PMC-EF2a
(2.04.02)

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

RECIPIENT: BAE Systems Electronics, Intelligence & Support **STATE:** VA

PROJECT TITLE : Dynamic Energy Consumption Management of Routing Telecom and Data Centers

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000107	DE-EE0002888	GFO-10-301	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:

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:

This concept definition study will develop a model for Real-Time Optimal Control (RTOC) algorithms designed to shift network power consumption up or down based on the need for services within a data or telecommunications center. By utilizing industry-standard protocols, the control algorithms can control the flow of energy based on network traffic and energy management information that will be reported from network devices in network routers and switches and in computing devices such as mainframes and servers. The key tasks include developing technical requirements, identifying critical algorithm elements, and translating telecom behavior into a control equation for analysis purposes. No manufacturing or laboratory testing will take place during this project. The project will be completed in 1 year.

This research project comprises data analysis and computer modeling; therefore, it qualifies for CX under A9.

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: _____ Date: 3/20/10
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager