

Project Assistance Application *Parts B-L*

To assist reviewers in their review of the merit of this opportunity, please address the following questions in a Microsoft Word file not longer than 15 pages (not including business plan and other attachments). This document should be attached to an email submission with the other parts of this application and labeled as Parts B-L.

Note: This proposal format is modeled on DOE SBIR application requirements. Your responses may be used to prepare a SBIR application.

B. Identification and Significance of the Problem or Opportunity, and Technical Approach (2 page maximum)

Describe the problem/opportunity being addressed, its scope, current options to manage it, a technical description of the proposed approach, and a comparison to alternative approaches.

C. Anticipated Public Benefits (1 page maximum)

Identify the types and number of jobs that can be reasonably expected for the conceivable future. Quantify the energy impact resulting from anticipated product use.

D. Technical and Business Objectives (1 page maximum)

State the specific technical and business objectives to be accomplished (in bullet format).

E. Phase I Work Plan (3 pages maximum)

Describe between 4 and 8 tasks that will be undertaken during this project. Be certain to describe who will be involved, what will be accomplished, and how success will be measured.

F. Phase I Performance Schedule (1 page maximum)

Provide a simple Gantt chart summarizing activity under this program, identifying specific numbered tasks to be completed. Project terms are typically expected to be 6-18 months.

G. Related Research or R&D (1 page maximum)

Describe applicant's past and current activities of relevance to this project (if any), relevant scientific advances, competitor's R&D activities, and any potentially disruptive technologies on the horizon.

H. Principal Contact and other Key Personnel

Provide 1 page biographies of no more than 3 key personnel.

I. Facilities/Equipment (1 page maximum)

Describe available equipment and physical facilities necessary to carry out the proposed project. Any facility or piece of equipment not under the direct and complete control of the applicant requires a letter from the appropriate organization (submit in Part L. Attachments)

J. Consultants and Subcontractors

Identify any consultant or subcontractor that will be involved. Directed Energy may recommend strategic partners, vendors and consultants for its applicants, but requires applicants to identify and describe their needs.

K. Budget (2 pages maximum)

Itemize to the extent possible what types of funds will be required to accomplish different technical and/or business objectives. Incidental costs are the responsibility of the applicant organization. Directed Energy funds may be used to pay for a wide variety of costs including, but not limited to, prototyping services, testing services, business and technical consultants, and costs associated with product launch. Directed Energy reserves the right to negotiate changes in the types and form of assistance subject to the approval of the client.

Directed Energy will make investments of between \$50,000-\$75,000 to successful Applicant Companies. Applicants will be required to "cash match" Directed Energy funds at 25% and describe/justify a minimum of a 75% in-kind match which may involve materials and supplies, labor, or other direct costs directly associated with the project. Applicants that match Directed Energy funds above the minimums will be given additional consideration. Matched Funds are expended first.

Please use the sample format below (it should be largely consistent with section F - Performance Schedule).

Task description	Company Cash	Company in-kind	DE funds
Task I: Design of improved quarter scale wind turbine blade	\$8,000	\$10,000	\$0
Task II: Fabrication of 2 blade molds at \$4,000 ea.	\$4,000	\$4,000	\$0
Task III: Production of 20 blades with variable composition	\$400	\$11,000	\$0
Task IV: Testing of blade design in ACME wind tunnel tests	\$1,000	\$6,000	\$15,000
Task V: Mechanical, wear and environmental testing	\$0	\$3,000	\$20,000
Task VI: Engage consultant team to review data	\$0	\$5,000	\$10,000
Task VII: Produce full scale turbine mold	\$0	\$5,000	\$6,000
Subtotal:	\$13,400	\$44,000	\$51,000
Match percentage:	26.3%	86.3%	

Provide additional detail in narrative form as necessary to describe the nature of the costs and the matches. For example, the following would be used to describe costs associated with Task IV:

Task IV Testing of blade design in ACME wind tunnel

Michael Johnson at ACME's wind tunnel located in Buffalo NY has quoted \$1,500 a day for access to the wind tunnel facility and has estimated that we will require 10 full days to finish the testing described in the work plan (see attached letter); these fees will be paid by Directed Energy. The company will contribute 100 man hours of a Jr. engineer's time estimated at \$40 per hour and 40 hours of Dr. Betz's time @50\$/hr. Company will purchase 4 air flow sensors (@\$250 each) coupled to the company's SXM3000 wind test platform to make the necessary measurements.

L. Attachments:

- Applicant's Business Plan (required)
- Other documents (including supporting letters) as necessary