Guide for the
Preparation of Proposals
for the Pre-Freshman
Engineering Program
Prep - 1981
( for Minorities and Women )
U.S. Department of Energy
Office of Consumer Affairs
Education Division

Deadline for Receipt of Proposals October 17, 1980
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Guide for the Preparation of Proposals for the Pre-Freshman Engineering Program Prep - 1981 (for Minorities and Women)

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I. GENERAL INFORMATION

Introduction

Historically, minority group members and women have not participated in scientific or technical careers to the degree that they are represented in the American population. Studies conducted in the last few decades strongly suggest that basic decisions about careers are made, perhaps unconsciously, by students as early as the seventh grade which lead them into habits and training programs that preclude college level education in science or engineering.

The Department of Energy (DOE) is concerned with the supply of manpower adequate for the implementation of energy plans, and is authorized in the Energy Reorganization Act of 1974 to "... assure an adequate supply of manpower for the accomplishment of energy research and development programs by sponsoring and assisting in education and training activities in post-secondary institutions, vocational schools, and other institutions...." Regardless of the eventual energy scenario(s) this nation adopts, engineers will be key professionals in their development and implementation. Engineering is also a profession in which women and minorities are characteristically underrepresented.

The Atomic Energy Commission initiated a limited assistance program in 1973 in response to studies which indicated that an important need existed in the recruitment and support of minority engineering students. This program has continued under DOE as the Pre-Freshman and Cooperative Education for Minorities and Women in Engineering (PREFACE) Program. To achieve equitable participation of all Americans in energy related careers that involve engineering, DOE this year will support projects aimed at increasing the educational opportunities available to minority group members and women in the field of engineering.

Description of Program

The Pre-Freshman Engineering Program (PREP) for minorities and women (formerly PREFACE) will provide funds to colleges and universities for projects aimed at seeking out minority group individuals and women during junior high school and high school years (7th grade through the summer preceding matriculation in college) and providing them with enrichment experiences. These experiences shall consist of activities to identify, motivate and prepare students for engineering studies. Emphasis is on the individuals identified, regardless of where they may decide to matriculate for undergraduate studies. Work experience is believed to contribute to the success of these projects because it exposes students to the real world of work of the professional engineer. However, no DOE funds may be used directly to support such work experiences.

It is highly desirable that the PREP activities of the proposing institution be correlated with and built upon the broader activities of the national efforts for both minorities and women in engineering. Previous studies have shown that activities in this area should focus on the pre-college years (pre-freshman year summer sessions are only one important aspect of the total pre-college effort, and tend to be geared to students already committed to engineering). Therefore, preference will be shown for proposals which promise to positively affect the younger uncommitted student before firm decisions have been made to not take the appropriate science and mathematics courses.

DOE Support

No support may be requested from DOE for cooperative salaries, work experience salaries, scholarships, or activities aimed at students already matriculated in engineering school or other college level work. It is important to point out that DOE's financial support to these projects should in no instance comprise the totality of funding for an individual project. In all similar previously funded projects, DOE support has been utilized along with other funds available to the college or university. In FY 1980, projects were supported at 29 institutions. DOE funds of approximately $400,000 were to be augmented by non-DOE funds in excess of $2.2 million to provide programs for more than 3,400 students. It is desirable that proposals to this year's program indicate similar substantial support from local industry and the college or university itself.

Equal Opportunity

As stated above, PREP is aimed at increasing educational opportunities available to minority group members and women. How-
ever, no individual may be discriminated against on the grounds of race, color, sex, national origin, age or handicap in the selection for, participation in, or otherwise in the administration of a PREP project.

Eligible Organizations

Proposals will be accepted only from U.S. colleges and universities which grant engineering degrees at the baccalaureate level or from institutions which have formal dual-degree pre-engineering programs with institutions granting engineering degrees at the baccalaureate level. (If applying under the latter category, specific information should be given regarding the formal dual-degree program.) Other institutions interested in participating in PREP may do so through cooperative projects with engineering degree-granting institutions (in this case, the proposal must be submitted by the engineering degree-granting institution).

Limitations on Proposals

Because of the limited funds available, a given proposal may request a maximum of $20,000 in DOE funds and a given institution may submit, or be involved in, only one proposal. (An average award of about $14,000 is expected.)

Notification of Award

Notification of award will be made on or about March 1, 1981.

II. PREPARATION AND SUBMISSION OF PROPOSALS

Proposals should be prepared by the individual who will be primarily responsible for the activity for which support is requested. The project director should be closely involved with the academic components of the project and will usually be closely associated with (pre-) engineering programs at the institution. The proposal must be certified by the President of the institution or his delegated officer, and is to be submitted by the institution. The entire proposal should be on 8½ X 11 inch paper, DOUBLE SPACED, with a maximum of 10 pages, exclusive of the Cover Sheet, Abstract, Budget and Budget Explanation, and Appendix (faculty data). Twelve (12) copies of the proposal should be submitted by October 17, 1980. Copy No. 1 of the proposal shall contain the signed original of all documents requiring signature by the offeror. Use of reproductions of signed originals is authorized in all other copies of the proposal. Proposal packages shall be marked as set forth below:

(NOTICE TO DOE MAIL ROOM: This is a proposal under Notice of Program Interest No. OCA-81-NPI-001 due 4:30 P.M., October 17, 1980. Date and time of receipt to be logged and also marked on this package.)

FROM: __________________________________________________________________________

TO: Oak Ridge Associated Universities*
University Programs
PREP
Box 117
Oak Ridge, Tennessee 37830

*Street address for hand delivered proposals: 246 Laboratory Road

As mentioned earlier in these guidelines, commitments from local industry and the college or university itself are desirable in conjunction with DOE PREP support. In this regard, the narrative and budget portions of the proposal should address the entire project, clearly identifying that portion funded by DOE.

A proposal for participation in the 1981 program should be prepared in five parts: Cover Sheet, Abstract, Budget and Budget Explanation, Narrative and Appendix.

1. Cover Sheet: The format for the Cover Sheet is shown in the sample included with these instructions, and one copy must bear the original signature of the Project Director and the certifying institutional official. The number of students to participate in the program should be realistically estimated based on the project described in the proposal. This number should include only those students to be involved during the DOE funding period of the project. The non-DOE contributions to the project should be calculated on this basis also.

2. Abstract: This should be a concise description of the project, not more than one double spaced, typewritten page in length.

3. Budget and Budget Explanation: The costs of the project are to be summarized as shown on the sample Budget Page included with these instructions. Some items, such as a. (2) below may be appropriately shown as non-DOE support although they are not eligible for DOE support. Two categories of support (participant support and operating costs) may be included in the combined DOE—non-DOE budget.
a. **Participant Support:** This support may include:

1. Summer Stipends for students while participating in summer enrichment programs. These stipends may not exceed the cost of food, lodging, travel, and books for the summer program.
2. Salaries for students during any work experience included in the project. (No DOE funds may be requested for this.)
3. Other (specify) Activities related to participant cost not shown in (1) or (2) above.

b. **Operating Costs:** The following categories of support are illustrative of the type of support that may be requested:

1. Costs for staff and direction of the project. These costs should be consistent with the normal salary of the individual(s) involved, prorated for the percentage of time spent on the project.
2. Indirect costs at the regular institutional rate, or at 25 percent of direct operating costs (Budget Page-categories B.1-B.4), whichever results in the lesser amount.

A brief section should follow the Budget Page justifying the level of support requested, category by category. Cost-sharing by the institution and/or other sources should also be discussed here.

The DOE reserves the right to negotiate changes in the proposed budget, as well as to disapprove or approve post-award adjustments between categories.

4. **Narrative:** This section of the proposal should give enough information so that the reviewers can make an informed judgment on the merit of the project. Information in this section should include, but is not limited to:

a. A statement of the objectives, mechanisms, and scope of the proposed project. In developing this statement, the need for conducting the project and the results expected should be made clear.
b. Previous projects directed at recruiting minority and women engineering students at the institution, whether Federally funded or not, should be described in detail. A summary of student retention success from previous projects is appropriate.
c. Commitments from industry and the college or university itself for the project described in the proposal should be stated.
d. Commitment and plans for recruiting “qualified” as well as “qualifiable” minority and women students should be described. This should include a description of the method of selecting participants. Although it is recognized that programs such as PREP may be utilized by institutions for their own recruiting efforts, it should be remembered that the long-range goal of PREP is the increase in the number of graduating minority and women engineering students regardless of where they choose to do their undergraduate studies. Therefore, a project requesting PREP support must focus on this long-range objective. Any local benefit must be incidental to the project as opposed to being the main focus.

e. The facilities and the staff required to carry out the project and the ability of the host institution to meet such requirements should be described. Vita of the Project Director and staff should be included in the Appendix. Indicate the availability of laboratory and other facilities that will be used in connection with the project. IT IS IMPORTANT THAT THE PROJECT DIRECTOR BE CLOSELY INVOLVED IN THE PROJECT AND SHOULD NOT SERVE MERELY AS AN ADMINISTRATOR.

f. It is very important for PREP to have feedback on the success of the various projects in their efforts to increase the pool of minority and women engineering graduates. Each proposal should describe the mechanism to be used by the institution to provide for following the progress of their participants after the initial PREP contact.

g. There is no separate competition for renewal projects. However, if the proposal requests renewal of an award made in previous years, evidence that previous projects have had beneficial effects MUST be presented. Special attention will be paid to this discussion during the review process. Follow-up data on previous participants is appropriate in this regard. Several of the review criteria may be appropriately applied to this information.

5. **Appendix:** The Appendix should be used to present data on the faculty and/or staff to be involved in the project. Vita for only those to be involved in the project should be included. These should be arranged by the degree of participation in the project. THESE DATA MUST BE LIMITED TO ONE PAGE FOR EACH PERSON.

6. **Acknowledgement of Receipt of Proposal Packages:** To facilitate prompt acknowledgment of the arrival of the package at DOE, the proposer should cut out two postcards from the last page of this guide, fill them in to identify the proposal, address one card to the Project Director and the other to the official authorized to sign the Cover
Sheet, and attach them to the Cover Sheet of the Signature Copy. When the package arrives, the date of receipt and an assigned Proposal Number will be stamped on the card before it is returned so that the proposer and DOE may refer to this Proposal Number in correspondence about the proposal. If receipt is not acknowledged within 2 weeks of submission, the Oak Ridge Associated Universities should be contacted promptly at (615) 576-3423.

7. Confidential Information: When a proposal results in an award, it becomes a part of DOE's record of the transaction, available to the public upon specific request. A proposal that does not result in an award may be retained by DOE. Any information that the applicant wishes to have DOE consider as privileged should be clearly marked as such. While the DOE is responsible for making the final determination with regard to disclosure or nondisclosure of information contained in requested documents, DOE will consider the views of the applicant in making its determination.

8. Civil Rights Assurance: Assurance of Compliance with the Department of Energy under Title VI of the Civil Rights Act shall be made on behalf of the proposing organization and included in each proposal on the form provided on page 9.

9. DOE's Right Not to Make Award: DOE reserves the right to support or not support all, none, or any number or part of the proposals submitted. This Notice of Program Interest does not obligate the Government to pay any costs incurred in the preparation and submission of proposals, nor to make a grant to the proposer. All proposers will be notified in writing of the acceptance or rejection of their proposals.

III. EVALUATION AND SELECTION OF PROPOSALS FOR SUPPORT

Proposals will be reviewed by qualified professional personnel from the educational and industrial communities, as well as DOE and other Government agencies. These reviewers act in an advisory capacity for the review of proposals. Proposals selected for support will be those which in the judgement of the reviewers and DOE professional staff are the best able to offer high quality projects and which meet other agency programmatic criteria.

Review criteria which will be utilized include the following:

1. The extent to which the proposal demonstrates evidence of present and past institutional commitment to PREP objectives.
2. The degree to which preparations have been made for the project, in terms of agreements with local industry, etc.
3. The degree to which the proposed plans are clear and complete, with need for the project and expected project impacts clearly noted.
4. The significance of an increase in minority and women engineering student population that can be expected per dollar of DOE investment. (Is it worth the cost?)
5. The extent to which the proposed educational program is sound and appropriate.
6. The degree to which the expertise and breadth of the project personnel appear adequate and appropriate for the task and the degree to which the facilities of the host institution enable it to meet the requirements of the project.
7. The extent to which plans have been made to follow student progress after they have participated in the PREP project.

In cases of substantially equal merit geographical considerations may be given in the final selection of awards.

IV. FINAL REPORT

A final report must be prepared within 6 weeks following the close of the project and forwarded to the Education Division, Office of Consumer Affairs, U.S. Department of Energy, Mail Stop 7E054, Washington, D.C. 20585. The report should contain a description of the work performed, a list of students, the Director's evaluation of the effectiveness of the project in meeting its objectives and a time table for providing follow-up data on the participants. A financial statement of expenditures must also be submitted before final payment can be made under the award.

The Department of Justice requires an annual report from Federal agencies concerning the participation of "protected groups" in educational programs supported by public funds. In order to meet this responsibility, the following breakdown will be necessary:

1. Total Participants (male and female)
2. Blacks (male and female)
3. Spanish-speaking (including all of Spanish-speaking or Spanish-surnamed heritage—male and female)
4. American Indians (male and female)
5. Asian Americans (male and female)

Page 17900 of the Federal Register for April 4, 1977 should be consulted for details regarding the above categories.
V. PUBLICITY

Two copies of any announcement brochures or application forms should be forwarded to the Education Division as soon as possible. The announcement should clearly outline the project to be offered and the criteria for admission. Any special features or objectives of the project should be described. The announcement MUST carry the following statements:

"In selecting individuals for participation and otherwise in the administration of this project (insert name of institution) will not discriminate on the grounds of the race, sex, color, age, handicap, or national origin of any applicant."

"This project is supported (in part) by the Department of Energy, Office of Consumer Affairs through its Education Division."

VI. MISCELLANEOUS

Questions pertaining to PREP should be directed to:

Dr. Ruth Ann Verell
Education Division
Office of Consumer Affairs
U.S. Department of Energy
Mail Stop 7E054
Washington, D.C. 20585
(202) 252-6480

U.S. DEPARTMENT OF ENERGY
PREP
COVER SHEET

1. Title of Project: ______________________________________________________

2. Institution: _________________________________________________________

3. Address: City ___________________ State ___________ Zip ___________

4. Director's Name: ___________________ Department: ___________________

   Telephone: A.C. ___________ Office ___________ Home ___________

5. Duration of Project: From ___________ To ___________ (Date) (Date)

6. Total DOE support Requested: $ ____________________

7. Support from Institution and Other Sources: $ ____________________
   (During Period of Project)

8. Number of Students to Participate Directly in Program
   During the Duration of the Project: ____________________

9. Signature of Director: _____________________________________________

10. Name and Title of Certifying Official (President or Designee):

    _______________________________________________________________

    Signature: _____________________________________________________

11. Date: ___________________________________________________________
### Institution: Project Director:

### Project Title: ___________  Duration: ___________

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<thead>
<tr>
<th>A. Participant Support</th>
<th>Non-DOE Funds</th>
<th>DOE Funds</th>
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<tbody>
<tr>
<td>1. Summer Stipends</td>
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<td>2. Work Experience</td>
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<td>N.A.</td>
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<td>3. Other (Specify)</td>
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<td>4. TOTALS</td>
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<tr>
<th>B. Operating Costs</th>
<th>Non-DOE Funds</th>
<th>DOE Funds</th>
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<tbody>
<tr>
<td>1. Director</td>
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<td>2. Staff</td>
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<td>3. Staff Benefits</td>
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<td>4. Other (Specify)</td>
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<td>5. Indirect Costs (See Instructions)</td>
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<td>6. TOTALS</td>
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**Total Project Costs**  
*(Add Lines A4. and B6.)*
U.S. DEPARTMENT OF ENERGY

ASSURANCE OF COMPLIANCE

Nondiscrimination in Federally Assisted Programs

(Hereinafter called the "Applicant")

(Name of Applicant)


Applicability and Period of Obligation

In the case of any service, financial aid, covered employment, equipment, property, or structure provided, leased, or improved with Federal assistance extended to the Applicant by the Department of Energy, this assurance obligates the Applicant for the period during which Federal assistance is extended. In the case of any transfer of such service, financial aid, equipment, property, or structure, this assurance obligates the transferee for the period during which Federal assistance is extended. If any personal property is so provided, this assurance obligates the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Applicant for the period during which the Federal assistance is extended to the Applicant by the Department of Energy.

Employment Practices

Where a primary objective of the Federal assistance is to provide employment or where the Applicant’s employment practices affect the delivery of services in programs or activities resulting from Federal assistance extended by the Department, the Applicant agrees not to discriminate on the ground of race, color, national origin, sex, age, or handicap, in its employment practices. Such employment practices may include, but are not limited to, recruitment, recruitment advertising, hiring, layoff or termination, promotion, demotion, transfer, rates of pay, training and participation in upward mobility programs, or other forms of compensation and use of facilities.

Subrecipient Assurance

The Applicant shall require any individual, organization, or other entity with whom it subcontracts, subgrants, or subleases for the purpose of providing any service, financial aid, equipment, property, or structure to comply with laws cited above. To this end, the subrecipient shall be required to sign a written assurance form, however, the obligation of both recipient and subrecipient to ensure compliance is not relieved by the collection or submission of written assurance forms.
Data Collection and Access to Records

The Applicant agrees to compile and maintain information pertaining to programs or activities developed as a result of the Applicant's receipt of Federal assistance from the Department of Energy. Such information shall include, but is not limited to, the following: (1) the manner in which services are or will be provided and related data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination; (2) the population eligible to be served by race, color, national origin, sex, age and handicap; (3) data regarding covered employment including use or planned use of bilingual public contact employees serving beneficiaries of the program where necessary to permit effective participation by beneficiaries unable to speak or understand English; (4) the location of existing or proposed facilities connected with the program and related information adequate for determining whether the location has or will have the effect of unnecessarily denying access to any person on the basis of prohibited discrimination; (5) the present or proposed membership by race, color, national origin, sex, age and handicap, in any planning or advisory body which is an integral part of the program; and (6) any additional written data determined by the Department of Energy to be relevant to its obligation to assure compliance by recipients with laws cited in the first paragraph of this assurance.

The Applicant agrees to submit requested data to the Department of Energy regarding programs and activities developed by the Applicant from the use of Federal assistance funds extended by the Department of Energy. Facilities of the Applicant (including the physical plants, buildings, or other structures) and all records, books, accounts, and other sources of information pertinent to the Applicant's compliance with the civil rights laws shall be made available for inspection during normal business hours on request of an officer or employee of the Department of Energy specifically authorized to make such inspections. Instructions in this regard will be provided by the Director, Federally Assisted Programs Division, Office of Equal Opportunity, U.S. Department of Energy.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts (excluding procurement contracts), property, discounts or other Federal assistance extended after the date hereto, to the Applicant by the Department of Energy, including installment payments on account after such date of application for Federal assistance which are approved before such date. The Applicant recognizes and agrees that such Federal assistance will be extended in reliance upon the representations and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, as well as the person whose signature appears below and who is authorized to sign this assurance on behalf of the Applicant.

(Date)

(Name of Applicant)

(Address)

(Authorized Official)

(Applicant's Telephone Number)
NOTIFICATION OF RECEIPT OF YOUR PROPOSAL WILL BE PROVIDED YOU BY THE SELF-MAILER

PRINT CLEARLY YOUR NAME AND ADDRESS AND INCLUDE THE SELF-MAILER WITH YOUR SUBMITTAL.
PREP Proposal FY 81

Institution ____________________________________________

Project Director ________________________________________

______________________________________________________

(To be filled out by DOE)

Date Received __________________________________________

Proposal Number _________________________________________

Proposal Acknowledgment Cards

(To be filled out by proposing Institution:
- Address one card to proposed Project Director,
- Address one card to the Institution's official authorized to sign cover sheet)

COMPLETE BOTH SIDES AND SEND WITH PROPOSAL