



New Jersey Economic Development Authority

REQUEST FOR INFORMATION (“RFI”)

2023-RFI-180

for

Commercial Building Decarbonization

1. INTENT/SUMMARY OF SCOPE

The New Jersey Economic Development Authority (“Authority,” “NJEDA,” or “EDA”), an independent authority of the State of New Jersey, is seeking information and ideas from qualified entities (“Respondents”) regarding potential programs and funding allocations from the EDA to support commercial building decarbonization projects in the State. Specifically, the EDA would be focusing on potential programs for commercial buildings, but these may also include institutional, industrial, and larger multifamily buildings.

Building decarbonization refers to efforts to reduce greenhouse gas emissions from the building sector. This includes, but is not limited to, reducing operational emissions via fuel switching; beneficial electrification; energy efficiency improvements; on-site renewable energy generation and storage; replacement, repairs, or installation of leak detection systems for highly warming refrigerants; and implementation of demand responsive building systems. In addition, embodied carbon can be considered, which includes also evaluating the lifecycle emission impacts of the materials that make up the physical construction of the building. Reducing embodied carbon for a building includes evaluating and reducing emissions resulting from a building material’s extraction, manufacturing, transport, construction, maintenance, and disposal.

The Authority is interested in receiving information (including but not limited to comments, questions, recommendations, white papers, tools, case studies, information, ideas, references, and general responses, e.g., willingness to participate in a focus group) that will help it to shape new programs and initiatives to accelerate building decarbonization within the commercial building sector within New Jersey. More specifically, this RFI aims to help the Authority better understand:

1. The key opportunities and barriers (financial, policy, regulatory, technological, logistical) around decarbonization of commercial buildings in New Jersey.
2. Specific partnerships, funding, programs, and/or other resources needed to enable building decarbonization projects to occur.

2. BACKGROUND

The Authority serves as the State’s principal agency for driving economic growth. The Authority is committed to making New Jersey a national model for inclusive and sustainable economic development by focusing on strategies that help build strong and dynamic communities, create good jobs for New Jersey residents, and provide pathways to a stronger and fairer economy. Through partnerships with a diverse range of stakeholders, the Authority creates and implements initiatives to enhance the economic vitality and quality of life in the State and strengthen New Jersey’s long-term economic competitiveness.

Under the leadership of Governor Murphy, New Jersey has taken bold action to reduce climate pollutants and accelerate the transition to clean energy, while fostering growth of our clean energy economy. The State has set several key energy and climate targets, including transitioning to 100% clean electricity by 2035 (Murphy E.O. 315). The “Global Warming Response Act”, P.L. 2007, c.112, (“GWRA”) commits New Jersey to reducing its greenhouse gas emissions by 80% below 2006 levels by 2050, and as updated within Murphy E.O. 274, to 50% below 2006 levels by 2030.

Governor Murphy has furthered the push for building decarbonization in the State with the goal that, by December 31, 2030, 400,000 additional dwelling units and 20,000 additional commercial spaces and/or public facilities statewide will utilize electric systems for space heating/cooling and water heating (Murphy E.O. 316).

Buildings currently are the second highest source of overall greenhouse gas emissions (26% of total emissions) in the State. Commercial buildings alone account for 10% of the total greenhouse gas emissions in the State (NJDEP Greenhouse Gas Inventory, Dec. 2022). Most building-generated direct greenhouse gas emissions result from space heating via energy derived from fossil fuel combustion. A smaller portion is derived from similar energy used for water heating and cooking. Greenhouse gas emissions from electric consumption within buildings are already accounted for via overall electric generation sources (21% of the State’s total emissions).

Therefore, reducing greenhouse gas emissions from the building sector is a critical strategy for reducing overall statewide emissions. This work includes retrofitting and upgrading existing buildings in the State while also constructing new buildings to highly efficient and net zero carbon/energy standards. As outlined in the State’s 2019 Energy Master Plan, successfully acting to combat the threat of climate change includes expanding the clean energy innovation economy to “support the growth of in-state clean energy industries through workforce training, clean energy finance solutions, and investing in innovative research and development programs.”

In accordance with a statewide effort to address environmental justice (Murphy E.O. 23), the Authority is committed to prioritizing building decarbonization and clean energy investments in the State’s overburdened communities—those that have been subject to a disproportionately high number of environmental and public health stressors due to a legacy of historically siting sources of pollution in low-income communities and communities of color.

3. ELIGIBILITY CRITERIA

The RFI is seeking responses from all interested stakeholders. Specifically, this RFI welcomes input from entities, organizations, and individuals including:

- Commercial building owners and property developers of all development models and sizes, including those with single buildings or larger portfolios
- Financial institutions involved in real estate transactions and construction financing
- Building management, maintenance, and operations personnel
- Building construction businesses and workers, including but not limited to industry associations, chambers of commerce, and unions
- Other businesses and associated trade groups (restaurants, manufacturers, retailers, grocers, etc.)
- Building design professionals (engineers, architects, planners, modelers, etc.), especially those with experience in green buildings, energy management, and building decarbonization approaches
- Subject matter experts and entities with expertise on green building technologies and best practices, including research institutions
- Manufacturers and installers for electric heating and cooling systems (including heat pumps, VRF systems) and other electric appliances
- Energy efficiency, building envelope, and related contractors
- Utility providers and operators
- Environmental and other public policy-focused organizations
- Organizations representing Environmental Justice communities (together with individual representatives of these communities)
- Jurisdictional and regulatory representatives (from NJ, all other states and territories, and international sources)

Qualified entities do not need to be located within the State of New Jersey to provide a response.

4. RFI RESPONSE QUESTIONS

In submitting responses to this RFI, respondents are encouraged to answer any questions they consider relevant and to the best of their ability. Respondents do not need to answer all questions for their response to be considered. Answers are understood to be preliminary and non-binding. Respondents are free to go beyond the scope of the questions and/or structure responses as necessary to increase clarity and efficiency of responses. Respondents should also feel free to submit additional or alternate information as deemed necessary and appropriate.

The NJEDA is considering establishing programs to support building decarbonization projects in New Jersey for the commercial, industrial, and institutional sectors. Potential programs are intended to provide financial support for building decarbonization projects for retrofits and/or new

construction. Projects may include, but are not limited to, electrifying building systems/appliances, conducting energy efficiency improvements, and related work that reduces greenhouse gas emissions from the State's buildings sector. Financial support may be in the form of low interest/forgivable loans, grants, and/or other financing mechanisms. In particular, the NJEDA is looking to understand what kind of additional financial support it can provide to complement other existing building incentive and financing programs offered from its public and private partners.

The questions within this RFI are intended to garner feedback on potential programs and priorities, as well as solicit general information from relevant stakeholders.

Background

1. Please provide information on you/your entity's background (name, location, organization/business type and size), and your involvement or interest in building decarbonization. How do you define building decarbonization?

Building Decarbonization Projects

2. Given New Jersey's clean energy goals and commitment to building decarbonization, what specific actions would you recommend the NJEDA take to accelerate building decarbonization in the State?
3. What are the major financial barriers (e.g., construction/installation costs, operational costs, access to capital, enabling work required, investment payback period, etc.) and non-financial barriers (e.g., regulatory barriers, lack of familiarity with new building system technologies, operational and reliability issues, procurement timelines, space constraints, etc.) to the pursuance of building decarbonization projects in New Jersey?
 - a. How can these barriers be addressed and overcome?
4. Where are there gaps in existing incentive programs (considering all incentives at the local, utility, state, and federal level) that are meant to encourage adoption of energy efficiency improvements, implementation of on-site renewable energy generation, and similar projects related to building decarbonization goals?
 - a. Are there project costs not adequately covered by incentives that prohibit participation in building decarbonization?
 - b. Is the timeline for awarding incentives within the overall project schedule sufficient to encourage participation?
5. For what kind of projects [size (capital cost or square footage), building type (style or material), occupant use] is additional financial support for building decarbonization most needed?
 - a. During what phase (design, procurement, construction, commissioning, etc.) of a typical construction project (renovation or new construction) would this support be most valuable?
6. Does the recognition from securing industry-recognized building certifications (i.e.,

LEED, ILFI, Passive House, etc.) provide any/sufficient incentive for pursuing building decarbonization projects?

- a. Are these certifications appropriate metrics to use for properly evaluating a building's emissions/energy performance, or should other approaches be used?
 - b. Are there barriers (i.e., administrative time, application fees) to securing these building certifications that impact decisions on whether to pursue net-zero energy/carbon building design on a given project?
7. Are there any specific or notable barriers to building decarbonization projects that are unique to overburdened communities?
- a. How can these barriers be overcome or eliminated?
 - b. In what ways can residents of overburdened and environmental justice communities be supported to engage in building decarbonization projects both in their own communities and beyond?
 - c. How could a program best support the inclusion of small and diverse businesses in the building decarbonization economy?

Building Decarbonization Strategies and Technologies

8. Which technologies that support building decarbonization are most viable for adoption in New Jersey in the immediate term? Which technologies are not (or not yet) viable for adoption? Please explain your reasoning and provide any supporting references.
9. Please describe the factors that are considered when deciding when to replace or upgrade building systems and determining what technologies should be utilized if replacement occurs. This includes MEP systems, appliances, and building envelope components.
10. Do building owners and/or business owners have sufficient sources of information to make informed decisions on which technologies or equipment to adopt in their buildings?
- a. Are building operations and maintenance personnel adequately trained and comfortable working with new technologies?
 - b. If not, what possible steps could be taken to help support education and information sharing to support building decarbonization adoption?
11. To what extent does consideration of embodied carbon (i.e., lifecycle emissions impact of building materials and construction/deconstruction methods) factor into project decisions about building design and construction?
- a. In what ways could financial support accelerate the consideration of embodied carbon on a project level or larger industry scale?
12. What type or level of additional incentives or financial support would be necessary to encourage adoption of building technologies and construction methods that surpass existing minimum building code requirements for energy performance?

5. QUESTIONS AND ANSWERS (from Respondents to NJEDA)

All questions concerning this RFI must be submitted in writing no later than 5:00 PM ET, on Monday, June 19, 2023, via e-mail to: **buildingdecarbRFI@njeda.gov**.

The subject line of the e-mail should state: **Questions-2023-RFI-180**.

Answers to questions submitted will be publicly posted on the Authority's website on or about Monday, June 26, 2023, at: <https://www.njeda.gov/bidding/#OET> as Addenda.

IT IS THE RESPONDENT'S RESPONSIBILITY TO CHECK THIS URL REGULARLY FOR UPDATES.

6. RESPONSE DETAILS (Info Provided to Respondents Regarding Document Submission)

All RFI responses must be submitted in writing no later than **5:00 PM ET on Monday, July 24, 2023**, via e-mail to: **buildingdecarbRFI@njeda.gov**.

The subject line of the e-mail should state: **RFI Response-2023-RFI-180**.

7. FOLLOW-UP QUESTIONS (from NJEDA) / ADDITIONAL INFORMATION

Respondents may be invited to provide additional information to allow the Authority to better understand information provided.

8. PROPRIETARY AND/OR CONFIDENTIAL INFORMATION

The Authority reserves the right to copy any information provided by the Respondents. The Authority reserves the right to use ideas that are provided by Respondents, applicants, stakeholders, or vendors. By submitting a Response, the submitter represents that such copying or use of information will not violate any copyrights, licenses, or other agreements with respect to information submitted or product solutions demonstrated, if applicable. Responses must clearly be marked for any information the Respondent deems Proprietary and/or Confidential.

The Authority further reserves the right to share information with the NJDEP, NJBPU, and the Governor's Office on Climate Action and the Green Economy.

9. DISCLAIMER / NO OBLIGATION

The Authority is under no obligation to contact Respondents to this RFI. If necessary, it may contact respondents through telephone calls, written or electronic communications, presentation

requests and/or interviews to seek clarification on submissions. Please note that, Respondents shall not be under any obligation to respond to any such request.

This RFI is completely voluntary and will not affect scoring or consideration of any applications that may in the future be submitted to the Authority under programs or projects intended to strengthen New Jersey's clean energy economy.

This RFI is issued solely as a means of gathering information. Interested parties responding to this RFI do so at their own expense. There will be no monetary compensation from the Authority for the time and effort spent in preparing the response to this RFI. All expenses incurred are the sole responsibility of the Respondent.

This RFI is not a request for qualification/proposal. It may or may not result in further action. Should the Authority to move forward and issue an RFQ/P or announce a program/product related to this RFI, Respondents need not have submitted a response to this RFI in order to be eligible for the program or to respond to the RFP. Should an RFQ/P be issued, responding to this RFI will not affect scoring or consideration for that process.

10. NEW JERSEY OPEN PUBLIC RECORDS ACT

Respondents should be aware that responses to this RFI are subject to the "New Jersey Open Public Records Act" (N.J.S.A. 47:1A-1 et seq.), as amended and including all applicable regulations and policies and applicable case law, including the New Jersey Right-to-Know law. All information submitted in response to the RFI is considered public information, notwithstanding any disclaimers to the contrary, except as may be exempted from public disclosure by OPRA and the common law.

Any proprietary and/or confidential information submitted in response to this RFI will be redacted by the Authority. A person or entity submitting a response to this RFI may designate specific information as not subject to disclosure pursuant to the exceptions to OPRA found at N.J.S.A. 47:1A-1.1, when such person or entity has a good faith legal and/or factual basis for such assertion (i.e. information that may be included in another ongoing public procurement or solicitation). The Authority reserves the right to make the determination as to what is proprietary or confidential and will advise the person or entity accordingly. The Authority will not honor any attempt to designate the entirety of a submission as proprietary, confidential and/or to claim copyright protection for the entire proposal. In the event of any challenge to the Respondent's assertion of confidentiality with which the Authority does not concur, the Respondent shall be solely responsible for defending its designation.