

August 15, 2024

NEx Request for Proposals Notice

NEx encourages you to submit proposals focused on the topic described below:

NEx RFP Id: SG25.01

Proposal Title: Develop an engineering guideline for the use of polymers in lightweight concrete

Background

Lightweight concrete is increasingly being used in construction due to its advantages in reducing structural loads, improving thermal insulation, and enhancing workability. The incorporation of polymers into lightweight concrete can further enhance its properties by improving tensile strength, reducing permeability, and increasing durability. However, there is a need for standardized engineering guidelines to ensure the effective and consistent use of polymers in lightweight concrete applications.

Proposal Request

The construction industry lacks comprehensive guidelines for the use of polymers in lightweight concrete. Polymers used as aggregates or binder in light weight concrete need further standardization in terms of physical, mechanical, polymer characterization, types and sources. Without standardized practices, the benefits of polymers may not be fully realized, leading to inconsistent performance and potential issues in construction projects. Developing these guidelines will provide clarity and direction for engineers and builders, ensuring that lightweight concrete with polymers is used effectively and safely.

NEx is seeking proposals from qualified organizations or research teams to develop comprehensive engineering guidelines for the use of polymers in lightweight concrete. The goal is to create a set of standards and best practices that will optimize the use of polymers in lightweight concrete applications, enhancing performance, durability, and sustainability.

NEx Mission Statement

Collaborate globally to expand and accelerate the use of nonmetallics in the built environment to drive innovation, research, education, awareness, adoption, and deployment.

NEx is committed to achieving its mission through Research and Development, Standards and Guidelines, Professional Development, and Advocacy and Awareness.

Funding Policy

NEx will impose a limit of 15% on indirect costs (overhead) by project organizations for any project it funds. The organization must waive the remainder of the indirect costs.

Award Amount

NEx does not impose any limit on the overall funding request; however, the anticipated budget for this project is to be around \$30,000 to \$50,000. Proposals with higher budget estimate will be accepted with information on budget spending relevant to the value added to the project scope. Co-funding and co-

sponsoring proposals with other organizations are welcomed.

Proposal Evaluation

NEx project proposals will be evaluated by the NEx Steering Committee. A winning proposal will be forwarded to the NEx Board of Directors with recommendations for funding.

Proposal evaluation criteria will include technical content, methodology, PI's relevant experience, potential impact/ industry adoption, budget and time, proposed deliverables, and outcome. Typically, NEx funded project duration ranges from 6 to 24 months.

Awarded Proposals

The awarded proposal is expected to commence within the first quarter of 2025

- NEx will enter into a contract with the awarded entity. As part of the contract, it is mandated that the overhead or indirect return be set at no more than 15% of the direct cost of the project funding requested from NEx. Any overhead over the maximum allowed 15% that is waived by the awarded entity shall be considered as cost sharing and shall be indicated on the budget table as waived overhead, separate from other co-funding. Non-compliant proposals in this regard shall be returned without review.
- The schedule of payments contingent upon milestone deliverables will be contained in the contract and will include, at a minimum, a final report deliverable to NEx. Quarterly progress reports will be identified in the final contract.
- If principal investigators (PI) from two organizations are collaborating on the project, the award must be to a single organization, which will then subcontract with the second organization.
- NEx will only consider funding projects that involves the use of proprietary products if the goal of the project is to advance knowledge in a particular area of study and not solely on a proprietary product.
- In case of any co-funding arrangement with other organization(s), commitment letter(s) from co-funding organization(s) is required before funds are dispersed from NEx.
- The results of NEx-funded project will be owned by NEx, and possibly by other co-founding organization(s). PI should notify NEx before publishing any results.

Where and How to Submit Proposals

Submitted proposals will be evaluated by the NEx Steering Committee and subject matter experts. Anyone who evaluates a proposal is required to agree and abide by NEx policies on confidentiality and conflict of interest.

Please email the proposal and supporting information to info@nonmetallic.org, by end of the day, **October 7, 2024**. The email subject line and file name shall include project ID (see top of page 1) and the name of the proposing organization (For example: "RD24.xx University of xyz").

If you have any questions regarding the proposal requirements or process, please contact NEx Technical Director, Aparna Deshmukh (aparna.deshmukh@nonmetallic.org).

Proposals submitted to NEx shall be provided in **one unprotected PDF** using [NEx provided template](#).