

Public-Private Hard Science/Energy Technology Innovation

Classification Code:

A -- Research & Development

NAICS Code:

541 -- Professional, Scientific, and Technical Services/541712 -- Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)

Background

Chain Reaction Innovations was created at Argonne National Laboratory to address the critical national need to accelerate development and deployment of physical-science based technologies (e.g., materials and manufacturing) capable of transforming the nation's energy systems.

Chain Reaction Innovations is an energy materials and manufacturing innovation program that serves as a platform for entrepreneurial researchers whose early-stage innovations are too challenging to pursue in a venture capital-financed startup. Its goal is to provide a place for top innovators to focus on pre-commercial technology development objectives within a discrete time period, enabling the translation of high-impact materials and manufacturing technologies from concept to marketplace. Technology innovators are selected into the program through an annual competition. The Chain Reaction Innovations program intends to provide for selected technology innovators scientific/technical mentorship and access to unique R&D assets and scientific expertise at Argonne, a DOE national laboratory, to incubate and translate the innovations from proof-of-concept to proof-of-product.

Chain Reaction Innovations will help selected technology innovators by helping them pair with experienced mentor entities in a joint effort to mature early stage innovations with the support of federal funding. As part of Chain Reaction Innovations, the Department of Energy will directly fund Argonne program staff to work with selected technology innovators. Additionally, the Department of Energy will provide a fellowship to each selected technology innovator.

This solicitation seeks responses from qualified entities who desire to partner with Chain Reaction Innovations by providing business mentoring to selected technology innovators. Although selected respondents are not guaranteed to work with a selected technology innovator, selected respondents may be identified as preferred mentors in the Chain Reaction Innovations program.

Opportunity

Argonne National Laboratory believes that the impact of Chain Reaction Innovations is maximized via a public-private partnership. The public-private partnership model provides an opportunity for a private sector partner to play an active role in transforming

the nation's energy systems. Argonne is seeking one or more business mentor partners to expand the scope and impact of Chain Reaction Innovations. In particular, Argonne seeks one or more entities (e.g. non-profits, private sector partners, or university incubators) that can:

- Provide key business mentorship and venture development services in areas that will enhance the impact of the program and success of selected technology innovators, e.g. assistance with company formation, business development assistance and guidance, community and network development, investor advising, customer discovery, techno-economic analysis, etc.;
- Support administration of compliance requirements for selected technology innovators who lack infrastructure and require business support at the earliest stages;
- Work closely with technology innovators in their efforts to attract private sector funding and engagement.

Nature of the Partnership

No Department of Energy or Argonne National Laboratory funds are being offered via this opportunity.

Selected business mentor partners will benefit from the ability to visibly impact the region by supporting domestic technology innovators in the physical sciences/energy domain. Selected technology innovators will benefit from the experience of Argonne National Lab, as well as potential federal funding to develop their technology.

Argonne may engage with the mentor partner in any or all of the following ways:

- coordinating service offerings to the program and mentorship to Chain Reaction Innovations technology innovators; and
- providing the mentor partner appropriate access to Argonne National Laboratory resources and facilities as required for the partnership.

Respondents may propose a preferred partnership structure. Argonne may consider one or more mechanisms through which to formalize the partnership. Examples include listing on a preferred service provider list and a Memorandum of Understanding.

Any work in connection with Chain Reaction Innovations must comply with Argonne's Prime Contract, as well as applicable policies – including those pertaining to the avoidance of apparent or actual conflicts of interest. Entities affiliated with Argonne National Lab, and its operator UChicago Argonne LLC are eligible to apply. However, any selected entity may be subject to an organizational conflict of interest (OCI) management plan. If a selected entity raises apparent or actual conflicts of interests, for example entities associated with Argonne National Lab or its operator UChicago Argonne LLC, there will be an organizational conflict of interest (OCI) management plan developed and approved by the DOE for their participation. Possible mitigation factors include:

- Prohibiting the selected entity from taking or having any financial interest in a startup company formed by an innovator it is mentoring;
- Making clear that no patent or data rights of owned by a mentored technology innovator or their company are to flow to selected mentor entities; and
- Allowing the selected mentor entities to only charge the technology innovator company up to the same rates it charges other innovators for the same services.

If the OCI issues cannot be effectively mitigated to the satisfaction of the DOE, the selected entity will not be able to participate as a business mentor in the Chain Reaction Innovations program.

Requirements for Respondents

1. Must be a domestic, tax-exempt 501(c)(3) non-profit organization;
2. Must demonstrate significant experience in supporting physical-science or energy-based technology innovators using objective measures, such as amount of funding raised by mentored technology innovators, growth in revenue, growth in sales, etc.;
3. Must include team member(s) with demonstrated ability and/or successful experience in working with large institutional research organizations;
4. May not charge the technology innovators for mentoring services as part of the Chain Reaction Innovations program. Any business relationships with technology innovators outside the scope of the program should be conducted independently.

Technology innovators participating in the Chain Reaction Innovations program will be encouraged to work with selected business mentorship organizations to provide the technology innovator with commercialization and business support service to help expedite commercialization of their technologies. Subject to the limitations below, the relationship and/or agreement between an innovator and a business mentorship organization shall be independently negotiated between those entities. Chain Reaction Innovations technology innovators will not be required to use any particular mentorship organization to be a part of the program, and no mentorship organizations will have an exclusive relationship with Argonne or with individual innovators.

While selected entities that are affiliates of the Laboratory or the Laboratory Contractor will be prohibited from taking or having an equity stake in companies formed by innovators under their mentorship, non-affiliated entities are not subject to the same categorical restriction. Selected mentors and technology innovators are to independently negotiate their arrangements, and those arrangements may include an exchange of equity, subject to any applicable statutes, regulations, organizational conflict of interest (OCI) management plans, lab policies or other restrictions. However, no participating mentor (regardless of affiliation with the Lab) can use its position as a mentor in the Chain Reaction Innovations program to require a technology innovator to provide an equity stake to the mentor.

Additional Evaluation Criteria

Applicants will be evaluated based on their commitment to and experience with mentoring and fostering successful science and technology-based innovators through entrepreneurial mentorship programming. Applicants will also be evaluated by the following criteria:

- Demonstrated experience in the mentoring and fostering success of science and technology-based innovators;
- Level of administrative support provided to supporting technology innovator programs/initiatives;
- Experience in the selection and evaluation of business proposals by startups with physical hardware technologies;
- Experience in the scientific evaluation of the efficacy and potential impact of energy technologies;
- Capabilities to provide business advice to science and technology-based innovators;
- Demonstrated ability to maintain positive working relationships with large R&D institutions;
- A proactive approach to managing individual and institutional conflicts of interest; and
- Must be structured to provide close interactions with technology innovators at Argonne National Laboratory.

All respondents will be reviewed by Argonne National Laboratory, and must be selected by a Federal Official from DOE's Office of Energy Efficiency and Renewable Energy (EERE).

How to Respond

Submit the following documents to Andreas Roelofs of Argonne National Laboratory:

- Executive summary (2 pages maximum)
- Description of the proposed partnership structure addressing roles and responsibilities of both the public and private side of the partnership including:
 - the structure of the public-private partnership with Argonne National Laboratory addressing the requirements described in this notice,
 - services to be made available to Chain Reaction Innovations technology innovators,
 - a description of how the mentor partner's resources and services complement innovation services at Argonne National Laboratory,
 - Statement of Qualifications, including resumes of proposed team members
 - Demonstration of sufficient non-DOE funds available on an on-going basis to provide the support services and the proposed partnership or a plan for obtaining such funds
 - Timeline for implementation

Please email aroelofs@anl.gov with any questions about this partnership opportunity.

Primary Point of Contact:

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Place of Performance:

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