

Observations on DOE Merit Review Criteria For the DOE EPSCoR Implementation Grants Program

Pre-announcement Information for Calendar Year 2016 Solicitation

The comments in this section reflect lessons learned from previous competitions and from a review of solicitations such as the 2014 Funding Opportunity Announcement DE-FOA-0001087.

1.0 Introduction

On Monday, December 21, 2015, WV EPSCoR announced a pre-proposal competition to determine the research team to be recommended by the West Virginia Science & Technology Council to submit an application in response to any 2016 solicitation for the DOE EPSCoR Implementation Grants Program.

Pre-proposals from WV research teams are due Friday, January 29, 2016 at 5:00 PM Eastern Standard Time to WV EPSCoR Director, Jan Taylor, at

jan.taylor@wvresearch.org.

The purpose of this communication is to provide information to prospective research teams on the kind of information that should be included in their pre-proposals. Please refer to the announcement and other information posted on the WV EPSCoR web site for additional information related to this competition.

2.0 Overview of Pre-Proposal Information Requirements

The December 21, 2015 announcement described five general requirements for research teams to address in the pre-proposal:

- Identify enhanced academic R&D competitiveness for the team and sustained support after the DOE program is concluded
- Formulate a program with a coherent focus on a research area includes workforce development provisions as described in the DOE announcement related to junior faculty, postdoctoral staff, and graduate / undergraduate students
- Construct a strong management plan that will ensure success of the program
- Provide summary budget information that describes the work effort and identifies any cost sharing contributions that may be offered from the respective team members
- Develop a working relationship with a DOE Program Office that would co-fund 10% of the research supported by the DOE EPSCoR program (a requirement of DOE EPSCoR).

Templates are attached to this document that describe how to prepare a cover page for the proposal, how to construct the required budget, and how to prepare a roster of team members.

The remainder of this document offers information for consideration by research teams in preparing the pre-proposal. While you are free to structure your presentation as best fits your style for explaining your proposed research program, it is recommended that you use a format that addresses the seven DOE merit review criteria described in Section 3.0 in order to ensure covering these criteria in your pre-proposal.

3.0 Summary of DOE Merit Review Criteria

The following list of rating criteria is taken from the referenced 2014 FOA, page 28, Merit Review Criteria. The weighting factors for these criteria were not identified by DOE. Additional amplification is provided in the FOA and the notes following this section.

- Scientific and/or technical merit
- Appropriateness of proposed method or approach
- Competency of personnel and adequateness of resources, and
- Reasonableness and appropriateness of budget

The above four criteria are typical rating factors used in evaluating all DOE proposals. These criteria are found in 10 CFR 605.10 (d).

DOE EPSCoR will use additional criteria, also identified on page 28 of the 2014 FOA:

- Synergism among PIs in a program (versus an application that is simply a collection of individual projects) and the programmatic focus of a multi-PI effort:
 - Does the application exhibit a coherent focus on one energy-related research area bringing together multiple researchers?
 - Does the application present an adequate management plan for coordinating multiple investigators working on a common theme including performance milestones and a time table for achieving project goals and deliverables?
- Likelihood of success of the Implementation Grant:
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 - Does the research project fit with WV EPSCoR strategy? (Teams should minimize focus on this criterion for the pre-proposal application. WV EPSCoR will work with the designated research team to satisfy this criterion. WV EPSCoR's goals are broad and we anticipate that the selected program will easily fit within the WV EPSCoR goals.)
 - Plan for hire of competent faculty for the research effort or the inclusion of outstanding faculty currently on staff. You may include the possibility of adding future hires to the research team provided that you have appropriate assurances from your department / college administrators.

- Plan for including on the project team outstanding graduate students or postdoctoral persons currently on staff or to be recruited in future
- Presently existing or to-be-developed infrastructure (uniqueness or quality of infrastructure)
- Ability to have a sustained leadership position/recognition in the chosen discipline after the completion of the program
- Leveraging with local and regional resources. The 2014 solicitation did not require cost share. In the past, cost-sharing investments by the applicants were considered as a “plus” and could be interpreted as leveraging under this criterion. Cost sharing by industry collaborators will also be a plus.
- Plans by the WV EPSCoR leadership to maximize the long-term impact of the award. (WV EPSCoR will assist in meeting this criterion by working with the down-selected team to prepare the proposal for submission to DOE; de-emphasize this criterion in the pre-proposal preparation process).
- DOE reserves the right to include consideration of the performance of previous WV EPSCoR research teams under previous awards. (WV successfully completed two State Implementation Grants in grid research and fuel cell research in the past.)
- DOE reserves the right to include the management value of administrative support by WV EPSCoR as a factor in award decisions. This criterion includes consideration of the amount of time the technical lead and the administrative lead will contribute to the program, in addition to contributions from the institutions of the investigators and the State EPSCoR program.
- DOE reserves the right to give emphasis to projects involving investigators in tenure-track or tenured positions. Under this criterion, DOE will give extra consideration if junior faculty are included in the research team and for the inclusion of graduate students and postdoctoral fellows. This criterion may also mean that they may favor applications from universities over industry applications. Note that industries in the State may also apply for awards according to the 2014 solicitation.
- Relevance to agency (DOE) programmatic needs.

Note to WV Researchers: In describing your proposed research to WV EPSCoR in your pre-proposals, you should focus on the DOE criteria. WV EPSCoR criteria are similar to the DOE criteria. Issues related to compliance with WV EPSCoR goals will be resolved by working with the selected team in the preparation of the DOE proposal.

4.0 Other General Comments Abstracted from DE-FOA-0001087

The following comments are written from the perspective of what should be included in the actual proposal submission to DOE. In preparing your pre-proposal, please use these considerations in formulating your research plan for the WV EPSCoR competition. Given that the pre-proposal is limited to three pages of narrative versus the 25 pages of narrative allowed for the DOE EPSCoR submission, you should focus on conciseness in your narrative to address as many of the DOE considerations as possible within your page limitation.

- Proposals should be in key science and technology areas related to DOE's mission(s) that are also of interest to WV EPSCoR
- Grants are intended to support a group of scientists and engineers including graduate students and postdoctorals working on a common scientific theme
- The proposal needs to describe how completing this research will position the team to get sustainable (i.e., continued) support in their research area after the grant is completed.
- A coordinated effort on the part of the team is needed and should be clearly stated in the proposal. Performance milestones and a timetable for achieving project goals and deliverables are prerequisites for support from DOE. Goals of your research might include, for example, sustainability, education of students, and not just research goals.
- The proposal should be in line with the goals of one of the DOE Offices listed in the Funding Opportunity Announcement. E.G., science, nuclear, fossil, ...
- We need to hook up with a DOE program office that would be interested in our work. Note that national laboratories do not count here – DOE is looking for a DOE program office in this criterion. The national laboratories are run by contractors and do not speak for DOE. An exception is NETL where it is both a national lab and is operated by federal (DOE) personnel, as distinct from the other national labs. Researchers should work to establish their DOE relationships in time for consideration by WV EPSCoR in the down selection process.
 - The targeted DOE program office will need to provide up to 10% cost share for the proposal. (That is, if DOE awards \$2 million per year, then the DOE program office would have to provide the DOE EPSCoR program in the Office of Science a total of \$200 K each year as its 10% cost share of the total money that DOE awards to you). Please be sure to go over this concept with your DOE counterparts to avoid surprises at the end stage of proposal preparation when endorsements would be needed. You are talking real money here that the DOE program officer will have to take from his or her budget and give it to DOE EPSCoR. The Program Officer should be listed on the proposal cover page (see template provided).

- This requirement was in force for the 2014 competition. This requirement will likely be in the 2015 solicitation. Begin now to identify the relevant DOE program office and establish a relationship with someone in that office who is supportive of your proposed work.
- As an additional note, DOE EPSCoR modified the 2014 solicitation to include the ARPA-E program as a valid Program Office. Investigators who have previously submitted proposals to ARPA-E should contact this program office to see if that office would be interested in endorsing your proposal since the effective cost would be only 10% of the effort you originally requested to ARPA-E.
- Although not required, DOE EPSCoR encourages collaborations with one or more of the 10 Office of Science national labs, taking advantage of their user facilities (e.g., Los Alamos National Lab, Argonne National Lab, ... Note that NETL is not a Science National Lab, but collaboration with NETL in using their specialty facilities would meet this evaluation element).
- DOE expects there to be a Technical Principal Investigator (PI) who should be the lead technical director for the research. DOE expects there to be an Administrative Principal Investigator called the Project Director (PD) who will assist in the management of the award and the coordination of the award to meeting the jurisdiction's goals. The PD and PI must provide a letter from their institution's administration confirming that he or she will be making a significant time commitment to the project. Richard Bajura, Director of the National Research Center for Coal and Energy at WVU, has served as the PD for the previous two awards won by WV researchers under this program and will serve as the PD for the present program if awarded. For the pre-proposal, research teams should focus on their commitments to the management plan. Coordination with the PD will be addressed in preparing the formal proposal to DOE EPSCoR.
- Cost sharing is not required, but in practice strong cost sharing is recommended. This cost sharing ideally should be in the form of new resources and not simply student waivers or release time. Please include cost sharing such as release time or student tuition waivers if available. Many of the successful applications submitted to DOE EPSCoR over the years by WV and other states involved considerable substantive cost sharing from the applicants even though minimal cost sharing is legally required. If you have cost sharing promised as part of your pre-proposal, please secure the approval of your administration in certifying that the cost share is agreed to by the institution. The name(s) of the authorized administrators should be listed on the cover page of your pre-proposal.

5.0 Other Relevant Information

Technical advice regarding the preparation of pre-proposals is available from Richard Bajura. (rbajura@wvu.edu or 304-293-6034)

Contact Information for WV EPSCoR personnel knowledgeable about the DOE EPSCoR Program:

Jan R. Taylor, Ph.D.
Director, WV EPSCoR
Voice: 304.558.4128 x 3
E-mail jan.taylor@wvresearch.org

Richard Bajura, Ph.D.
WV DOE EPSCoR Coordinator
Voice: 304.293.6034
E-mail rbajura@wvu.edu

Additional information about the WV EPSCoR down-selection process will be posted on the web site for WV EPSCoR and the National Research Center for Coal and energy. These sites can be accessed by:

www.wvresearch.org

www.nrcce.wvu.edu

List of Attachments

1. Pre-Proposal Submission Summary
2. Sample Cover Page
3. Budget Template
4. Template for Proposed Roster of Team Members (includes template to be completed by research team and sample roster for illustration)

Note: Attachments included in the present document are PDF files and cannot be used for editing. Templates will be available in MS Word or Excel format on the following web sites after January 4, 2016:

www.wvresearch.org

www.nrcce.wvu.edu

Pre-Proposal Submission Summary

Materials submitted to WV EPSCoR for review under the pre-proposal competition should be in a single file in PDF format. Required elements are summarized below in the order in which the elements should appear in the PDF file.

<u>Element</u>	<u>Format</u>	<u>Affirmations</u>
Cover Page – not counted in four page limit of pre-proposal Narrative / Budget information	Template provided	<ul style="list-style-type: none"> • Institutional endorsements on cost sharing and other commitments • Information related to status of DOE Program Office cost sharing
Three Page Narrative	Open format; refer to Observations on Merit Review Criteria for recommendations	
Fourth Page – Budget Information	Template provided	<ul style="list-style-type: none"> • Amount of cost sharing proposed by institutions supporting the pre-proposal application
Roster of Investigators – not counted in four page limit of pre-proposal	Template provided	
Comments on DOE Program Office interest in proposed research	Open format; copies of communications from DOE Program Officer if available	

Submission Deadline

Friday January 29, 2016
5:00 PM Eastern Standard Time

to

Jan.Taylor@wvresearch.org

Pre-Proposal Submission Cover Page
West Virginia EPSCoR DOE Implementation Grants Program
Calendar Year 2016 Solicitation

Proposal Title in 16 Point Font

Principal Investigator Name
Title / Rank / Institution
Email Address
Phone Number

Name of Secondary Contact for Research Team
Title / Rank / Institution
Email Address
Phone Number

Date of Submission

Institutional Endorsement

Name(s) of Authorized Endorser(s)
Title
Name of Institution

(List all endorsers regarding any cost share or other institutional commitments promised, unless one endorser is approved to sign for all institutional commitments; signatures not required on this page)

Relevant DOE Program Office: (list Office name here)
Program Office Point of Contact: (list Staff Member name(s) here)
List Name(s) of Topical Area(s) of Research Relevant to Program Office
List phone number and email for Point(s) of Contact
Commitment Status: (enter Confirmed or Under Discussion or To Be Contacted)

Estimated Costs for Three Year Program - Use Fully Burdened Costs in Each Entry

Do not enter data in yellow filled boxes - calculations done automatically

Principal Investigator:

Enter PI Name Here

	Year 1			Year 2			Year 3			Total Cost	Cost Sharing
	Number	Cost	FTE *	Number	Cost	FTE *	Number	Cost	FTE *		
Faculty Personnel	1	\$ 1	1	1	\$ 1	1	1	\$ 1	1	\$ 3	\$ 1
Postdoctoral / Research Assoc.	1	\$ 1	1	1	\$ 1	1	1	\$ 1	1	\$ 3	\$ 1
Graduate Students	1	\$ 1	1	1	\$ 1	1	1	\$ 1	1	\$ 3	\$ 1
Sub Total	3	\$ 3	3	3	\$ 3	3	3	\$ 3	3	\$ 9	\$ 1
Current Expense Items		\$ 1			\$ 1			\$ 1		\$ 3	\$ 1
Equipment **		\$ 1			\$ 0			\$ 0		\$ 1	\$ 1
Travel ***		\$ 1			\$ 1			\$ 1		\$ 3	\$ 1
Other ****		\$ 1			\$ 1			\$ 1		\$ 3	\$ 1
Total		\$ 7			\$ 6			\$ 6		\$ 19	\$ 8

Legend

* For faculty members, 1 FTE = 12 months of effort. This entry is the sum total for all team members.
 For postdoctoral and research associate personnel, 1 FTE = 12 months of effort. This entry is the sum total for all team members.
 For graduate students, appointment for 20 hours per week = 0.5 FTE on an annual basis. This entry is the sum total for all team members.

** Equipment is defined here as items of lasting duration that cost in excess of \$5,000
 Provide a short justification below

*** Provide short justification for travel costs that exceed nominally 2 conference / technical meetings per year per faculty member plus necessary travel related to project discussions and reviews with sponsors.

**** Provide short justification for substantive "Other" expenses. List student tuition waivers under cost sharing (Other category, Cell O-16)

<u>Justifications</u> (Also summarize cost sharing)	Enter Justification Comments Below. Start each comment in a new row. Number the comments.
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Proposed Roster of Team Members

Proposed Roster of Team Members							
<u>Instructions</u>							
1. List team members in groups: regular faculty members first, research associates and postdoctoral staff second, and students third. Separate groups by empty rows.							
2. In Roles column, identify all roles that apply							
3. Under Other Comments, be brief							
4. Use Wrap Text feature to stay within column boundaries							
5. See Sample tab for illustration							
<u>Name (last, first)</u>	<u>Institution</u>	<u>Department</u>	<u>Title (Faculty Rank, Res. Assoc., Postdoctoral, Student, ...)</u>	<u>Role(s) in Research Team</u> [e.g., Area Leader (identify), Co-PI, Consultant, ...]	<u>Relevant Area(s) of Expertise</u>	<u>Number of Relevant Pubs. in Area</u>	<u>Other Comments</u>
List Technical PI First							
List Alt Contact Second							

Proposed Roster of Team Members

<u>Name (last, first)</u>	<u>Institution</u>	<u>Department</u>	<u>Title (Faculty Rank, Res. Assoc., Postdoctoral, Student,)</u>	<u>Role(s) in Research Team [e.g., Area Leader (identify), Co-PI, Consultant, ...]</u>	<u>Relevant Area(s) of Expertise</u>	<u>Number of Relevant Pubs. in Area</u>	<u>Other Comments</u>
Smith, John	WVU	Physics	Professor	Principal Investigator, Leader of Computational Modeling Team	Computational Modeling for materials	5	I have a laboratory and three technical staff to support the experimental work
Reynolds, Cynthia	WVU	Chemistry	Associate Professor	Deputy Principal Investigator, production of crystals for analysis	Catalysis, doping	4	
Farmer, Jessy	Marshall	Chemistry	Assistant Professor	Member of computational group	Ab initio modeling of materials	2	
Grabill, Roger	WVU	Physics	Assistant Professor	Co-Investigator on Experimental work	High vacuum sintering	4	
Harbert, Alfred	WVU	Physics	Postdoctoral	Support for computational modeling	Vector processing	1	
Lindell, John	Marshall	Chemistry	Postdoctoral	Support for experimental modeling	Catalyst manufacture	1	
Graduate Student	WVU	Physics	Student	Experimental program			
Graduate Student	WVU	Chem	Student	Modeling program			