October 23, 2025

Responses to questions received from potential applicants regarding the FRIP Solicitation for third-party subcontractor services for a Risk Assessment of Residential Monobloc Air-to-Water Heat Pumps (ATWHPs) Using A3 Refrigerants

Q1. How is match or in-kind funding being calculated? For example, if the project team requests $1,200,000, does the match or in-kind funding need to be at least $300,000?

A1. This example is correct. In respondents' proposal, they may request up to $1.5 million of FRIP funding, and their proposed budget must include at least 25 percent additional match or in-kind funding based on the requested FRIP funding. This means if the respondent requests $1.2 million, the respondent would need to show where they are either (1) providing at least $300,000 in additional funds, or (2) providing labor hours, equipment, or other resources worth at least that amount in lieu of receiving funding for these items.

Q2. Is the solicitation seeking both indoor and outdoor ATWHP monobloc conditions for CFD modeling and leakage testing?

- **Footnote 1 of the solicitation states "monobloc air-to-water heat pump (ATWHP) is a relatively new type of indirect HVAC system whereby the refrigerant is fully contained in a single piece of equipment located outside the building." However, subtask 3.2 asks for "detailed floor plans, typical equipment layouts, and sensor placements for effective monitoring."**
- **It is a bit confusing as why detailed floor plans would be required to validate a CFD model based on outdoor installations.**
- **If indoor AWHP configurations are required for modeling and testing, would it include Machinery Rooms as defined in the International Mechanical Code?**

A2. This solicitation is only seeking a risk assessment for outdoor installations of monobloc ATWHPs; indoor configurations are not included. Per subtask 3.1 on page 6 of the solicitation, the CFD modeling shall be used to model leak dispersion, flammable concentrations of refrigerant, and identify any potential combustion events for monobloc ATWHP installations. Per subtask 3.2 on page 7, the

subcontractor must prepare an experimental facility to validate the CFD modeling in subtask 3.1; this will include constructing a residential structure to mimic real-world conditions. The detailed floor plans identified in subtask 3.2 are for any structure(s) that are built for testing the equipment, and the structure(s) must replicate real-world conditions and consider realistic building configurations, to validate the CFD modeling from subtask 3.1.