2017-2018 Institutes of Energy and the Environment
Seed Grant Program Request for Pre-Proposals

Penn State's *Institutes of Energy and the Environment* (*IEE*) has [five strategic research themes](#) of focus (listed alphabetically): Climate and Ecosystem Change; Future Energy Supply; Smart Energy Systems; Water and Biogeochemical Cycles; and Health and the Environment.

IEE established a Seed Grant Program four years ago to foster basic and applied research focused on these strategic research themes. Over the previous rounds, IEE has awarded over $1.5 million to 70 interdisciplinary projects with investigators from 15 Penn State colleges and campuses. For 2017-2018, approximately $300,000 of funding is available.

Preferred activities for funding under the Seed Grant Program are:
- Development of new interdisciplinary research teams to position them for substantial external funding success;
- Novel research in theme areas, especially high-risk proof of concept projects; and
- Collaboration between junior and senior faculty to promote research development, mentorship.

To increase the impact of the Seed Grant program and align with expanding federal and foundation opportunities, we will give extra consideration to proposals addressing transitions to sustainability associated with any facet of the first four themes (Climate and Ecosystem Change; Future Energy Supply; Smart Energy Systems; Water and Biogeochemical Cycles). Through this focus on transitions to sustainability, we hope to see proposals that examine processes of transformation of coupled human and biophysical systems, including metrics, incentives and behaviors, policies and governance strategies that limit or facilitate innovation and change.

As with last year, a separate multi-Institute request for proposals on the theme of Health and the Environment will be issued later this fall or winter.

Seed Grant Eligibility
All Penn State faculty members (tenured, tenure track, and fixed term) who hold an appointment of half-time or more at any Penn State campus are eligible to submit a seed grant proposal as a Principal Investigator (PI). Researchers, students and staff from Penn State, Pennsylvania state agencies, federal agencies, and private industry may be included as collaborators in seed grant proposals. Please note that while most proposals are expected to include multiple investigators, there can only be one responsible PI for each application. In addition, investigators may only serve as PI on a single proposal. New investigators will be given preference over those who may have previously received an IEE seed grant.

Funding Availability
To encourage establishment of new collaborations and enhancement of networks, larger grants will require innovative partnerships of investigators from multiple colleges and/or campus locations. Funds up to $25,000 are available for multi-college (across University Park) and multi-campus (between campuses) collaborative grants; up to $10,000 for two or more faculty from the same college (University Park) or Commonwealth Campus; and up to $5,000 for a single investigator project.

<u>Funds can be used to support research development and coordination expenses such as</u>:

- Graduate and undergraduate student support

- Instrumentation fees and sample analysis to collect preliminary data

- Equipment, supplies, and participant payments

- Travel associated with conducting/reporting seed grant research (Penn State participants only)

- Hosting a research planning meeting for an interdisciplinary team

- Planning and hosting conferences and symposia

- Funding for data conversion technology and wages to support date conversion

<u>Funding is limited or not allowed for the following</u>:

- Single college/campus funding, even with several departments, is capped at $10,000

- Summer or supplemental salary support for faculty

- Postdoc salary

- Travel support to attend conferences

Submission Instructions

All pre-proposals must be submitted electronically via upload from the link at http://www.iee.psu.edu/seedgrant/2017/apply **no later than 5:00 pm on Wednesday, October 4, 2017**. Each pre-proposal is limited to a 1-page project description and additional pages for an appendix.

The one-page project description must include the following:

- Title of project

- List of PI and collaborators, including college, department and/or campus

- Short description of the project (understandable by an interdisciplinary audience)

- Short description of how this project will leverage seed funding

- Nature of collaboration (new/existing; mentorship opportunities)

- Total funding to be requested, including short description of anticipated expenditures

The appendix will include a list of all collaborators, their colleges and/or departments, and 1-page resumes for the PI and all co-PIs.

Timeline for pre-proposals and proposals (note, all deadlines are Wednesdays)

Sept. 5, 2017, 11:00-12:00	Informational webinar for pre-proposal questions,
Oct. 4, 2017	Pre-proposals due no later than 5:00 pm
Week of Oct. 30, 2017	PIs notified of pre-proposal result; full proposals requested
Dec. 22, 2017	Full proposals due no later than 5:00 pm
January 31, 2018	Seed Grant funding decisions announced

Grant funds will be available by April 1, 2018 and must be expended by June 30, 2019.

Review Criteria
Pre-proposal and Proposal reviews are based upon the following criteria:

1. Intellectual merit of the proposal, including relevance to strategic priorities and contribution to global leadership in a prioritized theme; creativity and innovation; significance of goals and results; soundness of research plan; and likelihood of successful project completion. Please note that these proposals are reviewed by a cross section of researchers with different backgrounds; your ability to communicate your ideas to a broader audience is important for success with interdisciplinary project review panels.

2. A credible and clearly articulated strategy for leveraging this seed grant investment into exceptional scholarship and/or significant external funding. Potential for additional/continued activity beyond the seed grant phase may include plans for continued activity such as applications for external support from federal, state or local government agencies, industry, private foundations, etc.; plans for continued research activities involving in-kind support, teaching activities, on-going scholarly work, etc.; plans for public engagement and outreach; and expanded implementation by external stakeholders. Providing specific examples, including specifics of external funding opportunities, contact with program officers, etc. has been helpful in establishing the credibility of these strategies to prior seed grant reviewers.

3. Realistic potential for developing new and productive collaborations between PIs with special consideration given to mentorship and collaborations between junior and senior faculty. Possibilities for additional activities and projects which draw upon the seed grant partnership should be specified.

4. Appropriateness of the budget request for supporting the proposed research.

5. Extra consideration will also be given to projects that are able to take data and help leverage that into knowledge and on the ground impact. For more on this, see http://www.iee.psu.edu/research.

   Pre-proposals will be reviewed by a set of reviewers, and categorized as "Request Proposal" or "Do Not Request Proposal." Those invited to submit a full proposal will be given additional information.

   Please direct any questions regarding the proposal process to iee@psu.edu.