

**SBIR 06.2 PHASE I - AWARD DETAILS****ORGANIZATION**

ARDEC

**TOPIC NUMBER**

A06-038

**CONTRACT NUMBER****YEAR OF AWARD****AWARD START DATE****AWARD COMPLETION DATE****PROPOSAL NUMBER**

A062-038-2087

**TITLE**

Low Cost, Improved Thermal Batteries

**PROJECT MANAGER**

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**COMPANY**

Electro Energy, Mobile Products Inc.  
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Minority Owned: No  
Woman Owned: No  
Veteran Owned: No  
Number of Employees: 65

**KEYWORDS**

battery, thermal, smart projectile, power generation, smart munitions, guided munitions, microelectronics, continuous processing

**ABSTRACT**

MEPI has developed inexpensive continuous process manufacturing techniques for the production of thermal battery electrodes and separators. These cell components are flexible and as a result can be used to fabricate thermal batteries that have three-dimensional shapes. Electrodes using these techniques have been fabricated and have demonstrated performance superior to that of pressed pellet electrodes. MEPI electrodes require only the amount of material necessary for electrochemical performance, which means the thermal batteries are smaller and less expensive than standard thermal batteries. Using this novel approach for the fabrication of thermal battery electrodes and other cell components, this proposal outlines a 10 month research and development project for the design and fabrication of three dimensional conformal thermal batteries with improved manufacturing and performance characteristics.

**BENEFITS**

This proposal provides for an innovative approach to the development of low cost, improved performance, three dimensional conformal thermal batteries.