

# The Energy RPA (e-RPA)

*A Research Priority Area of the University of Kentucky*

## SEED GRANT SOLICITATION FY2024

The University of Kentucky Energy Research Priority Area (e-RPA) is soliciting proposals for seed grants for the support of research projects that will lead to externally supported research programs in the broad area of energy.

The e-RPA's mission is to enhance the energy research strengths of the University through further development of a diverse cohort of faculty and staff working within the energy space. e-RPA will extend the University's current strengths through targeted programs aimed at increasing research activity, collaboration and competitiveness in the broad area of energy research.

In support of these goals, the e-RPA Seed Grant program will support proposals leading to:

- Increased grant awards
- Increased collaborative peer reviewed publications
- Increased proposal submission
- Expansion of UK research areas
- Increased intellectual property disclosures and issued patents

### **Submission**

Proposals must be received before 5pm on January 12<sup>th</sup>, 2024. Proposals should be submitted via the VPR [Internal Grants Portal](#).

### **Eligibility**

UK researchers who are eligible to serve as a PI or co-PI on external grants are eligible to submit. Junior faculty and staff are particularly encouraged to apply. Applicants must be a member of the RPA at the time of submission to be eligible. Anyone who would like to become a member can join the e-RPA here: [Join the e-RPA](#).

### **Funding**

Total funding of \$250,000 will be available to support an estimated 5-10 proposals. Funding requests of \$25,000-\$50,000 are expected for a typical proposal. Larger amounts will only be considered if significant cost share is being provided. Smaller projects are welcome but should be of significant enough activity to lead to a full external grant proposal at the end of the award period.

### **Topical Areas**

Proposals in all areas of energy research may be supported, including the related areas of materials science, environmental impacts or health effects of energy production and use, and

the food-energy-water intersection. However, as the goal of the program is to develop new areas of strength or 'round out' existing areas, proposals intended to support ongoing work will not be funded.

Possible areas of supported research include:

- Industrial decarbonization;
- Future of plastics;
- Development and characterization of advanced materials for energy applications;
- Sustainable hydrocarbons;
- Energy Storage: batteries, flow batteries, supercapacitors;
- Energy Harvesting: waste heat collection, photovoltaics, piezoelectrics;
- Subsurface fluid flow and modeling (monitoring of injected fluids);
- 3D subsurface/reservoir geostatistical or geochemical modeling;
- Completion of the path from theory to practice: the ability to fabricate and characterize devices for energy harvesting and storage;
- Ethical and environmental justice issues related to energy production and transitions, especially in historically marginalized and/or economically disadvantaged communities;
- Community building, workforce development, and retraining for the energy transition;
- Information and misinformation dynamics in energy and climate conversations;
- Development of approaches to foster transdisciplinary collaborations and research around the energy nexus.

### **Format**

Proposals should follow typical NSF/DoE guidelines. Proposal should include:

**I.** Cover Sheet – list PI, Co-I's, Department/Centers/Colleges involved.

**II.** Abstract (250 words).

**III.** Plan of Project (4 pages exclusive of citations)

A. Overall goals and objectives or specific aims.

B. Relevant background.

C. Significance of project.

D. Approach/Methods and procedures.

E. Justification – Identify the specific external funding opportunities for which pilot data will be used. Identify new collaborations formed by the project.

F. Citations.

**IV.** Budget

A budget and justification must be included with sufficient detail for reviewers to judge adequacy. The budget can include typically allowable expenses, but the program will not support graduate tuition and fees. F&A should not be included in budget. Summer stipends for students, and hourly student research assistant support, is allowed. Equipment over \$10,000 requires detailed justification for how it will benefit the larger energy research community at UK. The budget period should be no longer than 9 months.

Cost share is not required. However, cost share is a review criteria and higher levels of cost share will make a proposal more competitive.

**V. Brief biosketch for PI (2 pages).**

**Deliverables**

One month after the end of the budget period, a one-page report is required, specifically addressing progress toward the goals of the project and listing all publications, presentations, and proposals that have been (at least in part) generated by the funded work.

It is the expectation that within the year following the seed grant award at least one proposal to an external funding agency will be submitted.

**Review**

Proposals will be reviewed using typical NSF/DoE criteria. External reviewers will be used to the extent possible. Final decisions will be approved by the e-RPA Leadership Team.

Questions should be addressed to:

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