

# SE 2050 Program Requirements Guidance Document

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## Submission Process

This section describes how each **requirement** should be submitted to SE 2050. Refer to the *Submission Materials* section of this document for the submission timeline. Refer to the *Submission Material Descriptions* section of this document for more elaboration on each item. The primary method of submission is through the **Embodied Carbon Action Plan (ECAP)**, which contains almost all SE 2050 requirements.

### There are (2) ways to submit an ECAP:

1. Fill out the [ECAP Submission Form](#) that takes you through each of the requirements described in this document.
2. Create your own ECAP according to this document. Feel free to reference [existing ECAPs on the SE 2050 website](#).

### This is how to include submission items in your ECAP. Feel free to get creative!

*Included and labeled in your first ECAP as a screenshot, inserted page, or line of text.*

- **Commitment Letter**
- **Internal Announcement**
- **Selecting and naming an embodied carbon champion**

*Included and labeled in your ECAP as a separate section with text, supplementary images, and graphics as needed.*

- **Education Plan**
- **Knowledge Sharing Narrative**
- **Reduction Strategy**
- **Reporting Plan**
- **Elective Documentation**
- **Lessons Learned**

*NOT included in the ECAP and instead submitted through [this online database](#). You're welcome to include some case studies in your ECAP if you want!*

- **Project Data**

## Submission Materials

These are the required submission items and their deadlines. Bolded items are items to be included in the Embodied Carbon Action Plan (ECAP), as defined in the *Submission Material Descriptions* section. Timely completion of these criteria is required to be considered a SE 2050 signatory firm. **If either your ECAP or project data is more than (3) months late, your firm will be moved to *Inactive* status for that submission year.**

We hope to provide you with as much guidance as you need to complete these tasks, so we will be sending email reminders about your ECAP and project data deadline every 3 months. Contact us at [contact@se2050.org](mailto:contact@se2050.org) with questions or comments, or refer to our [Resources](#) page.

## First Year

### *Immediately*

- Submit a **Commitment Letter** from firm leadership.
- Distribute an **Internal Announcement** announcing your firm's pledge to join SE 2050 along with [embodied carbon resources](#).
- Select and nominate an internal embodied carbon champion. You may nominate a new champion at any point, just be sure to email us with the update.
- Send your firm's high-resolution logo to [contact@se2050.org](mailto:contact@se2050.org) to be included on the SE 2050 website.

### *March of the following calendar year*

If you join anytime in 2024, you should submit your ECAP and project data by March 31, 2025.

- Submit your complete **Embodied Carbon Action Plan (ECAP)** either via email to [contact@se2050.org](mailto:contact@se2050.org) or using the [online form](#). Include all sections below, referring to the *Submission Material Descriptions* section for details on each submission requirement. ECAPs will be published on [our list of signatory firms](#), but we encourage you to distribute the ECAP within your firm to celebrate your efforts.
  - **Commitment Letter** (first year only)
  - **Internal Announcement** (first year only)
  - **Education Plan**
  - **Knowledge Sharing Narrative**
  - **Reduction Strategy**
  - **Reporting Plan**
  - **Elective Documentation**
  - **Lessons Learned** (each returning year)
- Submit project data to [SE 2050 database](#). All data submitted is anonymized. See the *Reporting* section to see how many projects your firm needs to submit.

- Electives as described in the *Electives* section in this document.

## Returning year

- You are welcome to change your embodied carbon champion at any time (or not at all), but you may use this as a chance to change your champion. Just email us at [contact@se2050.org](mailto:contact@se2050.org) with their name, title, and email.

If the embodied carbon champion is the firm's administrator in the SE 2050 database, you may also want to hand over this responsibility. The former embodied carbon champion will need to update their status and promote the new embodied carbon champion to the firm's administrator in the database.

## By the following March

- Submit your ECAP as described in this document. You are *not* required to resubmit a Commitment Letter or an Internal Announcement.
- Submit project data to [SE 2050 database](#). All data submitted is anonymized.
- Electives as required in this document.

## Submission Material Descriptions

### Commitment Letter

An affirmation of your firm's commitment to the goals of the program. You may use a [template](#) or write your own, but either way it must be signed by leadership of the firm and should contain:

- A statement affirming your firm is committed to the goals of the SE 2050 Commitment Program
- An explanation of your motivation behind this commitment
- A signature from a leader in the firm.

### Internal Announcement

A notification of your firm's decision to join the SE 2050 Commitment sent to all employees.

### Education Plan

An outline of your firm's strategy to educate employees about embodied carbon. This internally focused communication is meant to empower your firm to take action within the scope of your commitment and beyond.

### Knowledge Sharing Narrative

An outline of your firm's strategy to communicate your embodied carbon reduction work externally. This includes sharing your firm's efforts, successes, and lessons learned with clients, the design community, and the public.

### Reduction Strategy

Specific and measurable goals to assess your firm's progress in reducing embodied carbon in project work over the short-term (<1 year), and long-term (5+ years). While the long-term goals may change over time, it is important to consider and implement large-scale changes in the way your firm approaches structural design to reduce embodied carbon. You will have access to the [SE 2050 project database](#) and program resources to identify and set reduction strategies.

### Reporting Plan

A description of how your firm will measure, track, and report embodied carbon data. This should include a scope of how detailed your accounting will be and how many projects will be measured. This plan should answer questions like:

- How will you calculate embodied carbon for structural materials?

- What is your firm’s methodology for finding, selecting, or requesting EPD data when calculating embodied carbon or specifying materials on your project?
- What life-cycle assessment (LCA) software(s) will you be using to quantify embodied carbon?
- What is the scope of your LCA (e.g. A1-A3, A1-A5, A-C, A-D)?
- How will you calculate material quantities and at which project stages?

## **Elective Documentation**

This document is a description of the electives your firm completed or intends to complete in the year of this ECAP submission. It is perfectly acceptable to change electives between ECAP submission and the end of year, but be sure to reflect on this in the *Lesson Learned* section the following year. The four categories of elective are listed below with descriptions of all available electives in the following pages. We understand these electives vary in difficulty for large and small firms, so please adjust your strategy accordingly and reach out if you have any questions, need clarification, or would like to propose alternative means of compliance.

- Education (2) required, (4) recommended
- Reporting (1) required, (2) recommended
- Reduction (1) required, (4) recommended
- Advocacy (2) required, (4) recommended

## **Lessons Learned**

A summary of what you have learned as a firm over the previous year of embodied carbon reduction. Use this to inform your strategies for the coming year.

## Electives

**Bolded** electives are required

## Education

(2) required, (4) recommended

- **Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office.**
- **Present at least (1) webinar focused on embodied carbon and make a recording available to employees. This could be created internally, pulled from an external source (with permission), or pulled from a publicly available source such as the [Boston Society for Architecture](#) . Include this resource in your orientation and on-boarding program.**
- Incorporate embodied carbon education in your onboarding process for all new employees.
- Train all of your firm's structural engineers on the core concepts and skills required to measure, reduce, and report embodied carbon. (Ref. [SE 2050 Resources](#))
- Initiate an embodied carbon interest group within your firm and outline their goals. This group may more broadly address sustainability, but they must include embodied carbon.
- Create an Embodied Carbon digital resource wiki and/or forum on your firm's internal website for staff to create, share, and discuss Embodied Carbon educational resources.
- Engage with a CLF Regional Hub. This could mean:
  - Attending presentations or working sessions and reporting back to the firm
  - Co-chairing a hub
- Propose other actions promoting embodied carbon education and describe their value.

## Reporting

(1) required, (2) recommended

- **Submit a minimum of (2) projects per U.S. office with structural engineering services to the SE 2050 Database. You are not required to submit more than (5) total projects across your firm, but we encourage you to submit as many as possible! Firms are expected to follow with the spirit of the SE 2050 Program in determining how many total projects your firm must submit. You do not need to consider offices that only offer construction administration services or offices with fewer than (5) full-time employees.**
- For multi-office firms, describe how each office is measuring and reporting embodied carbon. For single-office firms, describe how different project teams or managers are measuring and reporting embodied carbon.
- Compare the embodied carbon emissions from multiple projects across your firm. Analyze and document what data or pieces of information are most important and communicate the findings to your firm.
- Include all structural material quantities in your submissions to the SE 2050 database.
- Propose other actions that promote the reporting of embodied carbon data and describe their value.



## Reduction

(1) required, (4) recommended

- **Set clearly stated, firm-wide reduction targets in the short-term (<1 year) and long-term (>5 years)**
- Submit a Circular Economy Narrative describing how a project supports the circular economy. This can be done by incorporating re-use or design for deconstruction into at least one project.
- Develop and implement a workflow that makes it easier to make early design decisions based on embodied carbon.
- Update your specifications to incorporate embodied carbon performance. Include embodied carbon in your submittal review requirements.
- Communicate the embodied carbon impacts of different design options to clients with creative and effective data visualization. You are welcome to include these visualizations in your Elective Documentation, though it is not required if your firm would prefer to keep marketing materials private.
- Compare different design options with embodied carbon as a performance metric during the project concept phase. Explain what you did and what the results changed (if anything).
- Participate in a LEED, ILFI Zero Carbon, or similar project design charrette and speak to potential design considerations impacting embodied carbon.
- Collaborate with your concrete supplier to reduce embodied carbon in a mix design below an acceptable baseline (e.g. NRMCA regional baseline values). Discuss what you found and what it means in your market.
- Have an Environmental Product Declaration (EPD) created for a project. Get a project or client to require the creation of an Environmental Product Declaration (EPD) that did not exist before.
- Incorporate sustainably harvested biogenic materials in at least one project.
- Propose other embodied carbon reduction strategies and describe their value.

## **Advocacy**

**(2) required, (4) recommended**

- **Describe the value of SE 2050 to clients. How can your design teams collaborate to reduce embodied carbon? Please attach any associated marketing materials**
- **Publicly declare your firm as a member of the SE 2050 Commitment however you see fit (e.g. on your website, LinkedIn, or other social media).**
- Give an external presentation on embodied carbon that demonstrates a project success or lessons learned. Get connected at a CLF regional hub near you and be sure to post the recording.
- Mentor a firm new to the embodied carbon space. Describe how you identified their needs and what improvements were made.
- Engage with structural material suppliers in your region to communicate the importance of Environmental Product Declarations (EPDs) and low-carbon material options.
- Engage with local, state, and federal governments to communicate the importance of low-embodied carbon procurement and construction policies, and provide expert testimony to this effect.
- Propose alternative methods for advocacy and describe their value.