

IRP-1 Grand Challenge Research – Accelerating Reactor Deployment Q&A

Q. How do you suggest we find Universities interested in collaborating on the Grand Challenge?

A. Three suggestions:

1. View the Nuclear Science and Engineering Education Sourcebook 2022 (https://neup.inl.gov/SiteAssets/FY2022_Documents/Nuclear%20Science%20%26%20Engineering%20Education%20Sourcebook%202022.pdf). This is a resource that is developed with the American Nuclear Society and DOE to catalog the different university faculty members involved in the nuclear engineering and nuclear energy space (contact information and descriptions of areas of expertise).
2. Depending on what your interest is or what kind of research area that you would like to pursue for the grand challenge, all previously funded NEUP projects and associated abstracts can be found on NEUP.gov.
3. Attend American Nuclear Society meetings (general meetings or the topical meetings in a particular area that you may be interested in).

We do not do any type of direct matching or pairing of university research applicants for these funding opportunities.

Q. Do you expect proposals to be specific to a certain reactor design, or does the development of technology inclusive solutions have the same level of priority as design specific solutions?

A. We will rely on applicants to propose what makes the most sense. If you would like to suggest something that is reactor specific, that is fine. If you want to suggest something that would apply to multiple reactor types, that would be beneficial as well. All would receive the same priority. All depends on what was proposed and how it lines up with all other proposals received.

Q. Would you mention your office again and talk a little bit about how you're interested in transportation?

A. Microreactor Program. Microreactors are touted to have the possible characteristic of being transportable via regular standard capabilities on rails, on ships, by plane, etc. We are looking into different ways to ensure microreactors can maintain that small footprint. For example, yttrium hydride that would reduce the volume necessary to moderate a reactor, we're looking into different components that are smaller. We've looked into components such as like heat pipes, which would allow for microreactors to have no moving parts for thermal distribution. We're also looking into the regulatory gaps that are necessary to allow factory fabrication and transportation of microreactors. Those are all technical and regulatory gaps that we have been pursuing to shorten the timeline for allowing microreactor to be demonstrated.

Q. I'm wondering how you evaluate having industry partners in a proposal, for example, having industry partners, like advanced reactor vendors, versus not having them, how would that impact the evaluation of the proposal?

A. Industry partners are not a requirement. But, given this is an IRP, we do like to see a diverse set of partnerships and if you are looking at those specific reactor type, it would be very beneficial to have industry as part of the team. So, again, although it is not a requirement, it definitely is beneficial and could potentially strengthen your proposal. From an evaluation criteria standpoint (criterion 3 in the funding opportunity that discusses team capabilities, partnerships, that is the specific area from a technical evaluation standpoint that assesses the needed expertise in your team and evaluates the partnering and those other aspects. The only caveat is that the budget to an outside partner (other than a university) is limited to 20% of the total budget.