Environmental Product Disclosures (EPDs), Product Category Rules (PCRs), and ISO standards.
 - Met with DGS legislative analyst to understand AB 262 development history.
 - Met with DGS legal for clarification and interpretation of legislation.
 - Discussed similar programs with High Speed Rail and Oregon Dept. of Environmental Quality.
 - Engaged with external stakeholders.



Activity to Date

- Agency coordination:
 - Initial kickoff meeting on 12/21/17.
 - Follow-up agency meetings on 3/15/18, 4/18/18, 6/5/18, and 9/26/2018.
- External outreach event:
 - Conducted at DGS headquarters on 6/26/18.



External stakeholder engagement

- Industry trade groups:
 - AISC – American Institute of Steel Construction
 - CRSI – Concrete Reinforcement Steel Institute
 - NAIMA – North American Insulating Materials Association
 - NGA – National Glass Association
 - NSBA – National Steel Bridge Alliance
 - SRI – Steel Recycling Institute
 - STI – Steel Tube Institute



External stakeholder engagement

- Suppliers:
 - Nucor
 - Owens Corning
 - Rockwool
 - Knoff Insulation
 - Vitro Glass
 - Guardian Glass



External stakeholder engagement

- Bill Proponents:
 - Sierra Club
- Program Operators:
 - SCS Global Services
 - UL Environment
 - NSF
- Other:
 - Oregon Department of Environmental Quality
 - High Speed Rail



Industry concerns

- Steel and Rebar:
 - Don't think most fabricators have the resources to conduct a Life Cycle Analysis (LCA) or produce EPDs.
 - Large burden on fabricators who only represent 5%-10% of the overall Global Warming Potential (GWP) contribution for a fabricated product. Trade groups would rather focus on producer impacts.



Industry concerns

- Glass:
 - Limited number of EPDs to develop GWP limit. Total of 3 EPDs today.
 - GWP limit based on an average will cut out half the number of suppliers.
 - Suppliers don't want to be sole-source to state projects.
 - Doesn't understand why flat glass was targeted in legislation.



Industry concerns

- Mineral Wool:
 - Believes AB 262 causes unfair competition for mineral wool board insulation since other competitive insulating materials are not targeted in legislation.



Next Steps to Roll Out Legislation

- AB 1817
 - Work with agencies to review and update implementation proposals communicated at external outreach event.
- Outreach
 - Post public comment Q&A on AB 262 website. Comment period closed on August 10th.
 - Hold additional outreach to communicate new proposals.



Next Steps to Roll Out Legislation

- Finalizing GWP limit
 - Collect EPDs for final GWP limit calculation.
 - Develop legislative report on methodology by Jan 1, 2021. Publish GWP limit by Jan 1, 2021.
- Agency policy development and coordination
 - Align policy with awarding agencies.



Issues to Resolve

- Industry doesn't agree with single facility EPD requirement for compliance.
- Industry provides non-ISO 14025 EPD for compliance.
- Lack of consistency between agency's compliance policies can cause industry confusion and impact projects.



Questions??

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