



Hochul declares \$21.5m available to lower emissions and sequester carbon

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New York, NY According to governor Kathy Hochul, more than \$8.5 million has been awarded for the development of innovative nature-based solutions to lower emissions and sequester carbon through round one of the Natural Carbon Solutions Innovation Challenge. In addition, more than \$13 million is now available through round two of the challenge for projects that mitigate the impacts of extreme heat and reduce building emissions with a focus on providing direct benefits to those most vulnerable to heat, including disadvantaged communities. The announcements support the state's Climate Leadership and Community Protection Act goal to reduce greenhouse gas emissions 85% by 2050.

Funding for this initiative is through the state's 10-year, \$6 billion Clean Energy Fund and the Regional Greenhouse Gas Initiative (RGGI).

Applications will be accepted through August 20, 2024 by 3:00 p.m. EST. Additional details on the evaluation criteria, including requirements to describe how proposed activities support diversity, equity, and inclusion, can be found within the solicitation.

An informational webinar will be held on July 23, 2024 from 1:00 p.m. to 3:00 p.m. EST to provide more details on the challenge, proposal and project requirements, and the application process.

"When faced with any challenge, New Yorkers roll up their sleeves and look for a path forward including finding new ways to beat the excessive heat that has become the norm in our climate crisis battle," governor Hochul said. "These investments are part of a larger commitment to ensuring resilient and healthier communities for those most vulnerable to rising temperatures, while creating economic opportunities and establishing New York as an innovation hub for climate solutions."

Round one awards

The seven projects selected through the Challenge, administered by the New York State Energy Research and Development Authority (NYSERDA), will contribute to emissions reductions and more resilient living environments. Proposals were solicited for innovative solutions to increase carbon sequestration, reduce waste methane emissions, and advance building shell retrofits and new construction approaches that are key to achieving New York's climate goals. In addition, NYSERDA encouraged proposals that could benefit underserved communities and environmental justice areas by optimizing land use, increasing resilience and renewable energy deployment, reducing air and

water pollution, providing cost savings for energy services, and stimulating job creation in climate smart industries.

Round one awardees include:

Assembly OSM - \$2.3 million, in collaboration with the Advanced Structures and Composites Center at the University of Maine and SHoP Architects, to develop and demonstrate two novel bio-based and low-embodied carbon construction materials integrated with offsite pre-fabrication for streamlined building in dense urban environments like New York City.

Hempitecture - \$1.1 million to develop and manufacture a innovative bio-based insulation product using regionally grown industrial hemp fibers. The project will measure the performance, greenhouse gas emissions, and costs associated with the loose-fill low carbon insulation. Product demonstration and manufacturing assessment will be in the Grow-NY Region (Finger Lakes, Central New York, and Southern Tier).

Phytostone - \$1.5 million to develop and commercialize interior architectural tiles for walls and ceilings that sequester carbon from local agricultural residues while increasing the insulative value. This funding enabled Phytostone to locate to Buffalo, New York with the goal of stimulating locally-grown bio-commodities and New York State based manufacturing.

Re-Nuble - \$516,000 to apply a circular business model to reduce waste-related methane by reusing certified hemp byproducts and other plant-sourced fibers for the production of a compostable, grow media line and supporting a secure supply chain to downstream customers (soilless growers) in New York State; project locations include Buffalo, Rochester, Geneva, and New York City.

State University of New York College of Environmental Science and Forestry (SUNY-ESF) - \$546,000 to develop the Tool for Assessing Carbon-Storing Materials (TACSMA) as a consistent, transparent, and open-sourced framework to improve life cycle analysis of New York State harvested wood products. Applications of this tool include improved Environmental Product Declarations (EPDs) for building products and informing procurement and policy around building products in New York State.

SunThru - \$1.7 million to scale up their rapid aerogel manufacturing method and SeeThru™ aerogel materials that provide triple pane window performance in the existing double pane window infrastructure. Product demonstration will include installation at Union College in Schenectady. According to SunThru's estimates their product is expected to reduce a single-family-home's energy needs by 13% with lower embodied carbon compared with triple pane windows.

Syracuse University - \$846,000 to develop and demonstrate MycoCore, a product to address lack of low-carbon insulated façade systems for deep energy retrofits through a unique panelized solution manufactured with engineered bio-composites using regional agri-waste, a cradle-to-cradle life

cycle, and a scan-to-manufacture workflow that will reduce design and construction costs, build up New York State manufacturing, and localize product supply chains.

New York State Energy Research and Development Authority President and CEO Doreen M. Harris said, “Each year New York faces the challenges and risks associated with more frequent extreme heat events, which this new round of funding is designed to address. We are excited to follow the progress of awarded projects and to see the new solutions brought forward with potential for lowering emissions that contribute to the ever-changing climate and reducing demands on the grid during times of excessive heat.”

Round two - \$13 million now available

Through Round 2, NYSERDA is seeking proposals from private companies, research institutions, and other organizations for two challenge areas designed to address heat islands and building emissions in underserved communities:

Innovations in Green Cooling for Extreme Heat - \$5.5 million is available for research, development, and demonstration of tools, technologies, and strategies to increase adoption and benefits of nature-based approaches to passive cooling, prioritizing disadvantaged, heat vulnerable communities to catalyze a greater scale and effectiveness for green infrastructure across New York State.

Innovations in Carbon Negative Buildings - \$7.5 million is available for demonstration, introduction, and scale up of carbon negative products in New York State that support building energy efficiency. Projects will evaluate market growth potential, feasibility for local manufacturing with local raw materials, and other benefits to local communities.

New York State Department of Environmental Conservation interim commissioner Sean Mahar said, “The \$8.5 million announced by Governor Hochul today will help organizations, research institutions, and private companies across New York State advance efforts to reduce climate-altering pollution and help protect New Yorkers from extreme heat wrought by our changing climate. Through the Natural Carbon Solutions Innovation Challenge, New York State is investing to decarbonize our communities and our economy, helping to ensure a cleaner and greener future.”

New York State Office of general services commissioner Jeanette Moy said, “The funding announced today by Governor Hochul will support projects aimed at advancing novel products and strategies to reduce the carbon footprint of the built environment. OGS is proud to be part of the growing collaboration of public and private sector institutions investing in the research and development of technologies that will result in a cleaner and healthier New York State for all.”

This initiative is part of a comprehensive strategy to increase the state’s resiliency to climate change which includes Governor Hochul’s recent announcement of a nearly \$300 million investment in

climate resiliency while attending the 'From Climate Crisis to Climate Resilience' Summit at the Vatican. In addition, the Department of Environmental Conservation (DEC) and NYSERDA are leading the development of an Extreme Heat Action Plan that will focus on addressing extreme heat impacts in disadvantaged communities, areas of employment, and recreational zones across the State. NYSERDA also released New York's priority investments in research, development, and commercialization to support innovators and companies accelerating the low emissions and carbon sequestering technologies needed to meet the State's goal for economy-wide carbon neutrality. NYSERDA's Innovation program is deploying \$800 million over 10 years as direct investments via grants and wrap around commercialization support. More than \$680 million in private investments and \$200 million in project finance capital have been created, and more than 450 innovative clean energy products have been commercialized as a result of NYSERDA's technology and business development investments, including LED lighting systems, home appliances, longer-lasting batteries, and more efficient heating-and-cooling systems.

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