

Inspector General

United States
Department of Defense



American Recovery and Reinvestment Act Projects-
"Facility Energy Improvements" and "Wind
Turbine and Photovoltaic Panels"
at Fort Wainwright, Alaska

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Acronyms and Abbreviations

DPW	Directorate of Public Works
DUSD (I&E)	Deputy Under Secretary of Defense (Installations and Environment)
ECIP	Energy Conservation Investment Program
FAR	Federal Acquisition Regulation
FBO	Federal Business Opportunities
IPLC	Intelligent Parking Lot Controller
OMB	Office of Management and Budget
SIR	Savings-to-Investment Ratio
TAFS	Treasury Appropriation Fund Symbol
USACE	United States Army Corps of Engineers



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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March 7, 2011

MEMORANDUM FOR DEPUTY UNDER SECRETARY OF DEFENSE
(INSTALLATIONS AND ENVIRONMENT)
COMMANDING GENERAL, U.S. ARMY CORPS OF
ENGINEERS
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: American Recovery and Reinvestment Act Projects-"Facility Energy Improvements" and "Wind Turbine and Photovoltaic Panels" at Fort Wainwright, Alaska (Report No. D-2011-048)

We are providing this report for your information and use. We determined that personnel at Fort Wainwright Directorate of Public Works and United States Army Corps of Engineers-Alaska District properly planned the "Facility Energy Improvements" project. Army personnel did not ensure that the "Wind Turbine and Photovoltaic Panels" project was adequately planned; however, the Army cancelled the project from the Recovery Act program. We performed this audit in response to the requirements of Public Law 111-5, "American Recovery and Reinvestment Act of 2009" (Recovery Act), February 17, 2009. We considered management comments on a draft of the report in preparing the final report.

Comments on the draft of this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, we do not require additional comments.

We appreciate the courtesies extended to the staff. Please direct questions to Mr. Michael A. Joseph at (757) 872-4698.

A handwritten signature in blue ink, reading "Alice F. Carey", is positioned above the typed name.

Alice F. Carey
Assistant Inspector General
Readiness, Operations, and Support



Results in Brief: American Recovery and Reinvestment Act Projects-“Facility Energy Improvements” and “Wind Turbine and Photovoltaic Panels” at Fort Wainwright, Alaska

What We Did

Our overall objective was to evaluate DoD’s implementation of the “American Recovery and Reinvestment Act of 2009,” February 17, 2009 (Recovery Act). Specifically, we reviewed the planning, funding, initial project execution, and tracking and reporting phases of the two Energy Conservation Investment Program (ECIP) projects, “Facility Energy Improvements” and “Wind Turbine and Photovoltaic Panels” at Fort Wainwright, Fairbanks, Alaska. We determined whether Army personnel complied with the Recovery Act requirements, Office of Management and Budget Memorandum M-09-10, “Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” February 18, 2009, and subsequent related guidance.

What We Found

Fort Wainwright Directorate of Public Works and United States Army Corps of Engineers (USACE)-Alaska District properly planned and supported the “Facility Energy Improvements” project to ensure DoD’s appropriate use of Recovery Act funds. USACE-Alaska District received funds in a timely manner and consistent with Office of Management and Budget guidance. USACE-Alaska District adequately performed initial project execution of the “Facility Energy Improvements” project and properly reduced its scope in order to award the

project. Finally, USACE-Alaska District personnel ensured that the contractor maintained transparency by reporting this project to the www.recovery.gov Web site.

Army personnel did not ensure the “Wind Turbine and Photovoltaic Panels” project was properly planned. This occurred because personnel at Fort Wainwright Directorate of Public Works failed both to include all costs necessary to complete the project and to complete necessary wind studies prior to submitting the project for consideration. However, cancellation of the project from the Recovery Act program and subsequent reprogramming action undertaken by the Army ECIP manager were appropriate. As a result, the Army made \$1.5 million in Recovery Act funds available for other Army Recovery Act ECIP projects.

What We Recommend

Because Recovery Act project “Wind Turbine and Photovoltaic Panels” was cancelled during the audit, this report contains no recommendations.

Management Comments and Our Response

The Director, Facilities Energy, Deputy Under Secretary of Defense (Installations and Environment) agreed with the report and potential monetary benefits of \$1.5 million, and his comments are responsive. No further comments are required.

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Introduction

Objective

Our overall objective was to evaluate DoD's implementation of Public Law 111-5, "American Recovery and Reinvestment Act of 2009," February 17, 2009 (Recovery Act). Specifically, we reviewed the planning, funding, initial project execution, and tracking and reporting phases of Recovery Act Project 69413, "Facility Energy Improvements," and the planning and funding phases of Project 72955, "Wind Turbine and Photovoltaic Panels" at Fort Wainwright, Fairbanks, Alaska. We determined whether the efforts of personnel at the Directorate of Public Works (DPW) at Fort Wainwright and the project execution office at United States Army Corps of Engineers (USACE)-Alaska District complied with the Act's requirements, Office of Management and Budget (OMB) Memorandum M-09-10, "Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009," February 18, 2009, and subsequent related guidance.

The Recovery Act and OMB guidance require projects to be monitored and reviewed. For the purposes of this audit, we grouped these requirements in the following four phases for each project: (1) planning, (2) funding, (3) initial project execution, and (4) tracking and reporting. We did not review the initial project execution and tracking and reporting phases for the "Wind Turbine and Photovoltaic Panels" project because the project did not progress beyond the planning and funding phases. See the appendix for a discussion of our scope and methodology.

Background

In passing the Recovery Act, Congress provided supplemental appropriations to preserve and create jobs; promote economic recovery; assist those most impacted by the recession; provide investments to increase economic efficiency by spurring technological advances in science and health; and invest in transportation, environmental protection, and other infrastructure. The Recovery Act also established unprecedented efforts to ensure the responsible distribution of funds for its purposes and to provide transparency and accountability of expenditures by informing the public of how, when, and where tax dollars were being spent. Further, the Recovery Act states that the President and heads of the Federal departments and agencies were to expend these funds as quickly as possible, consistent with prudent management.

DoD received approximately \$7.16¹ billion in Recovery Act funds for projects that support the Act's purposes. OMB Memorandum M-09-10 required DoD to develop program plans. Included among those programs was the Energy Conservation Investment Program (ECIP).

¹ DoD originally received about \$7.4 billion; however, Public Law 111-226, Title III, "Rescissions," rescinded \$260.5 million on August 10, 2010. The \$7.16 billion does not include \$4.6 billion for the USACE Recovery Act civil works projects.

Energy Conservation Investment Program

The “American Recovery and Reinvestment Act of 2009, Department of Defense Energy Conservation Investment Program Plan,” May 15, 2009, identified projects valued at \$120 million and funded through the “Military Construction-Recovery Act, Defense-Wide” appropriation. The Deputy Under Secretary of Defense (Installations and Environment) (DUSD (I&E)) centrally controls ECIP funding allocation on a project-by-project basis. DoD personnel allocated \$32.4 million for Army Recovery Act ECIP projects, which included \$2.19 million in planning and design funds to support the Army Recovery Act ECIP projects. Of the \$32.4 million, DoD personnel allocated \$1.95 million to Project 69413, “Facility Energy Improvements,” and \$1.5 million to Project 72955, “Wind Turbine and Photovoltaic Panels.”

The DoD Energy Managers Handbook defines a savings-to-investment ratio (SIR) as a measure of a project’s economic performance. The SIR, a benefit-to-cost ratio in which the benefits are primarily savings, expresses the relationship between the present value of the savings over a study period to the present value of the investment costs. The SIR is a useful means of ranking independent projects to guide allocations for limited investment funding. According to the DoD Energy Managers Handbook, if a project’s SIR is 1.0 or higher, the project is cost-effective.

The Recovery Act DoD ECIP Plan stated that the program historically averages more than two dollars in life-cycle savings for every dollar invested. The Office of the Assistant Secretary of Defense (Production and Logistics), “Energy Conservation Investment Program Guidance,” March 17, 1993, states, “Projects must have a SIR greater than 1.25 and a discounted payback period² of 10 years or less.”

Recovery Act Projects for Fort Wainwright Energy Conservation Investment Program

Fort Wainwright originated as a cold weather test station and is now home to “America’s Arctic Warriors,” the Army’s Northern Warfare Training Center. Project 69413, “Facility Energy Improvements,” included installing intelligent parking lot controller³ (IPLC) devices on 4,450 headbolt outlets⁴ in parking lots throughout Fort Wainwright and replacing lighting and ballasts in the vehicle maintenance facility, Building 3015, with fluorescent lights and fixtures with motion sensors. For the purposes of this audit, we will refer to Project 69413 as the IPLC project.

Black Rapids Training Center (the Center) is a remote location approximately 130 miles from Fort Wainwright. The Center offers arctic, subarctic, and mountain training environments. Project 72955, “Wind Turbine and Photovoltaic Panels,” included the

² The discounted payback period expresses results in time to recover investment costs. Savings are discounted to their present value based on the discount rate.

³ An IPLC is a smart power receptacle that measures temperature and wind chill and can be programmed to automatically regulate the power flow to the receptacle to reduce electrical consumption.

⁴ Headbolt outlets are the receptacles used to plug in vehicle engine heaters in parking lots.

installation of a wind turbine generator and photovoltaic panels to supply electricity at the Center and the installation of transpired solar preheat panels on vehicle maintenance facilities at Fort Wainwright. For the purposes of this audit, we will refer to Project 72955 as the wind turbine project.

United States Army Corps of Engineers-Alaska District

The USACE-Alaska District supported Fort Wainwright by providing services for contracting and project management. These services included awarding contracts for Recovery Act-funded projects and assigning project managers to oversee the contracted work.

Review of Internal Controls

DoD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010, requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance programs are operating as intended and to evaluate the effectiveness of the controls. We identified no internal control weaknesses in the IPLC project but did identify an internal control weakness as defined by DoD Instruction 5010.40 in the administration of the wind turbine project. Specifically, the Army did not provide adequate internal controls over the planning efforts for the wind turbine project. We discuss these issues in detail in the Audit Results section on page 7. Because the Army cancelled the wind turbine project, no recommendation is necessary to correct this weakness. We will provide a copy of the report to the senior officials responsible for internal controls at the Army and at the DUSD (I&E) Energy office.

Audit Results for the Intelligent Parking Lot Controller Project

Personnel at Fort Wainwright DPW and USACE-Alaska District ensured that the IPLC project was properly planned and supported, and USACE-Alaska District personnel received and applied Recovery Act funds for the project in accordance with OMB guidance. Additionally, USACE-Alaska District personnel ensured that the contracting actions for the IPLC project met Recovery Act requirements. Finally, personnel from the USACE-Alaska District ensured that the contractor maintained transparency by reporting this project to the www.recovery.gov Web site. As a result, DoD ensured that the use of Recovery Act funds for the IPLC project was justified and clear and transparent to the public.

Project Properly Planned and Supported

Personnel at Fort Wainwright DPW and USACE-Alaska District properly planned the IPLC project and were able to provide supporting documentation for the project costs. Documentation supporting costs dated back to 2006 and was updated annually. Documentation included professional engineering opinions about the project, utility rates at Fort Wainwright, and vendor costing input. In April 2009, Fort Wainwright DPW personnel transferred management of the IPLC project to the USACE-Alaska District. During their review of the IPLC project, USACE-Alaska District engineers identified

Personnel at Fort Wainwright DPW and USACE-Alaska District properly planned the IPLC project and were able to provide supporting documentation for the project costs.

deficiencies in the plans to apply and install the IPLCs. Engineers at the USACE-Alaska District worked with personnel at the Fort Wainwright DPW to prioritize, validate, and allocate the number and location of the IPLCs to each parking lot; resolve the installation method unique to each location; and add requirements to install electrical grounding mechanisms to each headbolt outlet. As a result, engineers revalidated the number and location of IPLCs and recalculated the costs to include the additional installation requirements.

Recovery Act Funds Received Timely

Personnel at the USACE-Alaska District received funds from the Office of the Under Secretary of Defense (Comptroller) personnel in a timely fashion and in compliance with OMB guidance. For the IPLC project, USACE-Alaska District received \$166,425 of the available \$2.19 million allocated to “Planning & Design-Army ECIP projects” and cited in the DoD ECIP Plan. Funding documents showed Comptroller personnel also transferred \$1.88 million in Recovery Act funds for construction to USACE-Alaska District in October 2009. USACE-Alaska District contracting personnel obligated \$1.88 million to the project, which included \$1.74 million for contract award and \$0.14 million for supervision, inspection and overhead costs. Contracting personnel awarded contract W911KB-10-P-0001 on October 30, 2009. The DoD ECIP Plan

initially listed the project at \$1.95 million, which allowed approximately \$70,000 (\$1.95 million minus \$1.88 million) in potential bid savings. The Army ECIP program manager and personnel from DUSD (I&E) are reallocating unused funds to other Recovery Act ECIP projects. Finally, all funding documents properly cited Treasury Appropriation Fund Symbol (TAFS) 97 0501, “Military Construction-Recovery Act, Defense-Wide” appropriation.

Initial Project Execution Adequate

USACE-Alaska District personnel adequately performed initial project execution of the IPLC project and properly reduced its scope in order to award the IPLC project. Although the contract included only some of the required Recovery Act Federal Acquisition Regulation (FAR) clauses, USACE-Alaska District contracting personnel provided justification to support why certain other clauses did not apply.

Reduced Project Scope

Personnel at USACE-Alaska District awarded the IPLC project at a reduced scope, and they adequately performed the project’s initial execution. To award the project, USACE-Alaska District engineers segmented the Fort Wainwright parking lots into specific map locations, including various numbers of IPLCs at each location. They prioritized each location and allocated the work into six options for IPLCs and one option for lighting replacement. Contracting personnel competitively solicited the project at the Federal Business Opportunities (FBO) Web site, but when all of the proposals received were higher than the programmed project amount cited in the DoD ECIP Plan, contracting personnel restructured the acquisition strategy; they reallocated the number of IPLCs to include eight options, as well as one option for the lighting replacement project. USACE personnel properly posted the cancellation of the initial IPLC project requirements, the project re-solicitation, and the contract award to the FBO Web site, and all FBO postings properly identified the project as “Recovery.”

On October 30, 2009, USACE-Alaska District contracting personnel awarded the IPLC project competitively on contract W911KB-10-P-0001 at a firm-fixed-price to TLC General, Inc. TLC General, Inc. is a certified hub-zone small business and, based on information from the Central Contractor Registration Web site, TLC General, Inc. was properly registered and was not listed in the Excluded Parties List System. As awarded, the project required installation of 4,028 IPLCs instead of the original 4,450 IPLCs, and contracting personnel awarded no lighting replacement option.

Adequately Documented Justifications For Omitting Certain Recovery Act Federal Acquisition Regulation Clauses

The IPLC contract included the applicable Recovery Act FAR clauses, and USACE-Alaska District contracting personnel provided justification to support the exclusion of the Buy American and Davis-Bacon Act clauses. Contracting personnel conducted market research through two separate FBO postings and determined that the only manufacturer of the IPLCs that met project requirements was a Canadian company. To support exclusion of the Buy American clause, contracting personnel included a

justification packet citing the research supporting the Canadian supplier and FAR Clause 6.302-1, which states, “Only one responsible source and no other supplies or services will satisfy agency requirements.”

Additionally, contracting personnel deemed that the Recovery Act Davis-Bacon clause was not required in the IPLC contract because it did not apply to the task of installing IPLCs. In the project files, contracting personnel justified and documented why the IPLC installations were a contractor-provided service and not a “construction type activity.” The justification cited FAR 37.101, which defines a service contract as a “contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply,” and FAR 2.101, in which construction is defined as “construction, alteration, or repair ... of buildings, structures, or real property.” The Davis-Bacon Act clause discusses how contracts in which the “U.S. is a party for construction, alteration, or repair of public buildings or public works within the United States shall contain a clause that ... no employee ... shall receive less than the prevailing wage rates.” Because IPLC installation is an identifiable task, USACE personnel determined that the Recovery Act service contract clauses should apply rather than the Recovery Act Davis-Bacon clauses. In addition to citing the service contract clauses in the IPLC contract, USACE personnel included the wages for service contracts in Alaska with the contract.

Contractor Reported Required Information

The contractor, TLC General, Inc., reported the required recipient Recovery Act information. TLC General, Inc. reported the number of jobs, a description of quarterly project activities, and the total award dollar value for the project to www.recovery.gov as required by FAR 52.204-11 and correctly reported the TAFS code as 97 0501, “Military Construction-Recovery Act, Defense-Wide.”

Conclusion: Use of Recovery Act Funds Justified

Personnel at Fort Wainwright DPW and USACE-Alaska District ensured that the Recovery Act-funded IPLC project was properly planned, and USACE personnel received and applied Recovery Act funds in a manner consistent with OMB guidance. Additionally, USACE personnel ensured that contracting actions for the IPLC project met Recovery Act requirements. Finally, USACE personnel ensured that the contractor maintained transparency by reporting this project to the www.recovery.gov Web site. As a result, DoD ensured that the use of Recovery Act funds for the IPLC project was justified, clear, and transparent to the public.

Audit Results for the Wind Turbine Project

Army personnel originally did not ensure that the wind turbine project was adequately planned. This occurred because personnel at Fort Wainwright DPW failed both to include all costs necessary to complete the project and to complete necessary wind studies prior to submitting the project for consideration. As a result, DoD could not ensure the wind turbine project was viable, and Recovery Act funds would be appropriately used. By cancelling the project from the Recovery Act program, the Army made \$1.5 million in Recovery Act funds available for other Recovery Act ECIP projects. Finally, USACE-Alaska District received Recovery Act funds for the project in accordance with OMB guidance.

Project Not Adequately Planned

Army personnel did not ensure that the wind turbine project was adequately planned to meet the SIR and payback criteria defined in the Recovery Act DoD ECIP Plan and did not ensure the completion of wind studies before submitting DD Form 1391, "Military Construction Project Data." Personnel at Fort Wainwright DPW originally planned for the wind turbine project to be executed using in-house resources in FY 2010. When the project was selected to receive Recovery Act funding, however, the Army accelerated execution from FY 2010 to FY 2009. Additionally, the Army required USACE-Alaska District to assume responsibilities for project execution.

Escalating Costs Impacted Project Scope, Savings-to-Investment Ratio, and Payback Period

Personnel from the Fort Wainwright DPW provided a DD Form 1391, May 7, 2009, for the installation of a wind turbine and photovoltaic panels at the Center, as well as for installation of transpired solar preheat panels at Fort Wainwright. They estimated project costs at \$1.5 million with a SIR of 2.0 and a payback period of 6.8 years.

Although engineers at the Fort Wainwright DPW provided some documentation to support the project, USACE-Alaska District personnel stated that the cost estimates were incomplete, and personnel at the Fort Wainwright DPW did not consider all the costs necessary to complete the project. To prepare the project for solicitation and award, engineers at the USACE-Alaska District recreated and further refined project costs necessary to complete the project. In a September 23, 2009 estimate, engineers and contracting personnel deleted the transpired solar preheat panels from the project and estimated completion of the wind turbine and photovoltaic panels at a cost of \$4.4 million, \$2.9 million above the original \$1.5 million cost estimate.

In a September 23, 2009 estimate, engineers and contracting personnel deleted the transpired solar preheat panels from the project and estimated completion of the wind turbine and photovoltaic panels at a cost of \$4.4 million, \$2.9 million above the original \$1.5 million cost estimate.

The Office of the Assistant Secretary of Defense (Production and Logistics), “Energy Conservation Investment Program Guidance,” March 17, 1993, states “Projects must have a SIR greater than 1.25 and a discounted payback period of 10 years or less” and that “Military Departments should revalidate all projects prior to advertising to ensure contemplated benefits will still accrue.” Although the engineers at the USACE-Alaska District refined and revalidated the project requirements and costs prior to advertising, Fort Wainwright DPW personnel were unable to provide revised SIR and life-cycle-cost calculations. Due to the change in project scope, and escalating project costs, DoD cannot ensure that payback periods and SIR calculations on the DD Form 1391 are accurate and reliable or whether Army personnel appropriately selected the project for Recovery Act funding.

Wind Study Not Performed Prior to Project Submission

Fort Wainwright DPW personnel did not ensure completion of a wind study before submitting the DD Form 1391 for the project. The Center is located in an area with mountains and valleys that could create enough wind turbulence to shut down a wind turbine. USACE-Alaska District personnel stated that the industry standard was to conduct a 1-year wind study to determine the best physical location for the wind turbine. The study would also determine whether sufficient, consistent, and non-turbulent winds were available to power the turbine.

Additionally, in 2008, the U.S. Army Installation and Management Command directed Pacific Northwest National Laboratories to identify economically feasible opportunities to generate electricity from renewable sources—that is, generation significant enough to warrant connection to the grid or to contribute meaningfully to the Army’s aggressive goals for renewable energy. As part of the “Renewable Energy Opportunities at Fort Wainwright and Fort Greely, Alaska” study, Pacific Northwest National Laboratories was to designate steps for implementing the project at the Center. The study specifically identified a significant wind resource at the Center, one warranting further investigation into the possibility of developing on-site wind power projects. Because of variations in wind resources at the Center, the study recommends developing wind monitoring plans to verify site-specific resources for project implementation. Moreover, the study specifically identifies a 60-meter meteorological tower as the industry standard for collecting data for a commercial-scale project. The meteorological tower is the most accurate predictor of wind potential and, therefore, the best source for data. The findings also stated that the period for gathering wind data should be, at a minimum, 1 year in order to determine the true viability of the wind resource on site. The study’s findings were available to the Army in draft format in March 2009, in time for incorporation into the wind turbine project.

In September 2009, we discussed the absence of a wind study and its impact on the feasibility of the project with Army personnel at Fort Wainwright DPW and USACE-Alaska District. Additionally, in December 2009 and January 2010, the Army ECIP manager and DUSD (I&E) personnel stated that they had expected a wind study to be completed before receiving the DD Form 1391 project packages and were unaware this was not the case for the wind turbine project. Given the Arctic conditions and probable

wind turbulence at this location, a wind study is critical to ensure project viability. Moreover, data from wind studies is helpful in calculating the expected overall energy savings, thus influencing the SIR and payback period calculations for the wind turbine project.

Cancellation of Wind Turbine Project

In February 2010, the Army ECIP manager initiated cancellation of the \$1.5 million wind turbine project from the Recovery Act program. The reprogramming documentation cited that the project could not be awarded because wind studies would not be completed in a timely manner. As part of their reprogramming action, Army officials identified additional ECIP projects eligible for Recovery Act funding. The reprogramming action was consistent with Office of the Under Secretary of Defense (Comptroller), “Project Cost Variations during Execution of American Recovery and Reinvestment Act Expenditure Plans for Infrastructure Investments,” May 7, 2009, and “Revision to Policy Regarding Project Cost Variations during Execution of American Recovery and Reinvestment Act Expenditure Plans for Infrastructure Investments,” January 11, 2010.

Recovery Act Funds Received Timely

Personnel at the USACE-Alaska District received funds for the wind turbine project from the Office of the Under Secretary of Defense (Comptroller) personnel in a timely fashion and in compliance with OMB guidance. This wind turbine project received \$171,000 of the \$2.19 million allocated to “Planning & Design-Army ECIP projects” cited in the Recovery Act DoD ECIP Plan. USACE-Alaska District personnel received these funds through three funding authorization documents that properly identified a Recovery Act designation. These documents correctly cited TAFS 97 0501, “Military Construction-Recovery Act, Defense-Wide” appropriation. USACE-Alaska personnel never received construction funds to execute the project.

Conclusion: Use of Recovery Act Funds Not Justified, However, Army Personnel Cancelled the Project

Because Army personnel did not ensure the wind turbine project was properly planned, cancellation of the project and subsequent reprogramming action undertaken by the Army ECIP manager were appropriate. The Army made approximately \$1.5 million in Recovery Act funds available for other Recovery Act ECIP projects. Because the Army cancelled this project from using Recovery Act funds, we have no recommendations.

...cancellation of the project and subsequent reprogramming action undertaken by the Army ECIP manager were appropriate.

Management Comments on the Potential Monetary Benefits and Our Response

The report made no recommendations; however, we requested comments from the DUSD (I&E) who manages the DoD ECIP program on the potential monetary benefits of \$1.5 million derived from cancelling the wind turbine project.

Deputy Under Secretary of Defense (Installations and Environment)

The Director, Facilities Energy, DUSD (I&E), agreed with the report, and potential monetary benefits of \$1.5 million.

Our Response

The DUSD (I&E) comments are responsive. Therefore, we do not require additional comments.

Appendix. Scope and Methodology

We conducted this audit from August 2009 through December 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The overall objective was to evaluate DoD's implementation of plans for the Recovery Act. To accomplish our objective, we audited the planning, funding, initial project execution, and tracking and reporting of two Recovery Act ECIP projects at Fort Wainwright to include the planning and design funds allocated to the projects. Specifically, we determined whether:

- the selected projects were adequately planned to ensure the appropriate use of Recovery Act funds (Planning);
- funds were awarded and distributed in a prompt, fair, and reasonable manner (Funding);
- contracts awarded were transparent, competed, and contained required Recovery Act FAR clauses (Initial Project Execution); and
- recipients' use of funds was transparent to the public and the benefits of the funds were clearly, accurately, and timely reported (Reporting).

We did not review the initial project execution and tracking and reporting phases for the wind turbine project because the project was cancelled from the Recovery Act program and did not progress beyond the planning and funding phases.

We interviewed personnel from the Fort Wainwright DPW, USACE-Alaska District, Army ECIP office, and DUSD (I&E). We reviewed documentation including the official contract files and the DD Forms 1391 for project requirements, justification, cost estimate support, environmental analysis, and historical data that provided costing support. We reviewed Federal, DoD, and Army guidance and compared this with our audit results. Although we determined if the contractor reported in accordance with FAR 52.204-11, we did not validate the data reported by the contractor to the www.Recovery.gov Web site at this time. We plan to address the adequacy of recipient reporting in a future DoD OIG report.

Use of Computer-Processed Data

We relied on computer-processed data from the FBO Web site and the Corps of Engineers Financial Management System. FBO is a single, Government-wide point-of-entry for Federal Government procurement opportunities. The Corps of Engineers Financial Management System is USACE's corporate Web-based automated information system for managing and transacting financial and accounting business processes. We compared data generated by each system with the DoD Expenditure Plans, funding

authorization documents, project documentation, and contracting documentation to support the audit conclusions. We determined that the data were sufficiently reliable for our audit purposes.

Use of Technical Assistance

Before selecting DoD Recovery Act projects for audit, the Quantitative Methods and Analysis Division of the DoD Office of Inspector General analyzed all DoD agency-funded projects, locations, and contracting oversight organizations to assess the risk of waste, fraud, and abuse associated with each. Quantitative Methods and Analysis Division personnel selected most audit projects and locations using a modified Delphi technique, which allowed them to quantify the risk based on expert auditor judgment, and other quantitatively developed risk indicators. They used information collected from all projects to update and improve the risk assessment model. Quantitative Methods and Analysis Division personnel initially selected 83 projects with the highest risk rankings with auditors choosing some additional projects at the selected locations. We judgmentally selected the two ECIP projects at Fort Wainwright to provide additional project coverage across the Recovery Act ECIP program.

Quantitative Methods and Analysis Division personnel did not use classical statistical sampling techniques that would permit generalizing results to the total population because there were too many potential variables with unknown parameters at the beginning of this analysis. The predictive analytic techniques employed provided a basis for logical coverage of Recovery Act dollars being expended, but also of types of projects and types of locations across the Military Services, Defense agencies, State National Guard units, and public works managed by the U.S. Army Corps of Engineers.

Prior Coverage

The Government Accountability Office, the Department of Defense Inspector General, and the Military Departments have issued reports and memoranda discussing DoD projects funded by the Recovery Act. You can access unrestricted reports at <http://www.recovery.gov/accountability>.

Office of the Deputy Under Secretary of Defense (Installations and Environment) Comments



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

JAN 13 2011

Dear [REDACTED]

This letter provides the Office of the Deputy Under Secretary of Defense (Installations and Environment) response to the draft Inspector General report, Project No. D2009-D000LF-0245.002, "American Recovery and Reinvestment Act Projects-'Facility Energy Improvements' and 'Wind Turbine and Photovoltaic Panels' at Fort Wainwright, Alaska," dated December 6, 2010. We concur with the overall report and have no additional comments. The report correctly identifies that by canceling the wind and photovoltaic panels project at Fort Wainwright, \$1.5 million is available for beneficial use elsewhere within the ECIP program subject to OMB and DoD Recovery Act guidance.

I appreciate the opportunity to respond to your draft report and look forward to working with you in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "J K Sikes".

Joseph K. Sikes
Director
Facilities Energy



Inspector General Department of Defense