IRA Section 60506:
Low Carbon Transportation Materials Grant Program

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Disclaimer

Non-Binding Contents
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Images
Unless otherwise noted, FHWA is the source for all images in this presentation.
Acronyms

- EPA – Environmental Protection Agency
- EPD – Environmental Product Declaration
- FHWA – Federal Highway Administration
- GWP – global warming potential
- IPR – Implementation Process Report
- IRA – Inflation Reduction Act
- LCTM – low carbon transportation material
- NOFO – Notice of Funding Opportunity
- RFA – Request for Applications

What is the Low Carbon Transportation Materials (LCTM) grant program?

- Established by Section 60506 of the Inflation Reduction Act (IRA) and codified in Section 179 of 23 U.S.C.
- $2B grant program for eligible projects that include materials and products determined to have “substantially lower levels of embodied greenhouse gas emissions,” as described by the Environmental Protection Agency (EPA)
- Provides either a reimbursement (equal to the incrementally higher cost) or incentive (2% of the cost of the eligible material or product)
Funding Information

State DOTs via Request for Applications (RFA)

- RFA available on LCTM Webpage
- Up to $1.2B for State DOTs
  - Anticipated award: At least $22M per State DOT submitting responsive application

Non-State DOTs via Notice of Funding Opportunity (NOFO)

- NOFO will be available on Grants.gov (anticipated in the coming months)
- Anticipated $800M for non-State DOTs

**NOTE:** All funds must be obligated by September 30, 2026, and are available for expenditure through September 30, 2031.

Eligible Projects

- Funds available for use on Title 23 construction projects:
  - Federal-aid highways
  - Tribal transportation facilities
  - Federal lands transportation facilities
  - Federal lands access transportation facilities

- Funds may be used for activities required to develop a process to demonstrate that materials:
  - meet the standard of ‘substantially lower embodied carbon’
  - are appropriate for use on eligible construction projects

**NOTE:** funds shall not be used for projects that result in additional travel through lanes for single occupant passenger vehicles. See 23 U.S.C. 179(b)(4)(C).
Defining LCTMs (Material Categories)

- **EPA Interim Determination** issued 12/12/2022
- For the purposes of the RFA, eligible materials are:
  - Concrete (and cement);
  - Glass;
  - Asphalt mix;
  - Steel; and
  - Assemblies comprised of at least 80 percent of materials that qualify under EPA's interim determination, by total cost or total weight.

Defining LCTMs (Qualification of Materials for Construction)

- **EPA Interim Determination** issued 12/12/2022
- Material is from an eligible material category
- Cradle-to-gate Type III Environmental Product Declarations (EPDs)
  - Based on the relevant Product Category Rule;
  - Valid at material placement on construction projects.
- Is below the thresholds determined from a published industry benchmark.
  - 20th percentile, 40th percentile, and better than industry average depending on a project’s location
- Material supplier provide (if available) the upstream manufacturing’s ENERGY STAR Energy Performance Score where an Energy Performance Indicator is available
Examples of Eligible Activities

- Process for Substantially Lower Carbon
- LCTM Quality Assurance and LCTM Specifications
- Construction Project Identification
- Use of LCTM on Construction Projects

Example Eligible Activities

*See State RFA, Table 1*

1. **Process for Substantially Lower Carbon**
   - Academia or Consultant support to identify eligible materials, training needs, additional data, and special provision development.
   - Development of a process to collect and store EPDS.
   - Identification of local or regional “substantially lower” embodied carbon thresholds that meet ISO acceptable practices.
   - Quality incentives for environmental performance.
Example Eligible Activities

See State RFA, Table 1

- **LCTM Quality Assurance and LCTM Specifications**
  - Update of existing materials specifications or development of new special provisions to facilitate use on projects.
  - Preliminary mixture design and testing to evaluate materials.
  - Testing equipment to properly accept and verify LCTM.
  - Quality incentives for engineering performance.

Example Eligible Activities

See State RFA, Table 1

- **Construction Project Identification**
  - Develop a plan for incorporation of LCTM on construction projects.
  - Development of project-specific construction contract language.
  - Industry outreach and coordination.
Example Eligible Activities
See State RFA, Table 1

Use of LCTM on Construction Projects

• Comparison of LCTM costs and traditional materials.
• LCTM bid items (added solely to facilitate use of LCTM).
• Construction and placement costs of using eligible materials on eligible projects.
• Development of project-specific performance monitoring plan.

Selection Process – State RFA

• Applications will be assigned a rating of “Responsive” or “Not Responsive” to the evaluation factors

A “Responsive” application addresses each factor and subfactor in the RFA and provides sufficient information to determine that the project meets statutory eligible application criteria.
In accordance with the RFA, Responsive Applications must address:

1. **Substantially Lower Embodied Carbon Identification**
   - Identification of eligible construction materials
   - Substantially lower embodied carbon threshold
   - Energy Star Performance Score
   - EPD process

2. **Quality Assurance and Materials Acceptance**
   - Material specification
   - Verification process
   - Performance monitoring plan

3. **Use of Materials and Products on Construction Projects**
   - General approach
   - Stakeholder outreach
   - Calculating Incentive or Reimbursement
   - Identification of eligible construction projects

4. **Schedule and Budget**
   - Start and end dates and estimated budget for each major milestone, activity, and deliverable

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**Resources**

- LCTM website: [www fhwa dot gov/lowcarbon/](http://www.fhwa.dot.gov/lowcarbon/)
- Email: [FHWALowCarbonMaterials@dot.gov](mailto:FHWALowCarbonMaterials@dot.gov)

- Q&A
- Fact Sheets
- Link to EPA Interim Determination
- Technical Resources

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**LOW CARBON TRANSPORTATION MATERIALS**