

Example: DOE Phase I SBIR/STTR Letter of Intent (LOI)

DOE General Comments: The primary purpose of the LOI is to enable DOE program managers to assign reviewers. Your technical abstract should contain sufficient technical information so that reviewers with appropriate technical backgrounds can be identified for your application. However, your LOI should not include any proprietary information. The technical abstract should not exceed 500 words and 2 pages. Diagrams and figures may be included but the resulting abstract may not exceed 2 pages.

The secondary purpose of the LOI is to ensure that your application is responsive to the topic and subtopic that you select. If, upon reading your LOI, a DOE program manager determines that your LOI appears to be non-responsive, you will receive a notification email from the DOE SBIR/STTR Office with this indication. Because your abstract is necessarily brief, this notification will only indicate that your LOI appears to be non-responsive. You are still eligible to submit a full application, but we encourage you to read and review the topic carefully to ensure that your application is indeed responsive. Please note that only applicants that appear to be non-responsive will be notified. If your application appears to be responsive, no notification will be provided.

Below we provide only a sample technical abstract which you will upload as a .pdf attachment. All other information—title, topic, subtopic, PI, Business Official, Small Business Name and Address, subcontractors, consultants, etc., will be provided online during the process of uploading your abstract.

[Note that information provided in the technical abstract below provides sufficient information to determine responsiveness to the topic and subtopic (first paragraph) and identify technical reviewers (second paragraph). You may use fewer than 500 words; however, we must be able to determine the type of technical reviewers needed and the overall responsiveness to the topic and subtopic.]

Technical Abstract

ABC LLC will develop a new class of low cost battery separator material for the lithium ion batteries. It is anticipated that the cost of this separator will be 70% lower than separator materials available today and will be a critical factor in reaching the \$150/kWh cost target specified in topic 4b for lithium ion batteries for electric vehicle applications.

These separators will utilize a new optically-activated method of producing pores in nano-structured polyolefin films. This optical pore formation method results in a 10x increase in the speed of creating porous films. During Phase I, ABC LLC will (1) develop the compositions and methodology for formulating the dense nano-structured polyolefin films and (2) carry out preliminary feasibility studies to characterize the appropriate optical intensities and wavelengths to achieve uniform, high speed, pore formation. It is anticipated that multiple iterations will be required to optimize the composition and nanostructure of the precursor films to achieve the desired porosity and process speeds. All processing work will be carried out at ABC LLC but polymer characterization will leverage capabilities of the Polymer Lab at State University to evaluate the structure, porosity, tortuosity, and thermal properties of the polymer films. In addition we will be collaborating with Lion Battery Inc. who will do preliminary battery testing of our separator materials to identify any manufacturing or performance issues of the separators.