

PMC-EF2a

(2010)

**U.S. DEPARTMENT OF ENERGY  
EERE PROJECT MANAGEMENT CENTER  
NEPA DETERMINATION**



RECIPIENT: Rochester Institute of Technology

STATE: NY

PROJECT TITLE : Integrated Power For Microsystems

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-FG36-08GO88110	GFO-09-025-002	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

**CX, EA, EIS APPENDIX AND NUMBER:**

## Description:

- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).
- A9** Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

## Rational for determination:

Rochester Institute of Technology proposes to use federal funding to advance the research of lithium ion batteries, quantum dot photovoltaics, and beta-voltaic power sources. Due to a technology barrier the availability of efficient and reliable power sources is needed.

This project will include research to advance lithium ion batteries to include conductive additives, cathode materials, anodes, electrodes, and pathways to increase battery life; strain compensated quantum dot photovoltaic material will include optimizing growth by use of nanotechnology; betavoltaic power sources will include development of heterojunction photodiodes, bragg reflector development, and anti-reflection coating development; and project management and reporting.

This project will include conventional laboratory research that will take place within a laboratory on the Rochester Institute of Technology campus. The applicant has submitted an R & D Questionnaire which thoroughly addresses chemical and safety handling protocols.

This project will comprised of research and development to include reporting on findings; therefore a CX A9 & B3.6 will apply.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 9/20/2010

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: Kristin Kerwin

Date: 9/22/2010