

CARBON REDUCTION

NONRESIDENTIAL EXISTING REGULATIONS

REUSE- The 2022 CALGreen includes a reserved mandatory section for deconstruction and reuse of existing structures. It also contains a voluntary measure that can be used by design professionals or adopted by local jurisdictions. It requires that at least 75 percent of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing) based on surface area be maintained.

LIFE CYCLE ASSESSMENT (LCA)- The 2022 CALGreen includes a reserved mandatory LCA section. It also contains a voluntary measure that can be used by design professionals or adopted by local jurisdictions. The voluntary regulation requires a whole building life cycle assessment (WBLCA) to be conducted that achieves at least a 10% improvement in environmental impact for specific building components.

The proposed regulations would include new mandatory measures and update the voluntary measures accordingly.



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NONRESIDENTIAL PROPOSED MANDATORY MEASURES

The proposed mandatory measures are specific to nonresidential buildings 50,000 sf (project aggregate) or greater.

1. REUSE- When reusing a building, maintain 45% of the existing structure and enclosure.
2. WBLCA Performance Path- For new buildings, conduct a cradle-to-grave whole building life cycle assessment demonstrating at 10% reduction in global warming potential (GWP).
3. Prescriptive Path - For new buildings, products shall comply with GWP values and environmental product declaration (EDP) shall be included on the construction documents. Based on 175% of IW-EDP GWP values (Buy Clean California Act) and 130% of ready-mixed concrete GWP values.

	Existing Voluntary	Mandatory 50,000 sf (project aggregate)	Tier 1 50,000 sf (project aggregate)	Tier 2 50,000 sf (project aggregate)
Building Reuse	75% of the structure and enclosure to be reused.	45% of structure and enclosure to be reused.	75% of the structure and enclosure to be reused.	75% of the structure and enclosure to be reused, AND 30% of interior non-structural elements to be reused.
WB LCA	10% reduction from baseline	10% reduction from baseline	15% reduction from baseline	20% from baseline
Prescriptive Approach	--	175% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	150% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	IW-EPD GWP limits; concrete 130% of ready-mixed GWP values



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NONRESIDENTIAL PROPOSED VOLUNTARY MEASURES

The proposed voluntary measures are specific to nonresidential buildings 50,000 sf (project aggregate) or greater.

1. REUSE- Tier 1 - When reusing a building, maintain 75% of the existing structure and enclosure. Tier 2- plus 30% of the interior non-structural elements.
2. WBLCA Performance Path- Tier 1 - conduct a cradle-to-grave whole building life cycle assessment demonstrating at 15% reduction in GWP. Tier 2 – 20%
3. Prescriptive Path - Tier 1- For new buildings, products shall comply with GWP values and environmental product declaration (EDP) shall be included on the construction documents. Based on 150% of IW-EPD GWP values and 130% of ready-mixed concrete GWP values. Tier 2- Comply with IW-EPD GWP values.

	Existing Voluntary	Mandatory 50,000 sf (project aggregate)	Tier 1 50,000 sf (project aggregate)	Tier 2 50,000 sf (project aggregate)
Building Reuse	75% of the structure and enclosure to be reused.	45% of structure and enclosure to be reused.	75% of the structure and enclosure to be reused.	75% of the structure and enclosure to be reused, AND 30% of interior non-structural elements to be reused.
WB LCA	10% reduction from baseline	10% reduction from baseline	15% reduction from baseline	20% from baseline
Prescriptive Approach	--	175% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	150% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	IW-EPD GWP limits; concrete 130% of ready-mixed GWP values



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NONRESIDENTIAL PROPOSED VOLUNTARY MEASURES (CONT.)

Additional paths for buildings less than 50,000 sf to achieve Tier 1 and Tier 2 compliance:

1. REUSE- Tier 1 – Comply with mandatory measures. Tier 2- Comply with Tier 1 .
2. WBLCA Performance Path- Tier 1 - Comply with mandatory measures. Tier 2- Comply with Tier 1 .
3. Prescriptive Path - Comply with mandatory measures. Tier 2- Comply with Tier 1 .

And a path for all projects to achieve Tier 2 compliance:

1. Tier 2 Additional Impacts (existing voluntary measures retained, not based on sf)– WBLCA on fossil fuel depletion, stratospheric ozone depletion, acidification of land and water sources, eutrophication, and photochemical oxidants.

	Existing Voluntary	Mandatory 50,000 sf (project aggregate)	Tier 1 50,000 sf (project aggregate)	Tier 2 50,000 sf (project aggregate)
Building Reuse	75% of the structure and enclosure to be reused.	45% of structure and enclosure to be reused.	75% of the structure and enclosure to be reused.	75% of the structure and enclosure to be reused, AND 30% of interior non-structural elements to be reused.
WB LCA	10% reduction from baseline	10% reduction from baseline	15% reduction from baseline	20% from baseline
Prescriptive Approach	--	175% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	150% of IW-EPD GWP limits; concrete 130% of ready-mixed GWP values	IW-EPD GWP limits; concrete 130% of ready-mixed GWP values

