

“Buy Clean” Legislation

“Buy Clean” legislation aims to regulate the “embodied” greenhouse gas (GHG) emissions in building materials like concrete and steel, meaning the sum total of GHGs emitted in the manufacturing process.

Under this system, state agencies set a cap on maximum emissions allowed per-material or per-product. These caps are based on arbitrary limits rather than industry benchmarks. State-funded projects are then prohibited from using any materials whose embodied emissions are higher than that maximum. Bidders are “pre-qualified” for state-funded projects using reporting metrics.

The burden of proof to show that emissions are below the threshold is put on the manufacturer. Each manufacturer is usually required to produce a facility-specific or product-specific environmental product declaration (EPD) to report their embodied GHG emissions.

NRMCA opposes “Buy Clean” legislation because:

- All construction materials and their supply chains have GHG emissions contributing to GWP. The mandate use of EPDs for concrete “pre-qualification” only focuses on the embodied impacts of concrete materials and not other materials with even greater environmental impacts.
- EPDs are especially costly for the concrete and cement industries to produce, because there is a large variation between mixes, each of which would require a product-specific EPD. This cost can be prohibitive for local small business.
- Establishing a maximum emissions limits of a product on the a mix as “pre-qualification” is also irresponsible because this approach does not take into account the performance requirements for thousands of variations of products and materials leading to incorrect comparisons and decisions. The EPD’s report emissions based on 28-day strength. This does not allow optimization of mixes within a project based on shorter or longer performance times.
- EPDs created by different organizations using different assessment tools but the same product category rules (PCR) are not comparable, because of significant differences in the background data they use.
- Focusing on CO2 impacts only tell part of the environmental story. Some of the most significant impacts are ignored, including harm to forest ecosystems, aquatic biodiversity, soil quality, and “downstream” carbon emissions in the use phase of the building.
- This approach to regulation also neglects more holistic measures of a building’s impact on global warming, such as life-cycle analyses (LCAs), which account for the total emissions caused over the whole lifespan of a building. Concrete buildings last longer than other materials, so they need to be demolished and rebuilt less frequently, reducing emissions. Concrete can also provide thermal mass, saving on heating bills, and therefore saving emissions, over a building’s lifetime.

Green building standards like LEED v4 include credits for optimizing EPDs and whole-building LCAs. Achieving a certain rating through LEED or Green Globes or CalGreen is already a common requirement for government-funded buildings in many states. They allow more flexibility than the “Buy Clean” approach that could close local small business out of state building contracts because they can’t afford to “pay to play”.