Section 3—Letter of Intent

Appropriate upper management within the industrial end-user company must provide a letter of intent to support the demonstration project. This letter will show evidence that the company upper management (e.g., Vice President, Engineering Director/ Manager, Plant Manager, etc.) is aware, endorses, and is supportive of the project at the proposed facility, and the company will provide the necessary resources to the project, if selected.

Section 4—MOTOR CHALLENGE Application Forms

Each participating proposing Showcase Demonstration team member company or organization must join the MOTOR CHALLENGE program by submitting an appropriately completed application. Applications can be obtained by calling the MOTOR CHALLENGE Hotline number 1–800–862–2086. This section should contain all completed application forms.

Availability of Federal Funds

Approximately $1.5 million in FY 1996 of Federal funds is expected to be available to support the activities, authorized pursuant to Section 2101 of the Energy Policy Act of 1992, 42 U.S.C 13451, in support of the Showcase Demonstrations. These Federal funds will be managed through the DOE Office of Industrial Technologies' Motor Challenge program. Subject to the availability of appropriated funds, up to 10 proposals may be selected as Showcase Demonstrations in accordance with the evaluation criteria stated below. All selected Showcase Demonstration projects will receive no Federal financial assistance, but will be provided technical assistance by DOE as stipulated above.

Technical Evaluation Criteria and Review Process

Proposals will be reviewed and technically evaluated by staff members of the Oak Ridge National Laboratory.

Proposal Technical Evaluation Criteria

All proposals submitted in response to this notice will be technically evaluated by two major categories as follows:

Category (1) Overall technical merit. The overall technical merit will consider such factors as the practicality and likelihood that the project will achieve success and the benefits claimed; and reliable and defensible performance measurement techniques will be employed to ascertain the project's costs and benefits.

Category (2) Economic significance if the project were to be successfully replicated within the company and throughout the United States. Factors to be evaluated that will influence the ability of the Showcase Demonstration to impact the market are: the estimated cost-effectiveness of the demonstration, the qualitative level of productivity gain and non-energy cost savings from the application, and the comparative significance of estimated energy cost savings if the demonstration were to be replicated more broadly at the facility and within the end-user's company.

Proposal Policy and Programmatic Factors and Applications of Greater Interest

DOE will use policy and programmatic factors to select the proposals of greatest interest. To attempt to ensure that a broadly representative group of proposals are selected, DOE will seek diversity in the Showcase Demonstrations selected by considering: geographical location, application type, industry type, and facility size (e.g., annual electricity costs) of the Showcase Demonstration.

DOE prefers proposals for projects that are no further along than the engineering design stage. However, if a project is further along, DOE will consider the project as a Showcase Demonstration candidate, if a reliable and defensible methodology of establishing a performance baseline of a conventional system is available. For example, if another conventional system is currently operating, and a performance baseline of the conventional system can be measured and reliably compared to the demonstration project, then this would be acceptable to DOE.

DOE has identified the following seven broad technical applications as those in which it is most interested in receiving Showcase Demonstration proposals:

(1) Applications where new efficient electric motor and drive designs are creatively and cost-effectively integrated within specific mechanical component systems (e.g., pumps, fans, compressors, etc.), or processes so as to yield improved energy efficiency, productivity improvement, and reduced life-cycle cost relative to typical conventional operating systems.

(2) Applications where an efficient electric motor and drive system replaces a less efficient heat-engine/mechanical drive system (e.g., steam turbine) to yield primary energy savings, productivity improvement, and environmental improvement both at the facility and on a global basis.

(3) New manufacturing production lines where state-of-the-art motor and drive system utilization results in energy efficiency and productivity improvement compared to similar conventional operations.

(4) Novel electric motor, drive, and mechanical system retrofits that are more optimally matched to yield overall improved system energy efficiency, reliability, and productivity improvement.

(5) Demonstration of exemplary electric motor and drive system management policies and maintenance practices that result in higher process reliability and gradual, but continual, overall energy efficiency improvement. Topical areas of interest could be motor repair and rewind techniques, electrical distribution improvement, and mechanical system maintenance and optimization.

(6) Demonstrations that identify and implement the solution to power quality problems, and by doing so, effectively increases total system efficiency and productivity. Specifically, projects addressing the impact of power quality on motor drives and other motor system components which quantify the true cost/benefits of power quality enhancement with respect to total motor system efficiency, reliability and productivity.

(7) Implementation and retrofit of efficient motor and drive systems on *industrial* heating, ventilating, and air conditioning (HVAC) equipment or motor-driven industrial process heating or cooling systems. These systems should be integrated creatively and cost-effectively within an entire, or a portion of, an industrial facility or process to yield improved energy efficiency, reduced life-cycle cost in an environmentally-acceptable manner. [HVAC for industrial or manufacturing facilities are only of interest, not HVAC for space conditioning of an office or commercial facility].

Projects could involve a single unit of equipment, a unit operation, a series of replicable equipment, an entire process, or an entire facility. In general, proposals are desired which could lead to demonstrably higher U.S. industrial productivity, energy efficiency, environmental enhancement, and improved competitiveness once the application is replicated on a widespread basis throughout the United States. This listing is meant to be illustrative, not exclusive.

Final Proposal Selection

The recommendations of the technical merit review will be provided by Oak Ridge National Laboratory to