

PMC-EF2a

(204.02)

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



RECIPIENT: IBM Corporation, T.J. Watson Research Center

STATE: NY

**PROJECT TITLE :** A Measurement – Management Technology for improving Energy Efficiency in Data Centers and Telecommunication Facilities

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000107	DE-EE0002897	GFO-10-241	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).
- B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.
- 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:

IBM Corporation, T.J. Watson Research Center and the Georgia Institute of Technology (GIT) is proposing to use ARRA funding through DOE to develop a software tool and the underlying technology components to provide critical decision support and controls for data center and telecommunication facilities operations to improve energy efficiency.

Project activities involve field testing of technology, technology research and commercialization of software technology. Support commercialization of MMT 2.0 will be accomplished by developing detailed business plans, marketing collaterals and finding commercialization partners for enabling technologies.

The project will involve field testing of the MMT 2.0 software technology that will demonstrate significant energy savings at very different test sites. Sites include the Classical/Legacy Data Center, Enterprise Data Center, Video Hub office, Mobile telephone switching office, Central Office (CO#1), Central Office (CO#2). These facilities are existing datacenters and telecommunication facilities managed by AT&T. They vary in size, age, location, and consequently - climate conditions. Software will be developed at IBM facilities and GIT while the sensors used for gathering site environmental data will be developed at IBM facilities.

An R&D questionnaire has been filled out for IBM and GIT laboratory facilities and AT&T datacenters and telecommunication facilities. These questionnaires thoroughly address all established safety protocols, hazardous material handling and waste disposal protocols applicable to project work by each company.

This project comprises information gathering, conventional laboratory bench-scale research in established University facilities and small scale energy conservation demonstration; therefore a CX A9, B3.6 and B5.1 apply.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

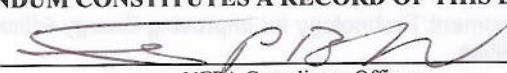
Insert the following language in the award:

Note to Specialist :

None Given.

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

NEPA Compliance Officer Signature: \_\_\_\_\_



NEPA Compliance Officer

Date: \_\_\_\_\_

3/2/10

**FIELD OFFICE MANAGER DETERMINATION**

Field Office Manager review required

**NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:**

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: \_\_\_\_\_

Field Office Manager

Date: \_\_\_\_\_