

SE 2050 ECAP Submission Form

Email *

egood@degenkolb.com

Firm Name *

Degenkolb Engineers

Education

The first step to increased engagement within your firm is through education. We all should strive to understand the impacts of our design decisions and their effects on our environment.

Distribute firm-wide announcement of your firm's pledge to join the SE 2050 Commitment. *

Completed

Not Completed

Provide a brief narrative describing how your firm is promoting a firm-wide education program for embodied carbon reduction and the firm's commitment to SE 2050. *

We are using multiple communications channels to educate our staff and project teams on embodied carbon, strategies for reduction, tools for measurement, and our SE 2050 commitment. These include firm-wide lunch meetings, posts in our company intranet (Yammer and Degnet), and nomination of a point person in each office region.

Name of Embodied Carbon Champion (Point Person) *

Elena Good

Email of Embodied Carbon Champion *

egood@degenkolb.com

Phone number of Embodied Carbon Champion *

510-250-1235

LinkedIn URL

<https://www.linkedin.com/in/elena-good-p-e-377616b2/>

Set a date within the first year to present the “Embodied Carbon 101” Webinar to your firm. Incorporate this information into your orientation/on-boarding programs. *

Committed / Completed

Not Committed / Not Completed

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

Committed / Completed

Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- Have one representative of your firm (any employee) attend quarterly external education programs (e.g. webinar, workshop) provided by SE 2050, Carbon Leadership Forum (CLF), or other embodied carbon resources.
- Share the SE 2050 library of resources with technical staff.
- Share embodied carbon reduction strategies with your firm as outlined in Top 10 Carbon Reducing Actions for Structural Engineers document produced by SE 2050.
- Nominate a minimum of (1) employee per office to participate in a CLF Community Hub.
- Provide narrative outlining plans for minimum (2) firm-wide presentations per year on the topic of embodied carbon
- Present the document, "How to measure and report embodied carbon" to all technical staff.
- Attend a presentation or demo of an LCA-based tool used to calculate embodied carbon.
- Initiate an embodied carbon interest group within your firm and provide a narrative of their goals.
- Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office. (intended for multi-office firms)
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Reporting

Quality data is essential to making informed decisions and setting important benchmarks and the development of appropriate embodied carbon reduction targets. The SE 2050 database is a central component to building a successful Commitment Program and reaching our collective embodied carbon reduction goals by 2050.

Submit an annual minimum of (2) projects per U.S structural office or (5) total projects for the firm to the SE 2050 Database. *

- Completed
- Committed and on track
- Need help reaching this target
- Not Completed

Number of Projects Reported Last Year (zero in first year)

0

Number of Offices Reporting Last Year (zero in first year)

0

Provide a narrative on how your firm plans to measure, track, and report embodied carbon data. *

In this first year as part of SE 2050, we are developing our in-house LCA capabilities on two main fronts. First, we are evaluating various commercially available LCA software (Tally, Beacon, OneClick) to identify which best fit our workflows and needs. Second, we are working to develop our own internal LCA tools which integrate with ETABS and hand material quantity takeoffs to allow for embodied carbon calculations on projects that do not have a Revit model. We are using EC3 to find applicable industry-wide and product-specific EPDs, and are primarily considering stages A1-A3 (raw material extraction through manufacturing) for LCAs.

Describe the internal training for embodied carbon measurement you provided or will provide. *

Training on embodied carbon measurement will be included in the broader firm-wide education program described above. This includes an intranet page for internal information-sharing, and webinars and other meetings of the Embodied Carbon Interest Group. Additionally, the members of the Sustainability Committee deeply involved in development of our in-house LCA capabilities will serve as in-house experts in each office and mentor other engineers as needed on projects.

ELECTIVES (Not required, recommended to achieve (1) per year):

- Submit all projects to the SE 2050 Database
- Meet your target average embodied carbon reduction from the previous year.
- Report a greater percentage of projects than the preceding year.
- For a project submitted to the database, ask the Architect or Owner if the project has a carbon budget or if there are established project sustainability goals at the project kickoff meeting.
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Embodied Carbon Reduction Strategies

Embodied carbon reduction of structural materials is the ultimate goal of the SE 2050 program. As a starting point, you will have access to the SE 2050 project database and Program resources to identify and set strategies. This section also serves to share lessons learned and incite innovation. Demonstrate leadership by not only applying, but developing best practices and actively collaborating with the design community. This is our profession's opportunity to take action and make an impact.

Set an EC reduction goal for the coming year and an implementation narrative (Qualitative goals focused on education are appropriate for the first year) *

In the first year of Degenkolb's involvement with SE 2050, our primary goal will be to educate the firm about embodied carbon, develop our capabilities to measure and track it, and begin to establish baseline embodied carbon quantities for various project types. As we grow our firm's understanding of embodied carbon and LCA capabilities, we will identify targeted areas of opportunity for reduction.

For second year's ECAP and beyond, provide a narrative about what you have learned about embodied carbon reduction in the past year. Describe successes and misses to help the program improve.

N/A - first year ECAP

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

Committed / Completed

Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- Incorporate data visualization into your ECAP. How are you looking at data to make informed design decisions and communicate design options to your clients?
- Provide a project case study in your ECAP that captures a reduction of embodied carbon or some lessons learned.
- Create a project-specific embodied carbon reduction plan.
- Complete a system embodied carbon design comparison study during the project concept phase.
- Participate in a project LEED design charrette and speak to potential design considerations impacting embodied carbon.
- Calculate your firm average benchmark for embodied carbon.
- Update your specifications and incorporate embodied carbon performance. Include embodied carbon in your submittal review requirements.
- Collaborate with your concrete supplier to reduce embodied carbon in a mix design.
- Work with a contractor during material procurement to meet an embodied carbon performance criteria on at least (1) project.
- Have an Environmental Product Declaration (EPD) created as a result of a project.
- Incorporate biogenic materials on at least one project annually.
- Provide a narrative of how circular economy has been used on your projects. Incorporate re-use or design for deconstruction into at least one project.
- Quantify construction waste reduction on a project and the impact to embodied carbon.
- Integrate embodied carbon mitigation strategies in your General Notes.
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Advocacy

True change can only come with industry-wide adoption. This section recognizes that our impact reaches beyond any one firm. Plan opportunities to share your experience and knowledge within your firm, with your design community, and beyond. Host a webinar or lunch 'n learn, attend a conference, connect with the SEI Sustainability Committee, or reach out to manufacturers and policy-makers.

Provide a narrative about how you plan to share knowledge and data to accelerate adoption of embodied carbon reduction. *

Our first steps in broadening awareness and action on embodied carbon reduction are in internal education. Training and educating our project managers and staff engineers will give them the knowledge and motivation to advocate for reduced carbon impacts on their projects. As we progress through the year, we will develop baseline presentations that can easily be adopted to particular client meetings.

Describe the value of SE 2050 to clients. How can we collaborate to drive adoption? At your option, attach any associated marketing materials. *

We are developing materials to inform and educate our project managers, who can then advocate for consideration of embodied carbon on our projects with various project teams.

Optional: Upload any documents you would like to exhibit.

Declare your firm as a member of the SE 2050 commitment on boilerplate proposal language. *

Committed / Completed

Not Committed / Not Completed

ELECTIVES (Not required, recommended to achieve (2) per year):

- Share your commitment to SE 2050 on your company website
- Give an external presentation on embodied carbon that demonstrates a project success or lessons learned (Tip: Get connected at a CLF local hub near you!)
- Discuss with the Owner / Client the option of requiring that some of the structural materials come with facility-specific or product-specific EPDs
- Share education opportunities with clients
- Provide a narrative of how you have encouraged industry and policy change incentivizing availability of low-carbon and carbon sequestration materials
- Start an embodied carbon community of practice or mentorship program in your office
- Mentor a firm new to the embodied carbon space
- Other action you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Program Feedback

Please add any comments that you wish to share publicly. The Program Leadership Group is committed to transparently improving SE 2050.

Comments:

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