

NUCLEAR ENERGY UNIVERSITY PROGRAMS (NEUP) PROPOSAL DEVELOPMENT GUIDELINES

NEUP funds nuclear energy research and equipment upgrades at U.S. colleges and universities through an annual competitive proposal solicitation, review, and award (subject to available funding allocated to NEUP). Because this is a competitive process, it is in the interest of the individual proposer to ensure their proposal is well developed, written, and understood. The following is guidance only and does not guarantee a successful award.

Proposal success depends on how the reviewers perceive your proposal in terms of the selection criteria set forth in the solicitation. Your chances of success are greatly reduced if your proposal is unclear, or confusing to the reviewers. Below are some actions and elements ascribed to success proposals.

I. CUSTOMER INTERFACE

- A. Interface with the program Technical Point of Contact—initiate discussions with the POC at the lab or at DOE to:
 - Understand the topics of interest, needs, and issues
 - Understand the funding constraints so you are proposing work within the estimated funding range
 - Ensure your proposal is responsive to the call and addresses the evaluation criteria.
- B. Attend the NEUP meetings to discuss topics of interest

II. PREPARATION

- A. Once you understand the customers' needs, make sure you know what work is already being performed and leverage work on other areas to make your proposal more cost effective.
 - What has previously been done?
 - Have you searched the literature?
 - Is your work new and different from others in your field?
 - Is the work you proposing technically relevant?
 - Is the work focused (solving a portion without trying to solve the whole problem)? But explain how the portion fits into the whole.

III. TEAMING

- A. Seek help! There are people in the labs and industry that may be interested in your ideas and be willing to collaborate out of interest alone. Don't be shy asking for help.
 - Seek advice to focus the scope of the work to program needs
 - Build a team with the appropriate talent

- Clearly state the capabilities at your institution, team members, and those of your partners.

IV. PROPOSAL PREPARATION

A. Think about your audience and what they might already know or not know about your topic.

- Don't make reviewers guess—they may be knowledgeable but unfamiliar with your concept. Make sure they have a clear understanding of what you are proposing—be clear. Incorrect assumptions on the part of the reviewer may result in rejection of your proposal
- Is your proposal well-drafted so the reviewers can navigate the document and recognize the merits of your approach, the scientific appeal, the value of your proposed project, and your teams ability/qualifications to succeed
- Propose the solution in strong, positive language. State what will be done, why it must be done, who will do it and where, when and how it will be done.
- If you have submitted the idea in the past and not been selected, interface with the TPOC for the subject area and confirm interest in the specific idea and the approach

B. Make sure the proposal is written well – English, content, and organization. You want the reviewer to focus on the merits of your ideas rather than being distracted by poor writing.

- Do you have clear goals, objectives, or hypotheses? You must define the problem you are addressing (the research question you are attempting to answer) and how you plan to approach the solution. Convince the reviewers your solution is best.
- Have you clearly communicated how the project links to and accomplishes the program goals with a clear scope of work?
- Are all project tasks and subtasks explained clearly, and are performance time spans and milestones summarized?
- Have all required elements of the proposal been included/completed?

V. BEFORE YOU SUBMIT

A. Before you submit your proposal, perform a critical evaluation—read it to make sure it says what you want it to say.

- Ensure it stresses the points the solicitation emphasized
- Do at least two drafts
- Get someone else to read it (a technical editor is advised) before you submit your proposal.

REASONS PROPOSALS ARE NOT SUCCESSFUL:

- Proposal does not adhere to solicitation requirements
– *Page limit, required documentation*

- Poor alignment with program needs (relevancy review)
- Poor approach to the solution (technical review)
 - *Diffuse, superficial, or unfocused research plan*
 - *Questionable reasoning in experimental approach*
 - *Absence of an acceptable scientific rationale*
 - *Unrealistically large amount of work*
 - *Uncritical approach*
 - *Lack of sufficient experimental detail*
- PI Knowledge and Capability
 - *Lack of knowledge of published relevant work*
 - *Lack of experience in essential methodology*
- Lack of new or original ideas
- Uncertainty concerning future directions

THINGS TO REMEMBER

- Do not simply cut and paste text from another document. If you must, make sure you read it. Is it relevant to the proposal or contain key information? Does it add clarity? If not, don't use it! If so, make sure to edit format and language to match?
- Don't continue to propose an old idea. Talk with the technical point of contact about your **specific** idea to see if they have any interest. If not, move on—propose something they view as relevant.
- Avoid the use of acronyms. You may think everyone knows what they stand for, but that is not usually the case.
- Don't change symbols or names for the same thing or use the same symbol for different things. Be consistent so your logic is easy to follow.
- Make sure your experience and qualifications to do the work are clear.
- As stated above, pay attention to formatting: logical/sequential section headings, consistent use of bullets and numbering, consistent use of fonts, capitalization, and italics. Maintain consistency in style (nothing smaller than 10pt font).
- Keep captions/legends with the appropriate graphic, table, or illustration. Do not allow the element to separate across page boundaries.
- Print the document and see how it looks. Does it layout nicely? Are colors showing the way you expected (don't rely on color alone)? Look for the subtleties of layout and format. Is it easy to read? Stay within the proposal guidelines for format, length, etc.
- Use simple language. There is no need to complicate what you are trying to say.
- Keep graphics simple. Complex illustrations, long equations, or complicated language is not very effective in communicating your proposed work.
- Cite only relevant literature. Make sure they are referenced correctly in your document.