Proposals: Write to Win
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Abstract—Knowing ahead of time what a proposal evaluator looks for will help increase your chance of writing a winning proposal. Winning proposals contain (1) a proposed line of investigation, (2) a method of approach to the problem, (3) recommended changes (if appropriate), (4) logical work units, and (5) estimated completion time. Other tips include writing directly and specifically and making the proposal complete and easy to read.

Are you involved in any facet of technical proposal writing? If so, knowing how it will be evaluated might suggest how to write to enhance its chance of success. This article is written from the perspective of one who requests and evaluates technical proposals.

Winning proposals require the best of all four forms of writing: exposition, description, narration, and persuasion. As an instrument of persuasion, it must be aimed directly at the interests and objectives of the customer. Company interests, prejudices, and conflicting goals must be avoided in the proposal. The writer must achieve a customer-oriented tone and resist a natural tendency to offer personal views.

Only a small percentage of proposals are winners in technical circles—as in social circles. But proposal preparation represents no small investment of time, money, and facilities. Some degree of success must be achieved to justify continued investments in proposal writing.

Research-and-development proposals are among the most difficult to write, and often they are the most difficult to evaluate. The reason? The limited knowledge available—for both the writer and the evaluator. In early research work there is usually no universally agreed and predetermined best way or approach. Both the preparation and the evaluation are based on predictions and estimates, usually with a host of unknown complicated factors. Writers and evaluators understandably feel that theirs is a difficult task.

PROPOSAL REQUEST
The request for proposal (RFP) includes a section that outlines the work for which the proposal is solicited. This section is most important to the proposal writer. Often called the “technical exhibit,” it offers the only specific guidance and criteria about the work the winner will do. Your proposal must respond to this section better than all other competitors. Keep in mind that (1) the work described in the technical exhibit will be done (there is no need for your proposal to convince anyone that it should be done) and (2) someone will do the work. Your proposal must persuade the evaluators that you should be the one to do it. Sometimes a problem develops at this point. The possible problem is a combination of communication and understanding. The technical exhibit was written by one who presumably knows what is wanted (the result) but may not know for sure the best way to achieve it. If it had been known, the request would not be for a research proposal but for hardware. A list of specifications would have been provided with the request for you to design, assemble, fabricate, or build the item to satisfy the given specifications.

If the technical exhibit is not well written or if you, as a proposal writer, misinterpret some part of that technical exhibit, the result could be disastrous. You may write an excellent proposal—offering the best possible solution—but for the wrong problem!

Don’t read the technical exhibit just once and charge into the proposal preparation. Study the technical exhibit to see if there could be something more (or different) really asked for. The sender and the receiver may be on different wavelengths.

PROPOSAL CONTENTS
A technical exhibit might have more than one possible interpretation; your proposal does not have that luxury! A technical proposal must be specific and complete. A competitor with a more specific proposal will make you look bad. If your proposal is incomplete or vague, the evaluators are likely to consider you incapable.

Your technical proposal has to stand alone as advocate and defender during the evaluation process. Only information contained in the proposal is going to be considered during
the evaluation. If your company is recognized as the leader in the specific technology needed to solve the problem, state that fact, with justification in the proposal to increase your chance of being favorably reviewed.

Several acceptable proposal formats exist; however, any good research proposal includes

1. A proposed line of investigation  Brief but specific. The customer is entitled to know exactly what steps you plan to take. Restate the specific problem and define the specific solution you expect to offer.

2. A method of approach to the problem  An especially important element in research. Often the probability of success depends on how you approach the problem. Convince the evaluators that you plan to spend the money you will receive in a manner that offers the highest probability of success.

3. Recommended changes  Perhaps not an obvious proposal inclusion. In research work, however, your company experts may know (or infer) that a part of the work requested in the technical exhibit has already been done and will contribute nothing to the solution of the problem. Also, some work that needs to be done may have been omitted from the technical exhibit. In these cases, the evaluators will appreciate your recommendations to improve the effort or decrease the cost. After all, one evaluator will probably be assigned to monitor the program; its degree of success will affect his or her future.

4. Logical work units  A list of logically sequenced phases with reasons why they optimize chances of success.

5. Estimated completion time  A timetable to indicate when results will be available and to define the proposed expenditure of funds and labor.

Your proposal should not merely offer to conduct an investigation in accordance with the technical exhibit. Even unqualified companies can say “yes, yes” and still not be able to produce. Clearly state in the proposal what, how, why, and when things will be done.

TECHNICAL EVALUATION

Once submitted, your proposal is on its own. In the evaluation arena each proposal is examined thoroughly and a winner selected. Rarely is there a prize for “place” or “show.”

The criteria for evaluation certainly vary, but two broad categories cover much of the technical information of interest to evaluators: (1) qualifications of the organization and (2) the scientific/engineering approach.

Qualifications

1. Specific experience  List the specific, related, and pertinent experience of the company and the personnel who will perform the proposed work.

2. Technical organization  Consider three aspects of organization:
   (a) How the proposal is organized. Often the proposal format and appearance indicate how reports will be presented.
   (b) How the personnel, resources, and facilities working on the program will be organized.
   (c) How the company is organized. Do the researchers on this program have access to top management in the company?

3. Special equipment and facilities  Indicate that all necessary equipment and facilities needed to complete the program are available.

4. Analytical capacity  Ensure that adequate computational and analytical skills necessary for this program are available.

5. Level of effort and support  Be sure that enough person-hours will be dedicated to this program. Is the mix of the time and skills proper to complete the program? Will the company adequately support its personnel working on this program? How much of the total program effort must be obtained from other divisions of the company—or subcontracted from other companies?

Scientific/Engineering Approach

1. Understanding of the problem  The proposal must reflect a good understanding of the problem. The first step in the solution of any problem is a complete and in-depth understanding of the real problem.

2. Soundness of approach  There may be more than one way to approach the problem. The proposal must show justification and sound technical reasons for the one offered.

3. Compliance with requirements  The technical exhibit often calls for specific requirements such as reporting schedule and format. The proposal should indicate clearly that all such requirements will be satisfied.

4. Special technical factors  If there are any special benefits that favor your company’s doing the proposed work, mention them in the proposal. When two proposals are essentially equal, consideration of items in this category could make a difference.

SUMMARY

Advice for writing a winning proposal includes

1. Be sure you understand the problem.
2. Address the problem directly; be specific.
3. Write descriptively.
4. Make the proposal easy to read.
5. Make the proposal complete and self-supporting.
6. Include all pertinent information; leave nothing for the evaluators to assume (they aren’t supposed to, anyway!).

Finally, recognize that the evaluators will infer from the quality of writing in your proposal the quality to expect in a final report.