



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Indian Health Service  
Rockville MD 20852

November 17, 2006

TO: Deputy Assistant Secretary  
Office for Facilities Management and Policy

FROM: Director  
Division of Facilities Operations

SUBJECT: FY 2006 Energy Report

I am responding to your October 3, 2006 memorandum requesting the FY-2006 Energy Report.

Per your direction, these reports are being sent electronically to Mr. Scott Waldman, Department of Health and Human Services Energy Officer. The reports are organized in the following manner:

- I. IHS Annual Energy Narrative Report
  - A. FY-2006 OPDIV Energy Management Data Report
  - B. FY-2006 OPDIV Energy Scorecard
  - C. FY-2006 OPDIV FY-2003 Energy Consumption Baselines
  - D. FY-2006 OPDIV Industrial and Laboratory Facilities Inventory
  - E. FY-2006 OPDIV Exempt Facilities Inventory
- II. IHS Annual Energy Implementation Plan

If you have any questions regarding the reports, please contact CDR Gordon Delchamps, P.E., Office of Environmental Health and Engineering, at (301) 443-1367.

/ James R. Biasco /

James R. Biasco P.E.  
Director, Division of Facilities Operations

# *IHS Annual Energy Narrative Report*

## **I. Management and Administration.**

### **A. Energy Management Infrastructure**

#### **1. Senior OPDIV Energy Official**

The senior Agency Official is the Director, Division of Facilities Operations. This person supervises the Agency's Energy Coordinator. The Agency Energy Team consists of 12 Area Offices (Aberdeen, Albuquerque, Alaska, Bemidji, Billings, California, Nashville, Navajo, Oklahoma, Portland, Phoenix, Tucson) and 2 Regional Offices (Engineering Service (ES) in Dallas and Seattle). The 12 Area Offices and 2 Engineering Services Offices each have a designated Energy Coordinator who is supervised by the Area Facility Engineers or ES Directors.

Area	Energy Coordinator
Aberdeen	Monica Macek
Albuquerque	Deanne Waconda
Alaska	Gary Kuhn
Bemidji	Victor Mosser
Billings	Robert Biddle
California	Phil Church
ES-Dallas	Suresh Shah
ES-Seattle	Pedro Valverde
Headquarters	Gordon Delchamps
Nashville	George Styer
Navajo	Nate Morris
Oklahoma	Ken McKenzie
Phoenix	George Stevens
Portland	Mathew Martinson
Tucson	Bob Drummond

#### **2. OPDIV Centralized Energy Program**

**Aberdeen:** The Area Office collects energy reports from each Service Unit on a quarterly basis. The Area Office provides annual updates on energy information reporting. An energy team does not exist.

**Alaska:** Alaska employs an Area energy coordinator to collect and report data to the Tribal Health Organizations (THO's) and IHS Headquarters. The coordinator seeks energy saving program and project opportunities and works directly with the THO Facility Managers to implement energy conservation measures and training. The Alaska Area has concluded six energy audits out of the seven hospital campuses serving Alaska Natives and American Indians in Alaska. These six audits identified \$2,400,000 in Energy Conservation Measures (ECM's) that could potentially save \$588,000 dollars annually. The Alaska Area has continued to accomplish Energy Conservation Measures (ECM's) this year including the mid-summer commissioning of a ground water cooling system at ANMC in Anchorage. The MIRAC determined that funding for completion of energy audits will now be up to the individual THO's and not necessarily funded through the M&I funding sources. The collective magnitude of cost needed to address energy needs, approximately \$2.4 million reported last year for the audited hospitals, is now required to be sought outside of the IHS M&I Project Pool, or at least supplemented. But of course this does not address all healthcare facilities, but only a fraction of them in Alaska. To a large degree, the ECM's we continue to implement just offset the major increase energy requirements for providing the proper patient

**Albuquerque:** The Area Energy Management Program is coordinated through the designated Area Energy Coordinator under the supervision of the Area Health Facilities Director. The Energy Coordinator is responsible for preparing all reports, maintaining the area utility database, and coordinating project and activities with the Service Unit Facility Engineers/Managers. The Service Unit Facility Engineers/Managers are responsible for managing their energy consumption. Service unit projects are coordinated with the area

**Bemidji:** Bemidji Area Facility Engineer responsible for entering data compiled by Facility Managers at Red Lake, White Earth, and Cass Lake.

**Billings:** Burke Helmer, P.E., CFM, Energy Coordinator, compiles total dollars spent through WebFRS for each utility in the Billings Area. Average utility rates from the 2006 Consumer Price Index for the Montana/Idaho Region are used to calculate the Area's utility usage. These are the numbers that are reported to Headquarters. Obtaining direct utility data and costs for each building is currently too time prohibitive, but the Area Office tracks actual utility usage for our 12 major healthcare facilities in Montana

and Wyoming. In addition, we have actively been modifying the automated building control systems to optimize energy efficiency at those buildings as well as been making operational recommendations to the facility staff. This includes commissioning and test & balancing of the HVAC building systems. Informal

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: The Navajo Area has established an Area Core Energy (ACE) Managers team. Also, each service unit has it's own Energy coordinator, and team. Information from the ACE team relays information to the Energy Coordinator and with the help of the Energy Coordinator team to distribute to each of their own facility. The energy coordinator responsibility is to relay any information to their respective service unit. Also, gather utility information for report to HQ. ACE member include. Nathaniel Morris, Orson Quoshena, Ricardo Murga, and Jonathan Flannery. Energy Coordinators include, Jerry Mendoza, Paul Denetclaw,

Oklahoma City: The structure of the Area's centralized energy program consisted of the Energy Coordinator at the Area Office and facility engineers and facility managers at hospitals and health centers. Efforts were coordinated and facilitated via site visits to hospitals and health centers and discussions with facility engineers and facility managers. Most information was disseminated via e-mail. Posters, key rings, and note pads from FEMP's 2006 Awareness Month theme "Energy Independence Depends of Us - Choose Wisely, Use Wisely", have been distributed to facility engineers and facility managers at hospitals and health centers. Training from EMC Engineers Inc., which was sponsored by DHHS and coordinated by the IHS EHSC, was conducted at the Oklahoma City Area Office in October of 2006. An Energy Team does exist in the Oklahoma City Area IHS and the members of the team include 3 engineers and 1 architect at the Area Office along with facility engineers and facility managers at hospitals and health centers. The team's responsibilities include doing everything they can do within allotted time and resources to reduce the consumption and cost of electricity, natural gas, and water. Thirty-two "save energy magnets" were given to children for the "Bring Your Daughter and Son to Work Day Event" at the Oklahoma City Area

Phoenix: The Phoenix Area does not have a centralized energy program in the strict sense. All of our service units are autonomous in their selection and use of utilities, as they are in any other program within IHS. The Energy Coordinator does correspond with all facilities managers with current energy saving ideas, and consults with them as desired for utilities issues. The Energy promotion material is mailed out and shared with all customers. Information dissemination is accomplished primarily by email, or face to face meetings on site during consultations. Energy and utility usage is shared, and trending is recognized. New plan review will include a review for energy efficient design and practices.

Portland: In FY2006, energy functions focused on the essential activities of data collection and assimilation. The primary means of information collection and energy initiative education is through the Area Workshop and program reviews by the Area Office in the field. The goal for the Area is to continue to implement cost-effective Energy Conservation Measures to reduce energy consumption and exceed E.O. 13123 FY-2010 goals. As energy costs increase, each dollar conserved is one dollar available for health care services.

In order to meet this goal, the Portland Area has established:

- Prioritization of surveys for all facilities.
- Annual comprehensive audits at 10% of all owned or leased facilities. Audits will have been completed at all Portland Area facilities in accordance with Executive Order 12902.
- Actions to implement economical audit recommendations within 180 days of audit completion.

Tucson: The Energy Management Officer works under the direct supervision of the Area Facilities Engineer. Efforts are coordinated thru periodic meetings with the Facility Managers. Throughout the year, awareness emails and flyers were broadcast Area-wide in an attempt to reduce energy and water

## **B. Management Tools**

### **1. Awards (Employee Incentive Programs)**

HHS Individual Energy and Water Management Award

Ken McKenzie, General Engineer, Oklahoma City Area Office

Ken McKenzie installed a new energy and water efficient medical vacuum system at the W.W. Hastings Indian Medical Center in Tahlequah, Oklahoma. The new vacuum system does not utilize water as a cooling source and is estimated to save 3.28 million liters of water each year, with a monetary savings of \$1456. As opposed to the older system, the new system requires virtually no maintenance, saving additional facility costs. Due to the success of the project, efforts are underway to install a similar system at another medical center in Oklahoma.

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HHS Small Group Energy and Water Management Award

White Earth Health Center, Ogema, Minnesota  
Mike Bray, Plumber  
Doug Darco, Maintenance Mechanic  
Pete Fairbanks, Carpenter  
Paulette Halvorson, Secretary  
Al Leff, Master Electrician  
John McArthur, Chief Executive Officer  
Todd Scofield, P.E., Facility Engineer

In one year, the White Earth Health Center Energy Project Team successfully developed, funded, designed, and constructed a new energy conservation diesel generator. Previously, the White Earth Health Center, located in Ogema, Minnesota, was solely dependent on electrical power. Faced with the ending of a grant that paid for utility costs, the Energy Project Team conducted an in-house feasibility study to determine a cost-effective alternative source of power. Based on the feasibility study, the Team determined a diesel generator to be the most energy efficient and cost effective option. A 1,500 kilo-Watt diesel generator, 19,000 liter fuel reservoir, housing, transfer switches, electrical controls, fire suppression system, and all associated appurtenances were installed at a cost of \$375,000, yielding an expected payback of less than five years.

The design and project management of the construction was conducted in-house, resulting in significant cost savings. Additionally, the Team successfully completed the generator installation in one-third of the time usually required for such a project. In 2005, the project saved the health center \$43,000 in utility operation costs, resulting in anticipated savings of over \$1 million over the life of the generator. The

- Aberdeen: Employee incentive programs do not exist. The Area Office is formulating a process for distributing energy reserve funds based on energy management efforts.
- Alaska: The Area did not provide a response to this question.
- Albuquerque: Departmental awards, the Annual Area Director's Awards Program, and Certificates of Appreciation are used to recognize individuals and/or programs instrumental in improving energy efficiency and implementing energy projects. An energy component has been included in designated employees
- Bemidji: Bemidji Area did not distribute awards for energy during 2006.
- Billings: The Billings Area Office has continued with the Energy Awards Program open to all employees within the Billings Area. The program has four different award categories that either an individual or a group of individuals can submit a project for. Three of the awards are cash awards and the fourth is a Service Unit Award that can receive \$25,000 of M/I money to supplement their facility program. All potential award nominations are submitted to the Area Office for review by a registered engineer and must have a payback of three or less. The projects must then be initiated by the Service Unit with cooperation by the Area Office.  
Nominations for the annual HHS Energy and Water Management Awards and DOE's Federal Energy
- California: There are no Federally-owned facilities in this Area.
- Nashville: The Area did not provide a response to this question.
- Navajo: No incentive programs were implemented during fiscal year
- Oklahoma City: An OKC Area Office engineer received a 2005 HHS Energy and Water Management Award in FY2006. A nomination from the OKC Area IHS was submitted for a DOE Federal Energy Management Award. The Network Administrator for the OKC Area received an Employee of the Quarter Award in 2006 for his work in installing and activating the ENERGY STAR EZ Save program for computer monitors at 100% of the Oklahoma City Area IHS "D1" sites. The calculated savings realized by enabling monitor power management (using the figures from EZSave Calculator and an assumption that 50% of the 2,283 computer monitors were already power-management-enabled and with the target of 100% compliance and no machines turned off at night/weekends) the savings was estimated to be \$45,396 per year.
- Phoenix: The Phoenix Area currently has no unique employee incentive program to reward exceptional performance in implementing Executive Order 13123. We rely on Commissioned Corps or Civilian Personnel standard awards programs for exceptional performance.
- Portland: In Fiscal Year 2006, Yakama Service Unit was nominated for the Energy Efficiency/Energy Management award, but was not selected.
- Tucson: The Sells Hospital was awarded.

## 2. Performance Evaluations

- Aberdeen: Energy management was not a performance element in FY 2006.
- Alaska: The Area did not provide a response to this question.
- Albuquerque: Responsibility of the energy program is included in the performance evaluations of the Area Office Mechanical Engineer. A component has also been added to the Facility Engineers duties.
- Bemidji: Energy management and reporting is included in position description of Assistant Area Facility Engineer for the Bemidji Area.
- Billings: The Deputy Director of Facilities Management currently has the responsibility of Energy Coordinator and all the duties associated with it. Their performance tied those duties are evaluated by the Director of Facilities Management during his/her annual review.
- California: There are no Federally-owned facilities in this Area.
- Nashville: The Area did not provide a response to this question.
- Navajo: During our Energy conference call meetings. It was clear that Each service unit establish a energy team, heading that team is a energy coordinator that will represent each of the facility. Each Energy Coordinator was to gather information from Finance department and compile their utility usage. As one of the four Area Core Energy Manager, we would help with any questions that the Coordinators
- Oklahoma City: The Energy Coordinator had energy conservation in his performance evaluation.
- Phoenix: N/A
- Portland: In Fiscal Year 2006, the Department of Health and Human Services required that Departmental Objectives be cascaded into individual work plans. Facility managers likely had elements related to facility efficiency in their evaluation elements.
- Tucson: Energy conservation elements are included in the position descriptions for facility/energy/project

## 3. Training and Education

- Aberdeen: Training has been provided on completing the new Area Energy Reporting Form in FY 2006.
- Alaska: Federal Energy Management Program Operations & Maintenance Management Workshop training was provided to 24 maintenance personnel throughout the state. This training focused on the increased awareness of the importance of O&M technologies, and O&M related equipment improvements. The major point of the training was keeping equipment operating at peak efficiency. Throughout the training it was discussed how even a 5% drop in efficiency can cause a significant increase in energy utilization. 24 people were trained at a cost of \$15,000. Energy Savings promotional material supplied by DOE is
- Albuquerque: Training opportunities are made available to all health facilities staff. Maintenance employees attended various DDC, electrical, mechanical, and plumbing courses throughout the year. The courses were offered by local utility providers, corporations, and government agencies. A major local utility provider continues to offer training through their Energy Academy Program. Several staff also attended the HHS energy
- Bemidji: Energy training opportunities are announced to staff. Department of Energy on-line training has been
- Billings: Training is available to all service unit facilities staff for the control and operation of building HVAC systems. Training is provided through the National Environmental Health Support Center in addition to the numerous third-party training courses available nationally. The Area Energy Coordinator attended an on-line DHHS Energy Course and four Blackfeet facilities personnel attended a Johnson Controls training course on their energy management building control
- California: There are no Federally-owned facilities in this Area.
- Nashville: The Area did not provide a response to this question.
- Navajo: Three of the four Area Core Energy Managers attended the Energy 2006 Expo held in Chicago. Currently the Area Core Energy Team is working on it's own training on previous E.O's and implementation. The Energy conference will educate energy coordinators on the material and E.O's.
- Oklahoma City: Two engineers from the Oklahoma City Area Office attended Energy 2006 in August. The Area Energy Coordinator listened to the training session webcast (a method of conveying information without travel time and expense) from Oak Ridge National Laboratory on the Steam System Scoping Tool
- Phoenix: The current energy coordinator for the Phoenix Area has taken all of the course work and passed the exam for the designation of Certified Energy Manager. Additional training will be attended as funds allow.
- Portland: FY 2006 training took place during the Portland Area Indian Health Service annual workshop. This is a venue which all facility managers attend.

Tucson: None to report.

#### **4. Showcase Facilities**

Aberdeen: New facilities in the Aberdeen Area are Winnebago and Sisseton.

Alaska: The Area did not provide a response to this question.

Albuquerque: No facilities to report that meet the requirements.

Bemidji: White Earth Health Center utilizes a generator to power facility during peak loading and is total digital

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: N/A. Information will be given to enter each facility into the Energy Star Website during the Navajo Area Energy conference.

Oklahoma City: A looming exemplary new facility that HHS should consider for a DOE Federal Energy Saver Showcase Facilities in the next Fiscal Year is the Expansion project at the Lawton Indian Hospital because LEED Silver certification is being sought and this will be the first IHS facility that has sought and will hopefully obtain LEED certification.

The new Clinton Indian Health Center design used natural vegetation from northwest Oklahoma in lieu of irrigation and the directional orientation of the building elements and the use of natural lighting was also included during the design and construction of this facility. The new Clinton Indian Health Center will

Phoenix: The Area has no showcase facilities.

Portland: Not applicable in FY2006.

Tucson: None to report.

## **II. Energy Efficiency Performance**

### **A. Energy Reduction Performance**

#### **1. Standard Buildings**

IHS has been classified as Energy Intensive. There are no data to report on Standard Buildings.

#### **2. Industrial and Laboratory Facilities**

IHS has decreased usage from 199,616 BTU/gsf in 2003 to 166,907 BTU/gsf in 2006. This represents a decrease of 16.4 percent.

#### **3. Total OPDIV Energy Consumption**

Per EPA Act 2005, IHS is required to report on energy consumption and the progress toward meeting the two percent per year consumption reduction goal from an FY-2003 baseline. In FY-2003, IHS consumed a total of 1,311,076 MMBTU or 199,616 BTU/GSF. In FY-2005, IHS consumed a total of 1,166,000 MMBTU or 177,386 BTU/GSF. In FY-2006, IHS consumed a total of 1,183,000 MMBTU or 179,697 BTU/GSF. This represents an increase of 1.3 percent above FY-2005 and a reduction of 9.98 percent below the FY-2003 baseline.

#### **4. Exempt Facilities**

Government owned quarters energy data has historically not been included in this report. Quarters are all individually metered and are billed directly to the tenants.

#### **5. Non-fleet Vehicle and Equipment Fuel Use**

All fuel consumption data is collected by GSA through the use of their FAST program.

### **B. Renewable Energy**

#### **1. Self-generated Renewable Energy**

Aberdeen: The Aberdeen Area does not have any self-generated renewable sources. The Area Office is still in the

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process of collecting information on renewable sources. Approximately 20% of the Aberdeen Area electricity comes from hydropower. It has not yet been determined how much of that was installed after 1990. Approximately 3% of the electricity comes from wind turbines.

Alaska: The Area did not provide a response to this question.

Albuquerque: The Albuquerque Indian Health Center and the Santa Fe Indian Hospital have increased their purchase of alternative wind energy to 10% of their monthly usage. At a cost of 1.8 cents/kwh, both facilities took advantage of the local provider's rate reduction plan.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Gallup Indian Medical Center, have solar powered street lights, but I don't have any numbers on current

Oklahoma City: Renewable thermal energy (geothermal ground source heat pumps) is in use at the Pawnee Indian Health Center and the estimated (probably conservatively at 4% of the cost) energy use from this source is \$5,212.

Electricity self-generated from a renewable source (wind turbines in western Oklahoma) is being consumed at the Clinton Indian Health Center and Lawton Indian Hospital and the estimated (at 7.5% of the total

Phoenix: The Area has no renewable energy sources. We had a solar field at our Whiteriver Hospital, but this expensive and complicated system overwhelmed our ability to manage it. The system was inoperable for many years, and it was removed several years ago. We have sold no renewable energy to other parties.

Portland: No self-generated renewable sources are in use.

Tucson: None to report.

## 2. Purchased Renewable Energy

Aberdeen: The majority of the renewable energy comes from Western Area Power Associates. Credits are given to each service unit that is supplied by WAPA associated supplier. All or a portion of the electrical credits are paid back to the associated tribe.

Alaska: At most facilities dropout Alaska there is only one utility supplier. Suppliers that provide renewable energy do not distinguish between renewable and non renewable.

Albuquerque: The Area does not purchase renewable energy under competitive contracts.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Currently, the Navajo Tribal Utility Authority does not have any programs with the selling or purchasing of renewable energy

Oklahoma City: No renewable energy power was purchased under competitive contract.

Phoenix: None that we are aware of.

Portland: Efforts to generate awareness of the EPAAct 2005 requirements were initiated in Portland Area.

Tucson: None to report.

## C. Petroleum

Aberdeen: The Aberdeen Area uses fuel oil, natural gas, and propane for heating and/or emergency or standby generators. Many quarters units have been converted to geothermal ground source heat pumps for heating since the baseline year thereby reducing fuel consumption. Newer larger facilities are and will be coming online. These new facilities will be more energy efficient than the facilities they are replacing.

Alaska: The Area did not provide a response to this question.

Albuquerque: LPG/Propane is used in rural locations where natural gas is unavailable. Diesel use is limited to backup and generator purposes. Renovations, upgrades, and improvements to boiler and mechanical systems throughout the year have had a positive effect on consumption.

Bemidji: 1990 - utilized 64 thousand gals of fuel oil and 11 thousand gal of liquid propane.

2003 - utilized 75 thousand gals of fuel oil, 5,460 thousand cu ft of natural gas, and less than 1000 gal of liquid propane.

2006 - utilized 86 thousand gal of fuel oil, 3,692 thousand cu ft of natural gas, and less than 1000 gal of liquid propane.

Billings: Approximately 103,723 gallons of propane was consumed in FY 2006. No data exists for FY 1990.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: The Area did not provide a response to this question.

Oklahoma City: Fuel oil (#2) used in hospitals in our baseline year Fiscal Year 1990 and in the current Fiscal Year are presumed to be approximately the same so there is no known change from the baseline year.

Phoenix: The Area has no report in this area

Portland: 15,000 gallons LP and 0 gallons Oil were used in 1990. 11,730 gallons LP and 0 gallons oil were used in 2006, which is a 22% reduction.

Tucson: For baseline year 1990 and 2006 the total consumption was 115K gallons and 80K gallons, respectively. This resulted in a reduction of over 30% from the baseline year.

## D. Water Conservation

The Indian Health Service has developed a draft water management plan. It was sent out for review and comment and the accepted comments incorporated into the second draft. The plan was then rewritten to incorporate the latest regulations and guidelines and is ready to be sent for final review before adoption.

Aberdeen: Draft water management plans have been developed. The draft plans will help to identify the extent of water metering needs of each service unit.

Alaska: This was analyzed during the hospital comprehensive energy audits conducted in 2002. We are continuing to pursue ECM's during renovation and upgrade O&M activities.

Albuquerque: Projects to reduce water usage included low flow toilets, waterless urinals, and controls. The installation of additional meters are planned to help further reduce usage and provide for better management.

Bemidji: Best management practices are utilized to conserve water usage. Low flow fixtures and energy star products are reviewed when purchasing.

Billings: The Billings Area healthcare facilities currently do not have water management plans in place, but the Area will educate and encourage the service units to develop their plans and implement the Best

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Each service unit should have implemented the BMP practices. It will also be presented at our Energy conference which is slated to occur on Nov 27 thru 30th.

Oklahoma City: Activities undertaken to improve water efficiency include installation of 12 motion operated faucets in all public restrooms at the Claremore Indian Hospital and 13 automatic sensing hand washing devices for restroom sinks were installed at the WW Hastings Indian Hospital in Tahlequah. Some water conservation is being accomplished at the Creek Nation Community hospital in Okemah since the new steam boilers have automatic blowdown on the separator. The draft IHS Handbook Chapter on interim Water Management was sent to facility engineers and facility managers. Two facility engineers were told about the possibility of installing a device at a hospital that takes gray water from a bathroom sink and uses it to

Phoenix: The Area has not undertaken unique activities to improve water efficiency. The desert environment required the prudent use of water, which we do aspire too.

Portland: No information to report.

Tucson: Low water landscape plans have been designed at each of the facilities to replace high water demand vegetation such as grass and non-native plants. Implementation of this plan is dependent on funding. Water Management Plans and BMP's have not been formally implemented.

## III. Implementation Strategies

### A. Life-Cycle Cost Analysis

Aberdeen: Life cycle cost analysis was included in the design of the new Sisseton Health Center.

- Alaska: With the rising cost of fuel, Alaska is taking another look at Life-Cycle Cost Analysis. Projects that previously had a payback greater than 10 years are now falling into the 10 year payback category.
- Albuquerque: Project Engineers perform a life cycle cost analysis when reviewing projects and services.
- Bemidji: Life cycle cost analysis is utilized during procurement of products and services.
- Billings: Life-Cycle Cost Analysis is performed on as-needed basis.
- California: There are no Federally-owned facilities in this Area.
- Nashville: The Area did not provide a response to this question.
- Navajo: Each project design is structured with the life-cycle cost effectiveness.
- Oklahoma City: A life-cycle cost analysis was done and used in making an investment decision regarding whether to procure an air cooled chiller or a water cooled chiller at the Lawton Indian Hospital.
- Phoenix: The Area has not taken life cycle cost analysis in making investment decisions.
- Portland: M&I projects are prioritized in a manner that considers energy conservation. Where opportunities exist to incorporate energy efficient solutions for M&I projects, Portland Indian Health Service has funded the
- Tucson: LCCA is utilized per Federal requirements.

## B. Facility Energy Audits

0.0% of space was audited during FY2006. A total of 81.0% of IHS space has had an energy audit performed since 1992

## C. Financing Mechanisms

- Aberdeen: The one energy savings performance contract in the Aberdeen Area was unsuccessful and has since been discontinued. No future ESPC's are being contemplated at this time.
- Alaska: Maintenance and Improvement funding has been utilized to complete the majority of energy conservation projects. ESPCs and UESCs have not had success at any of the facilities in Alaska.
- Albuquerque: DOE provided funding for the continuation of energy audits at the Mescalero and Santa Fe Hospitals. The audits were initiated in 2005, but have not yet been completed by the contractor.
- Bemidji: No ESPCs were utilized in the Bemidji Area
- Billings: None to report.
- California: There are no Federally-owned facilities in this Area.
- Nashville: The Area did not provide a response to this question.
- Navajo: The Area did not provide a response to this question.
- Oklahoma City: Energy-Savings Performance Contracts were attempted but not implemented several years ago in the OKC Area.
- There are not any known Utility Energy Services Contracts available from the host utilities that serve our facilities in the OKC Area.
- Funding was requested in 2004 (\$150,000 for direct spending on energy efficiency, \$1,500 for direct spending on training, and \$50,800 for Energy Star building design and construction incremental costs and LEED certification) but not received for use in FY2006.
- Funding was requested (\$4,750 in FY07 and \$7,125 FY 08) but not yet received for purchase of Renewable Energy Certificates as we'd like to pursue purchase, thru GSA or DESC, of Renewable Energy Certificates which average around \$0.001/kwh nationally and an advice of allowance for such as purpose would assist us considerably with such an effort toward "Green Power" purchases.
- Phoenix: The Area has not used Implementation Strategies such as ESPCs or UESCs.
- Portland: No Energy-Savings Performance Contracts or Utility Energy Service Contracts have been implemented in Portland Area. They have not been able to be justified.
- Tucson: N/A

## D. ENERGY STAR® and Other Energy-Efficient Products

- Aberdeen: Area Office and local service unit procurement processes include criteria for Energy Star products where
- Alaska: Information is disseminated to MIRAC and service unit staff relative to energy efficient products.

Albuquerque: Procurement and usage of energy star and energy efficient products are considered by HF staff and engineers. Recommendations and specifications are provided to contractors for inclusion in projects. Information is updated and made available for all.

Bemidji: Bemidji Area promotes the use of ENERGY STAR and uses product energy ratings to assist in product

Billings: All designs provided by the Billings Area Facilities Management staff use MASTERSPEC for specification writing. MASTERSPEC is updated quarterly with the latest energy efficient products.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: All purchases are approved through contracting.

Oklahoma City: The Roof on the Expansion at Lawton is an ENERGY STAR® labeled roof product. A review of [http://www.energystar.gov/index.cfm?c=evaluate\\_performance.bus\\_portfoliomanager\\_intro](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager_intro) unfortunately revealed that we do not believe that any of our facilities in the OKC Area IHS are currently eligible to apply for an Energy Star label in part because we don't think any of our facilities currently meet ASHRAE Standard 62-1999 on indoor air quality, ASHRAE Standard 55-1992 for thermal comfort, and the IESNA Lighting Handbook for lighting quality. We might also have challenges in meeting the Eligibility Rule Sets for Rating Hospital Spaces. We plan to strive to meet standards (the 2004 versions of the ASHRAE ones) such as the ones above on

Phoenix: The Area does purchase ENERGY STAR products though GSA contracts.

Portland: The October 5, 1992 Portland Area Indian Health Service Guideline established model operations and maintenance purchasing procedures for increased energy efficiency within the service units.

Tucson: The Area Contracting Office has required the purchase of ENERGY STAR products.

## **E. ENERGY STAR® Buildings**

Aberdeen: The Area is checking whether the new Sisseton Health Center will meet Energy Star criteria.

Alaska: The Area did not provide a response to this question.

Albuquerque: The Albuquerque Indian Hospital was designated as an Energy Star building in FY 2003 and 2004.

Bemidji: N/A

Billings: Currently 1 out of 2 (50%) hospitals in the Billings Area are eligible to receive the ENERGY STAR have

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: To be discussed at our Navajo Energy Conference, and input from each service unit.

Oklahoma City: No buildings have met the ENERGY STAR® Building criteria and therefore none have officially been designated ENERGY STAR® Buildings.

Phoenix: N/A

Portland: Nothing to report for FY2006.

Tucson: None to report.

## **F. Sustainable Building Design**

Aberdeen: Sustainable design principles are included in all new facility designs including Sisseton and Eagle Butte.

Alaska: Designs for remodeling or additional space require energy efficient materials and equipment. Alaska Area engineers insure that care is taken in selecting equipment that is energy efficient.

Albuquerque: Tribes were encouraged to utilize sustainable building design and incorporate energy efficiency in the new facilities constructed within the Area.

Bemidji: Sustainable building principles are reviewed during building design.

Billings: While the Billings Area does not actively participate in programs such as the BSCG's LEED Program or the GREEN Globe Program, the principles of sustainable building design are constantly being applied when economically feasible to do so.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: LEED will be incorporated into one design at Kayenta

November 17, 2006

Oklahoma City: Sustainable building design principles have been incorporated into the design and construction of the Expansion project at the Lawton Indian Hospital. We plan to eventually get data entered for this project in <http://www.eere.energy.gov/buildings/highperformance/> for high performance buildings.

Phoenix: N/A

Portland: A common set of performance objectives essential to creating high-performance sustainable buildings has been identified and will provide a consistent set of criteria for the Portland Area Health Facility Program. These objectives, in addition to existing legislation and Executive Orders, will help to:

- Reduce the total ownership cost of facilities through life-cycle costing
- Encourage energy efficiency and water conservation
- Enhance energy security
- Provide safe, healthy, productive work environments
- Promote environmental stewardship

Many of these performance criteria build on the US Green Building Council's LEED™ rating system (Leadership in Energy and Environmental Design). In our view, they represent best-practice approaches for implementing LEED in the Federal sector.

#### Integrated Design Practices

Use a collaborative, integrated design approach that:

- Encompasses energy, water, siting, materials, and indoor environmental goals.
- Involves all relevant parties working together from the start.
- Establishes and documents comprehensive design goals at the beginning of the project.

#### Optimize Energy Performance

**Energy Efficiency:** Set a design target to reduce the energy cost budget by 20% compared to the levels required by the current ASHRAE/IESNA Standard 90.1. Energy use in renovations of existing buildings should be reduced by 10%.

**Commissioning:** Employ total building commissioning practices where practical to assure delivery of program goals and related performance requirements.

**Measurement and Verification:** Install continuous metering equipment on major HVAC, lighting, and water-using equipment to track and optimize performance.

After one year of occupancy, verify that all new or renovated buildings earn a score of 75 or higher using the Energy Star® Benchmarking Tool (for all building or space types covered by Energy Star®).

**Indoor water:** Employ strategies that in aggregate use 30% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements.

**Outdoor water:** Use native plants and Xeriscaping, high-efficiency irrigation technology, captured rainwater, or recycled site water to reduce potable water consumption for irrigation by 50% over conventional means.

#### Enhance Indoor Environmental Quality

**Thermal Comfort:** Meet the current ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy, for thermal comfort standards including humidity control within established ranges per climate zone.

**Daylighting:** Achieve a minimum Daylight Factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks.

**Indoor Air Quality:** Meet the minimum requirements of the current ASHRAE 62, Ventilation for Acceptable Indoor Air Quality and approved addenda, using the Ventilation Rate Procedure.

**Reduce Entryway Contaminants:** Employ permanent entryway systems (grills, grates, etc.) to capture dirt, particulates, etc. from entering the building at all high volume entryways.

**Low-Emitting Materials:** Specify materials that are low in volatile organic compounds (VOC) in construction and operation documents, for adhesives and sealants, paints (under coatings and topcoats),

carpet systems, and furnishings, based on LEED credit guidelines, SMACNA recommendations, ASHRAE Standard 52, and other relevant criteria as determined by each agency.

Protect Indoor Air Quality during Construction:

During construction, meet or exceed the recommended Design Approaches of the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 1995, Chapter 3. After construction ends and prior to occupancy, conduct a minimum three-day building flush-out at 100% outside air (or maximum outdoor air while achieving a relative humidity not greater than 60%).

Materials:

Recycled Content. Use materials with recycled content such that post-consumer recycled content constitutes at least 10% of the total value of the materials in the project or combined post-consumer and ½ post-industrial recycled content constitutes at least 20%.

Waste Management During Construction. Recycle or salvage at least 50% of construction, demolition and land clearing waste where a market exists.

Tucson: None to report.

## G. Energy Efficiency in Lease Provisions

Aberdeen: There are very few leases in the Aberdeen Area and IHS does not pay utilities costs in those leases.

Alaska: The Area did not provide a response to this question.

Albuquerque: Leased facilities are typically small health centers and inclusive of existing buildings which are used for functions other than health care. Energy and water efficiency services/improvements are promoted and encouraged when negotiating leases, but most owners do not have the capability to follow through on

Bemidji: N/A

Billings: N/A

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: N/A

Oklahoma City: Energy and water efficiency was strongly encouraged in FY2006 for a new lease that will probably become effective in FY2007.

Phoenix: N/A

Portland: Not applicable to Portland Area HFE.

Tucson: None to report.

## H. Industrial (Energy-Intensive) Facility Efficiency Improvements

Aberdeen: The energy intensive facilities in the Aberdeen Area include hospitals. The hospitals are currently looking at HVAC equipment upgrades including software upgrades to computerized building HVAC programs, boiler replacement, and equipment life analysis.

Alaska: During 2006 Norton Sound Health Corporation undertook two facility improvements that will positively affect the organizations energy utilization.

The first improvement involved the installation of a real time power monitoring device that operates interactively the hospital's direct digital controls system. This installation will enable 24/7 real-time trending of energy usage. Both the hospitals 3 phase normal and emergency power sources are monitored in addition the main ups system for the computer server room. Parameters monitored include real power, power factor, voltage, amperage, and frequency. Power quality from the supplier is poor. This fact has a negative impact upon some of the hospital's sensitive electronics. Monitoring of the incoming power will allow the hospital to work cooperatively with the power utility in finding ways to mitigate the power quality problems.

NSHC also undertook the procurement and installation of a new 30 HP, vertical, double pass, steam boiler which will provide approximately 1035 lbs/hr of process steam to serve space humidification, domestic hot water generation, laundry operations and medical waste processing. The new unit works with a standing pilot which eliminates the energy inefficient pre and post purge cycling. This unit will replace a 50 HP, water tube boiler that cycles continuously which makes its operation both inefficient and expensive.

YKHC

Within the past year many energy conservation measures have been put in place at YKHC. In the Community Health Services building three projects were completed. Air handlers were reprogrammed for night setback. Lighting was upgraded to solid state ballasts and 18W lamps with occupancy sensors. An outside air economizer was added to the air handler serving the computer server room.

The main Hospital Building underwent a lighting upgrade to install electronic ballasts and T-8 lamps, replace incandescent w/ fluorescent, exterior lighting, LEDs in exit signs and occupancy sensors for lighting control. Variable frequency drives were added to three air handlers. Set variable air volume to lowest setting during unoccupied hours in spaces not occupied 24 hours. Chilled water plant controls were modified for staged chiller operation.

Alaska Native Medical Center:

The Hydronic Snowmelt System project has been fully completed. This project is using excess boiler capacity to supply radiant heat through polyethylene piping installed in sidewalks around the facility. Previously the sidewalks were heated through the use of electric snow melt system that proved to be very costly to operate. This new system is expected to save \$8,000 per year by reducing the peak demand.

A ground water cooling system had previously been installed. A study was done to determine how effective this energy savings project has been. This report is still in draft form but the initial findings are showing a savings of \$27,900. This savings only includes the reduced electrical load and does not include the savings from the reduction in peak demand.

Albuquerque: All projects that include upgrades, repairs, or replacement of energy intensive equipment are strongly reviewed. Improvements were made to the systems at Mescalero and Zuni. Further improvements will be made on the boiler system at Mescalero and the Santa Fe system is under design.

Bemidji: Window replacement and light ballast replacement continue to be scheduled at the Red Lake Hospital

Billings: The Wolf Point Health Care Facility is currently undergoing a change-out of their energy management systems and the Crow Hospital recently replaced theirs as well. Both facilities are upgrading their mechanical hardware components as necessary to ensure better energy efficiency as well.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: N/A

Oklahoma City: Activities accomplished at the Claremore Indian Hospital include: lowering steam pressure to 40 psig which increased the latent heat of vaporization in BTU's per pound, installing new shades on 18 east side windows, using all T-10 bulbs in fluorescent light fixtures, and changing approximately 80% of incandescent lamps to compact fluorescent lamps. 13 photocells for exterior lights at were replaced at the W.W. Hastings Indian Hospital in Tahlequah.

Enhanced Commissioning, along with the prerequisite Fundamental Commissioning of Building Energy Systems, is being done in pursuit of LEED certification of the Expansion project at the Lawton Indian Hospital and the new HVAC rooftop units use HFC 407C refrigerant which has some thermodynamically

Phoenix: N/A

Portland: The size of facilities and the types of mechanical systems used do not lend themselves to such processes. For the sake of prudent evaluation, Yakama Service Unit was evaluated for geothermal energy and the return on investment was found to be very poor relative to the initial investment required.

Tucson: A full review of all HVAC systems at the Sells Hospital was conducted to determine whether the system met its current use and a determination of the equipment condition and age. As a result of the audit, a comprehensive building HVAC system upgrade is currently under design.

## I. Highly Efficient Systems

Aberdeen: Retrofit projects for staff housing have included ground source pumps in recent projects. Biomass or other energy sources are not readily available in the Aberdeen Area.

Alaska: The Area did not provide a response to this question.

Albuquerque: No information to report.

Bemidji: N/A

Billings: None to report.

November 17, 2006

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Two service units were investigated for geothermal use. Both were candidates but space did not allow completion of the projects.

Oklahoma City: No combined cooling, heating, and power (CHP) systems were installed.

No projects were done in 2006 that needed local natural resources to be surveyed to optimize use of available biomass, geothermal, or other naturally occurring energy sources.

Phoenix: N/A

Portland: No combined systems were considered in FY 2006. Yakama Service Unit was evaluated for geothermal energy and the return on investment was found to be very poor relative to the initial investment required.

Tucson: None to report.

## J. Distributed Generation

Aberdeen: The Aberdeen Area did not have off-grid alternatives in FY 2006.

Alaska: The Area did not provide a response to this question.

Albuquerque: No information to report.

Bemidji: White Earth continues to utilize diesel power generation during peak electrical load periods.

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Solar panels install at GIMC for lighting parking areas.

Oklahoma City: N/A

Phoenix: N/A

Portland: Nothing to report in FY2006.

Tucson: None to report.

## K. Electrical Load Reduction Measures

Aberdeen: Many Area facilities have emergency or standby power. The Area has not determined the feasibility of using these systems for peak loads.

Alaska: Most facilities in Alaska have automatic load management systems to address load reduction during electrical outages/emergencies. Specific measures were implemented at ANMC to reduce non-essential loads to further reduce the peak load of the facility. Similar techniques were accomplished at other hospital locations as well. The DDC systems assist with non-emergency load management also.

Albuquerque: Each service unit has emergency load reduction plans for their facilities.

Bemidji: The Bemidji Area reduced energy consumption during power emergencies by shutting down computers and electrical devices when not in use.

Billings: Gas generators are installed at most of the major healthcare facilities and can be utilized in the event of a power emergency.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: No new implementation has been established for the Navajo Area, and using 2001 material that was

Oklahoma City: Area facility managers and engineers were advised of the activities required and the reporting guidance for Energy Conservation Efforts at Federal Facilities and in Vehicle Fleets following hurricanes Katrina and Rita.

Area facility managers and engineers were advised of the President's Directive on Energy Conservation on September 26, 2005, on Energy Conservation at Federal Facilities, to reduce electricity load during

Phoenix: Each service unit has a protocol to shed unessential load during emergencies.

Portland: Nothing to report in FY2006.

November 17, 2006

Tucson: None to report.

#### **IV. Data Tables and Inventories**

##### **A. FY 2006 OPDIV Energy Management Data Report**

See Attachment.

##### **B. OPDIV FY 2006 Energy Scorecard**

See Attachment.

##### **C. OPDIV FY 2003 Energy Consumption Baselines**

In the FY-2003 baseline year, IHS consumed 199,615.7 BTU/GSF. This figure was developed jointly by IHS and the HHS Energy Office.

##### **D. Industrial and Laboratory Facilities Inventory**

Attached is a list of Installations with the number of buildings and total installation size.

##### **E. Exempt Facilities Inventory**

Attached is a list of Installations with quarters and the number of quarters units at that installation.

# Attachment A

## FY 2006 OPDIV Energy Management Data Report

## FY 2006 ENERGY MANAGEMENT DATA REPORT

OPDIV: \_\_\_\_\_

Prepared by: \_\_\_\_\_

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

Phone: \_\_\_\_\_

### PART 1: ENERGY CONSUMPTION AND COST DATA

#### 1-1. EPACT Goal Subject Buildings

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)	
Electricity	MWH	142,016.4	\$11,852.5	\$0.08 /kWh	484.6	1,682.9	24,247	
Fuel Oil	Thou. Gal.	1,350.6	\$3,480.4	\$2.58 /gallon	187.3	187.3	3,737	
Natural Gas	Thou. Cubic Ft.	431,433.8	\$5,684.1	\$13.17 /Thou Cu Ft	444.8	444.8	6,436	
LPG/Propane	Thou. Gal.	557.2	\$777.5	\$1.40 /gallon	53.2	53.2	904	
Coal	S. Ton	0.0	\$0.0	#DIV/0! /S. Ton	0.0	0.0	0	
Purch. Steam	BBtu	0.0	\$0.0	#DIV/0! /MMBtu	0.0	0.0	0	
Other	BBtu	13.1	\$180.0	\$13.72 /MMBtu	13.1	13.1		
		<b>Total Costs:</b>	<b>\$21,974.5</b>		<b>Total:</b>	<b>1,183.0</b>	<b>2,381.4</b>	<b>35,325</b>
Goal Subject Buildings (Thou. Gross Square Feet)		<b>6,583.5</b>			<b>Btu/GSF:</b>	<b>179,697</b>	<b>361,719</b>	
					<b>Btu/GSF w/ RE Purchase Credit:</b>	<b>179,475</b>	<b>360,948</b>	
					<b>Btu/GSF w/ RE &amp; Sec. 502(e) Credit:</b>	<b>179,475</b>	<b>360,948</b>	

#### 1-2. EPACT Goal Excluded Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)	
Electricity	MWH	0.0	\$0.0	#DIV/0! /kWh	0.0	0.0	0	
Fuel Oil	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0.0	0	
Natural Gas	Thou. Cubic Ft.	0.0	\$0.0	#DIV/0! /Thou Cu Ft	0.0	0.0	0	
LPG/Propane	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0.0	0	
Coal	S. Ton	0.0	\$0.0	#DIV/0! /S. Ton	0.0	0.0	0	
Purch. Steam	BBtu	0.0	\$0.0	#DIV/0! /MMBtu	0.0	0.0	0	
Other	BBtu	0.0	\$0.0	#DIV/0! /MMBtu	0.0	0.0		
		<b>Total Costs:</b>	<b>\$0.0</b>		<b>Total:</b>	<b>0.0</b>	<b>0.0</b>	<b>0</b>
Goal Excluded Facilities (Thou. Gross Square Feet)		<b>0.0</b>			<b>Btu/GSF:</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	
					<b>Btu/GSF w/ RE Purchase Credit:</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	
					<b>Btu/GSF w/ RE &amp; Sec. 502(e) Credit:</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	

**1-3. Non-Fleet Vehicles and Other Equipment**

	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Btu (Billion)	Est. Carbon Emissions (Metric Tons)
Auto Gasoline	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
Diesel-Distillate	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
LPG/Propane	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
Aviation Gasoline	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
Jet Fuel	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
Navy Special	Thou. Gal.	0.0	\$0.0	#DIV/0! /gallon	0.0	0
Other	BBtu	0.0	\$0.0	#DIV/0! /MMBtu	0.0	0
Total Costs			\$0.0		0.0	0

**1-4. WATER CONSUMPTION, COST AND EFFICIENCY MEASURES**

	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)
Water	Million Gal.	272.5	\$1,111.9
Best Management Practice Implementation Tracking Data			
Number of facilities* in agency inventory			151
Number of facilities with completed water management plans			7
Number of facilities with at least four (4) BMPs fully implemented			7
*number in the agency inventory, can be buildings, bases, or campuses			

**1-5. RENEWABLE ENERGY/RENEWABLE ENERGY CERTIFICATE PURCHASES IN FY 2006**

(Only include renewable energy purchases from resources developed after 1990)

Description of <i>Each</i> Renewable Energy Purchase (examples below, insert additional rows as necessary for each separate purchase)	Amount Purchased (MWH)	or	Amount Purchased (Million Btu)	State or Region of Generation or Source	End Use Category (Goal or Excluded)
Electricity from Renewable Source	428.3		0.0	NM, OK	Goal
Renewable Energy Certificates	0.0		0.0		Excluded
Natural Gas from Landfill/Biomass	0.0		0.0		
Renewable Thermal Energy	0.0		570.0	OK	
Other Renewable Energy (describe)	0.0		0.0		
Total All Purchases	428.3		570.0		
Total Purchases for Goal Buildings	428.3		0.0		
Total Purchases for Excluded Facilities	0.0		0.0		

**1-6. SELF-GENERATED RENEWABLE ENERGY INSTALLED AFTER 1990**

	Consumption Units	Total Annual Energy	Energy Used by Agency*
Electricity from Renewables	MWH	0.0	0.0
Natural Gas from Landfill/Biomass	MMBtu	0.0	0.0
Renewable Thermal Energy**	MMBtu	0.0	0.0
Other Renewable Energy***	MMBtu	0.0	0.0

\*Energy used by agency equals total annual generation unless a project sells a portion of the energy it produces to another agency or the private sector. It can equal zero in the case of non-Federal energy projects developed on Federal land.

\*\*Examples are geothermal, solar thermal, and geothermal heat pumps, and the thermal portion of combined heat and power projects. Energy savings from geothermal heat pumps should be based on energy savings compared to conventional alternatives like air-to-air heat pumps. If only electricity savings are known, multiply kWh savings by 3,412 to estimate renewable energy BTUs.

\*\*\*For other renewable energy that does not fit any category, fill in the type, units used, annual consumption and cost, and include any additional information in your narrative submission. For example, tidal, wave, current and thermal ocean energy, incremental hydropower, or energy displaced by daylighting technology or passive solar design.

**1-7. TOTAL RENEWABLE ENERGY USE AS A PERCENTAGE OF FACILITY ELECTRICITY USE**

Renewable Energy Use (BBtu)	Facility Electricity Use (BBtu)	RE as a Percentage of Electricity Use
2.0	484.6	0.4%

**PART 2: ENERGY EFFICIENCY IMPROVEMENTS**

**2-1. DIRECT AGENCY OBLIGATIONS**

(Agencies may attach their final OMB Circular A-11 Energy and Transportation Efficiency Management Exhibit

	FY 2006		Projected FY 2007	
	(MMBTU)	(Thou. \$)	(MMBTU)	(Thou. \$)
Direct obligations for facility energy		\$601.0		\$1,371.2
Estimated annual savings anticipated	5,167.0	\$47.0	5,316.0	\$60.0

**2-2. ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPC)**

	Annual savings (MMBTU)	(number/Thou. \$)
Number of ESPC Task/Delivery	0.0	0
Investment value of ESPC Task/Delivery Orders awarded in fiscal year.		\$0.0
Amount privately financed under ESPC Task/Delivery Orders awarded in fiscal year.		\$0.0
Cumulative guaranteed cost savings of ESPCs awarded in fiscal year relative to the baseline spending.		\$0.0
Total contract award value of ESPCs awarded in fiscal year (sum of contractor payments for debt repayment, M&V, and other negotiated performance period services).		\$0.0
Total payments made to all ESP contractors in fiscal year.		\$0.0

**2-3. UTILITY ENERGY SERVICES CONTRACTS (UESC)**

	Annual savings (MMBTU)	(number/Thou. \$)
Number of UESC Task/Delivery	0.0	0
Investment value of UESC Task/Delivery Orders awarded in fiscal year.		\$0.0
Amount privately financed under UESC Task/Delivery Orders awarded in fiscal year.		\$0.0
Cumulative cost savings of UESCs awarded in fiscal year relative to the baseline spending.		\$0.0
Total contract award value of UESCs awarded in fiscal year (sum of payments for debt repayment and other negotiated performance period services).		\$0.0
Total payments made to all UESC contractors in fiscal year.		\$0.0

**2-4. UTILITY INCENTIVES (REBATES)**

	Annual savings (MMBTU)	(Thou. \$)
Incentives received and estimated	0.0	\$0.0
Funds spent in order to receive		\$0.0

**2-5. TRAINING**

	(number)	(Thou. \$)
Number of personnel	61	\$32.2

# Attachment B

## OPDIV FY 2006 Energy Scorecard

## FY 2006 Federal Agency Energy Scorecard

OPDIV Name	Contact Name and Phone
Indian Health Service	CDR Gordon Delchamps, P.E., CEM
Name of Senior Energy Official	Signature of Senior Energy Official
James Biasco, P.E., CEM	

Did your agency . . .	Yes	No	Anticipated Submittal Date																								
1. Submit its FY 2006 energy report to OMB and DOE by January 1, 2007 (Sec. 303)?	X		November 17, 2006																								
2. Submit a FY 2006 Implementation Plan by January 1, 2007 (Sec. 302)?	X		November 17, 2006																								
Did your agency . . .	Yes	No	Comments																								
3. Implement or continue to use renewable energy projects at Federal installations or facilitate the siting of renewable generation on Federal land in FY 2006 (Sec. 204)? (Report all self-generated renewable energy from projects installed after 1990; refer to Table 1-7 on the Energy Management Data Report)	X		If yes, how many projects and how much energy generated? (Specify unit: MWH or MMBtu) <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center;"># Projects</th> <th style="text-align: center;">Energy</th> <th style="text-align: center;">Unit</th> </tr> </thead> <tbody> <tr> <td>Solar</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Wind</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Thermal<sup>1</sup></td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Biomass</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Other RE</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>		# Projects	Energy	Unit	Solar	_____	_____	_____	Wind	_____	_____	_____	Thermal <sup>1</sup>	_____	_____	_____	Biomass	_____	_____	_____	Other RE	_____	_____	_____
	# Projects	Energy	Unit																								
Solar	_____	_____	_____																								
Wind	_____	_____	_____																								
Thermal <sup>1</sup>	_____	_____	_____																								
Biomass	_____	_____	_____																								
Other RE	_____	_____	_____																								
4. Purchase energy generated from new renewable energy sources in FY 2006 (Sec. 204)? <sup>2</sup> (Refer to Table 1-6 on the Energy Management Data Report)	X		If yes, how much: _____ MWH or _____ <u>570</u> MMBtu																								
5. Invest direct FY 2006 appropriations in projects contributing to the goals of the Order (Sec. 301)?		X	If yes, how much: \$ <u>601</u>																								
6. Specifically request funding necessary to achieve the goals of the Order in its FY 2008 budget request to OMB (Sec. 301)? (Refer to OMB Circular A-11, Section 25.5, Table 2)		X	If yes, how much: \$ <u>203,000</u>																								
7. Perform energy audits of 10% of its facility space during the fiscal year (Sec. 402)?	X		What percentage of facility space was audited during the FY? <u>0</u> % How much facility space has been audited since 1992? <sup>3</sup> <u>81</u> %																								
8. Issue to private-sector energy service companies (ESCOs) any energy savings performance contract (ESPC) delivery orders (Sec. 403(a))? (Refer to Table 2-2 on the Energy Management Data Report)	X		How many? <u>0</u> Annual savings (MMBtu): <u>0</u> Total investment value <sup>4</sup> : \$ <u>0</u> Cumulative guaranteed cost savings: \$ <u>0</u> Award value: \$ <u>0</u>																								

<sup>1</sup> Examples are geothermal, solar thermal, and geothermal heat pumps. Thermal energy from geothermal heat pumps should be determined as follows: Thermal energy = Total geothermal heat transferred – electrical energy used.

<sup>2</sup> “New” renewable energy means sources developed after 1990.

<sup>3</sup> Should be greater than 100% if all facility space has been audited at least once since 1992.

<sup>4</sup> Investment value includes design, materials, labor, overhead, and profit but excludes contractor’s financing costs and government’s administration costs. Using investment value allows comparison with other traditional execution methods such as appropriated and working capital funded projects.

Did your agency . . .	Yes	No	Comments
9. Issue any utility energy services contract (UESC) delivery orders (Sec. 403(a))? (Refer to Table 2-3 on the Energy Management Data Report)		X	How many? <u>0</u> Annual savings (MMBtu): <u>0</u> Total investment value <sup>4</sup> : \$ <u>0</u> Cumulative cost savings: \$ <u>0</u> Award value: \$ <u>0</u>
10. Incorporate energy efficiency requirements into relevant acquisitions (Sec. 403(b)(3))?	X		
11. Adopt and apply the sustainable design principles (e.g., Whole Building Design Guide, Leadership in Energy and Environmental Design (LEED)) to the siting, design, and construction of new facilities or major (budget line item) renovations begun in FY 2005 (Sec. 403(d))?	X		Number of new building (or major renovation) design/construction projects in FY 2005 <sup>5</sup> : <u>8</u> Number of these projects that can or will be certified under LEED <sup>5</sup> : <u>0</u>
12. Provide training to appropriate personnel <sup>6</sup> on energy management (Sec. 406(d))?	X		Number of appropriate personnel trained: <u>61</u> Total number of appropriate personnel: <u>136</u>
13. Implement any additional management tools (Sec. 406)?	X		Check all that apply: Awards: <u>x</u> Performance Evaluations: <u>x</u> Showcase Facilities: <u>    </u> Number of Showcase Facilities designated in fiscal year: <u>0</u>
14. Establish Water Management Plans (WMPs) and implement at least 4 Best Management Practices (BMPs) in at least 20% of agency facilities (Sec. 207, 503(f))?		X	Number of facilities with WMPs and 4 BMPs: <u>7</u> Number of facilities in agency inventory: <u>151</u>

**NOTE: Provide additional information below if a “No” reply is used for any of the questions above.**

**5&6:** No budget request has been made to specifically address energy efficiency projects. Other sources of funding such as Maintenance and Improvement (M&I), Medicare and Medicaid (M&M), and Quarters Return (QR) are used to complete energy projects.

**9:** IHS has difficulty establishing USECs and ESPCs due to the possibility that a tribe may request to take ownership of federal properties under public law 93-638.

**14:** IHS Headquarters has distributed WMP and BMP information to all Area Offices. There is currently no reporting mechanism to determine the number of facilities using WMPs and BMPs.

<sup>5</sup> Count projects only once, regardless of phase. For example, if in FY 2005, your agency had 10 new building or major renovation projects, of which 2 can be LEED certified, then report 10 and 2, respectively, in the spaces provided. If the project was designed and reported on in response to this question in a previous year, do not report it as a new project in FY 2005, even if construction commenced or continued in FY 2005.

<sup>6</sup> Appropriate personnel include the agency energy management team as well as Federal employees and on-site contractors who are energy or facility managers, operations and maintenance workers, design personnel, procurement and budget staff, and legal counsel.

Please enter data from annual energy report pertinent to performance toward the goals of Executive Order 13123/EPACT 2005	Base Year (2003)	Previous Year (2005)	Current Year (2006)	% Change (Current vs. Base)
15. Site Energy Efficiency Improvement Goals (EPACT)	Btu/Ft <sup>2</sup>	Btu/Ft <sup>2</sup>	Btu/Ft <sup>2</sup>	%
16. Sec. 205. Petroleum-Based Fuel Use in Facilities (E.O. Sec. 205).	26,840 Btu/ Ft <sup>2</sup>	25,467 Btu/ Ft <sup>2</sup>	28,450 Btu/ Ft <sup>2</sup>	6 %
17. Source Energy Use (E.O. Sec. 206).	2,278 BBtu	2,361 BBtu	2381 BBtu	4.5 %
18. Water Consumption (E.O. Sec. 207).	250 MGal	323 MGal	272 MGal	8.8 %
19. Renewable Energy from self-generation and RE purchases (E.O. Sec. 204)	19,807	12,219 BBtu	570	-97 %

Abbreviation Key: Btu/Ft<sup>2</sup> = British thermal units per gross square foot

Btu/unit = British thermal units per unit of productivity (or gross square foot when such a unit is inappropriate or unavailable)

MGal = Million gallons

MMBtu = Million British Thermal Units

BBtu = Billion British Thermal Units

RE = Renewable energy

N/A = Not applicable

# Attachment C

## OPDIV FY 2003 Energy Consumption Baselines

OPDIV FY 2003 Energy Baselines

OPDIV	MMBtu	Square Feet (thous)	MMBtu/ksf
CDC	1,001,357.6	3,053.0	328.0
FDA	674,891.5	2,011.8	335.5
IHS	1,311,075.9	6,568.0	199.6
NIH	6,382,656.4	13,567.9	470.4
OS	85,144.9	876.0	97.2
PSC	111,472.7	1,665.2	66.9
TOTAL	9,566,599.0	27,741.9	344.8

OPDIV FY 2003 vs. FY 2005 Performance

OPDIV	FY 2003 Baseline	FY 2005 Consumption	% Change to Baseline
CDC	328.0	319.5	-2.6%
FDA	334.4	329.7	-1.4%
IHS	199.6	177.4	-11.1%
NIH	470.4	416.1	-11.5%
OS	97.2	92.0	-5.3%
PSC	66.9	54.9	-18.0%
TOTAL	346.2	308.6	-10.8%

# Attachment D

## FY 2006 OPDIV Industrial and Laboratory Facilities Inventory

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Aberdeen	11506	Winnebago IHS Hospital, WINNEBAGO, NE	2000	7	104836
Aberdeen	11522	QUENTIN N BURDICK MEMORIAL HOS, BELCOURT, ND	2000	4	102832
Aberdeen	11523	PHS Indian Health Center, FORT TOTTEN, ND	2000	1	2017
Aberdeen	11524	PHS Indian Hospital, FORT YATES, ND	2000	6	42755
Aberdeen	11525	PHS Indian Health Center, NEW TOWN, ND	2000	3	15962
Aberdeen	11545	PHS Institutional Support Fac, PINE RIDGE, SD	2000	4	54390
Aberdeen	11546	PHS Indian Hospital, RAPID CITY, SD	2000	31	196162
Aberdeen	11547	PHS Institutional Support Fac, ROSEBUD, SD		6	7643
Aberdeen	11548	PHS Indian Hospital, SISSETON, SD	2000	11	29109
Aberdeen	11549	IHS Wagner Health Center, WAGNER, SD	2000	3	36774
Aberdeen	12669	PHS Indian Health Center, KYLE, SD	2000	2	19730
Aberdeen	12670	PHS Indian Health Station, MANDERSON, SD		2	1856
Aberdeen	13170	PHS Indian Hospital, EAGLE BUTTE, SD	2002	6	31827
Aberdeen	13508	PHS Indian Health Center, WANBLEE, SD	2000	3	10112
Aberdeen	13509	PHS Indian Health Station, RED SCAFFOLD, SD		1	960
Aberdeen	13510	PHS Indian Health Station, ALLEN, SD		1	960
Aberdeen	13511	PHS Indian Health Station, BULLHEAD, SD		1	960
Aberdeen	14669	PHS Indian Health Station, WAKPALA, SD		2	3840
Aberdeen	14671	PHS Indian Health Station, SWIFTBIRD, SD		1	1920
Aberdeen	15386	PHS Indian Health Center, MCLAUGHLIN, SD	2000	3	8630
Aberdeen	16180	PHS Indian Health Center, FORT THOMPSON, SD	2000	2	19927
Aberdeen	20148	PHS Indian Health Station, CHERRY CREEK, SD		2	3264
Aberdeen	20149	PHS Indian Health Station, WHITE HORSE, SD		1	2368
Aberdeen	20605	PHS Indian Health Station, CANNON BALL, ND		1	1380
Aberdeen	20606	PHS Indian Health Station, MANDAREE, ND		1	1381
Aberdeen	20607	PHS Indian Health Station, TWINBUTTES, ND		1	1380
Aberdeen	20608	PHS Indian Health Center, LOWER BRULE, SD	2000	2	13335
Aberdeen	41235	PHS Indian Hospital, PINE RIDGE, SD	2000	4	135500
Aberdeen	41236	ABERDEEN AREA YRTC, WAKPALA, SD	2000	1	31484
Aberdeen	41237	PHS Indian Hospital, ROSEBUD, SD	2000	3	95957
Aberdeen	41244	Fort Totten, FORT TOTTEN, ND		2	15452
Alaska	20145	PHS Indian Health Station, HOOPER BAY, AK		1	1048
Alaska	30064	PHS Indian Health Station, SELAWIK, AK		1	884
Alaska	30554	PHS Indian Health Station, NOORVIK, AK		1	884
Alaska	30555	ANIAK HEALTH CTR, ANIAK, AK		1	1288
Alaska	37561	PHS Indian Medical Center, ANCHORAGE, AK	2003	2	382819
Alaska	41231	ALASKA NATIVE HOSPITAL, KOTZEBUE, AK	2000	2	82411
Alaska	41232	KIC Quarters Site, KOTZEBUE, AK		1	1732
Alaska	41245	St. Paul Clinic & Quarters, ST. PAUL, AK		1	21811
Alaska	60634	PHS Institutional Support Fac, ANCHORAGE, AK		10	12722
Alaska	61087	PHS Indian Hospital, BARROW, AK	2003	5	42951
Alaska	61088	PHS Indian Hospital, BETHEL, AK	2002	26	197144

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Alaska	61090	PHS Indian Health Station, GAMBELL, AK		1	1048
Alaska	61092	Mt. Edgecumbe IHS Hospital, SITKA, AK	2002	19	196945
Alaska	61093	Kanakanak IHS Hospital, DILLINGHAM, AK	2001	14	91703
Alaska	61095	Former Nulato Clinic, NULATO, AK		1	910
Alaska	61096	PHS Indian Health Station, SAVOONGA, AK		1	884
Alaska	61097	PHS Indian Health Station, TANANA, AK		16	55772
Albuquerque	11508	PHS Indian Hospital, ALBUQUERQUE, NM	2003	9	80359
Albuquerque	11512	PHS Indian Health Center, DULCE, NM		1	1442
Albuquerque	11514	PHS Indian Hospital, MESCALERO, NM	2005	5	25890
Albuquerque	11516	PHS Indian Hospital, SANTA FE, NM	2005	9	103114
Albuquerque	11520	PHS Indian Hospital, ZUNI, NM	1997	5	85547
Albuquerque	11982	PHS Indian Health Station, LAGUNA, NM	1997	3	6628
Albuquerque	11986	PHS Indian Health Station, SANTO DOMINGO PUEBLO, NM		2	3528
Albuquerque	30066	PHS Indian Health Station, SAN FELIPE PUEBLO, NM		1	2440
Albuquerque	31103	SIPI Indian Dental Center, ALBUQUERQUE, NM	2004	3	14883
Albuquerque	33115	PHS Indian Hospital, SAN FIDEL, NM	2004	2	61845
Albuquerque	37558	PHS Indian Health Center, MAGDALENA, NM		1	11535
Albuquerque	37562	NEW SUNRISE REG TREATMENT CTR, SAN FIDEL, NM	1997	5	13984
Albuquerque	41228	PHS Indian Health Center, TAOS PUEBLO, NM	1997	1	19981
Bemidji	11494	PHS Indian Hospital, CASS LAKE, MN	1994	6	50585
Bemidji	11496	PHS Indian Health Center, NAYTAHWAUSH, MN		1	6145
Bemidji	11497	Pine Point Health Center, PONSFORD, MN		2	3360
Bemidji	11498	CHIEF LEADING FEATHER HOSPITAL, RED LAKE, MN	1994	2	80224
Bemidji	11499	PHS Institutional Support Fac, WHITE EARTH, MN		2	1670
Bemidji	12664	PHS Indian Health Center, PONEMAH, MN	1994	1	6492
Bemidji	41230	PHS Indian Health Center, WHITE EARTH, MN		1	77361
Billings	11501	PHS Indian Hospital, BROWNING, MT	2004	12	146518
Billings	11502	PHS Indian Hospital, CROW AGENCY, MT	2004	5	125173
Billings	11503	PHS Indian Hospital-FT BELKNAP, HARLEM, MT	2003	8	80623
Billings	11504	No. Cheyenne Health Ctr, LAME DEER, MT	2003	6	65466
Billings	11505	PHS Institutional Support Fac, POPLAR, MT		6	6774
Billings	11556	PHS Institutional Support Fac, FORT WASHAKIE, WY	2003	5	23530
Billings	12665	PHS Indian Health Center, HAYS, MT		2	15159
Billings	12679	PHS Institutional Support Fac, ROCKY BOY, MT		3	1368
Billings	14673	PHS Indian Health Center, PRYOR, MT	2003	3	10943
Billings	16175	PHS Indian Health Center, HEART BUTTE, MT	1982	1	6886
Billings	16181	PHS Indian Health Center, ARAPAHOE, WY	2003	3	17214
Billings	20146	PHS Indian Health Center, WOLF POINT, MT		2	20610
Nashville	11500	PHS Institutional Support Fac, PHILADELPHIA, MS	2002	1	2400
Nashville	32061	PHS Indian Health Station, CARTHAGE, MS	2002	1	2440
Nashville	32070	PHS Indian Hospital, PHILADELPHIA, MS	2002	2	58048
Nashville	41222	NASHVILLE AREA YRTC, CHEROKEE, NC	2002	2	13331
Nashville	41223	NASHVILLE AREA ADMINISTRATION, CHEROKEE, NC	2002	1	2400
Navajo	11468	PHS Indian Hospital, CHINLE, AZ	1999	2	108512
Navajo	11469	PHS Indian Hospital, FORT DEFIANCE, AZ		20	107791

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Navajo	11483	PHS Indian Hospital, TUBA CITY, AZ	1998	30	183132
Navajo	11485	PHS Institutional Support Fac, WINDOW ROCK, AZ	1983	6	12742
Navajo	11486	PHS Indian Health Center, WINSLOW, AZ	2000	11	37801
Navajo	11511	PHS Indian Hospital, CROWNPOINT, NM	1997	7	89183
Navajo	11517	PHS Institutional Support Fac, SHIPROCK, NM	1999	5	44471
Navajo	11519	PHS Indian Health Center, TOHATCHI, NM		6	46842
Navajo	11969	PHS Indian Medical Center, GALLUP, NM	1998	12	172109
Navajo	11974	PHS Indian Health Center, KAYENTA, AZ	1999	13	27716
Navajo	11976	PHS Indian Health Station, PINON, AZ	1999	2	5077
Navajo	11980	PHS Indian Health Station, CROWNPOINT PUEB PINT, NM	1997	4	7470
Navajo	14677	PHS Indian Health Station, LEUPP, AZ		3	4660
Navajo	15381	PHS Indian Health Station, DENNEHOTSO, AZ	1983	1	1262
Navajo	16171	PHS Indian Health Center, MANY FARMS ROUGH ROCK, AZ	1999	1	13068
Navajo	19713	PHS Indian Health Station, TOADLENA, NM		1	1262
Navajo	19718	PHS Indian Health Station, HOTEVILLA DINNEBITO, AZ	1979	1	1262
Navajo	20393	PHS Indian Health Station, GREASEWOOD, AZ	1979	1	2526
Navajo	20396	PHS Indian Health Station, MANY FARMS ROUGH ROCK, AZ		1	1265
Navajo	20399	PHS Indian Health Center, FORT WINGATE, NM	1999	1	7656
Navajo	30549	PHS Indian Health Center, SANOSTEE, NM		1	2528
Navajo	30550	PHS Indian Health Center, TEEC NOS POS, AZ		1	5519
Navajo	30552	PHS Indian Health Station, ROCK POINT, AZ		1	3300
Navajo	30553	PHS Indian Health Station, DILKON, AZ		2	4016
Navajo	35774	PHS Indian Health Center, INSCRIPTION HOUSE, AZ	1999	1	19480
Navajo	35775	PHS Indian Health Center, HUERFANO (NAGEEZI), NM	1999	1	18278
Navajo	37554	PHS Indian Health Center, TSAILE, AZ	1999	2	19807
Navajo	41238	NORTHERN NAVAJO MEDICAL CENTER, SHIPROCK, NM		3	215448
Navajo	41248	Ft. Defiance Hospital-New, FORT DEFIANCE, AZ	2004	1	253656
Oklahoma City	11493	PHS Indian School Health Ctr, LAWRENCE, KS	2004	3	16992
Oklahoma City	11528	PHS Indian Hospital, CLAREMORE, OK	2004	7	110403
Oklahoma City	11529	PHS Indian Hospital, CLINTON, OK	2004	11	27677
Oklahoma City	11533	PHS Indian Hospital, LAWTON, OK	2003	8	88944
Oklahoma City	11534	PHS Indian Health Center, PAWNEE, OK	2004	7	28137
Oklahoma City	11536	PHS Institutional Support Fac, TALIHINA, OK	1985	8	134750
Oklahoma City	11537	PHS Institutional Support Fac, TAHLEQUAH, OK	2005	2	9410
Oklahoma City	37552	PHS Indian Health Center, ANADARKO, OK	2003	1	20000
Oklahoma City	37553	W. W. Hastings Hospital, TAHLEQUAH, OK	2004	3	149932
Oklahoma City	37563	Redbird Smith Health Center, SALLISAW, OK		1	22930
Oklahoma City	41229	Wilma P. Mankiller Health Ctr, STILWELL, OK		1	37359
Oklahoma City	41246	New Pawnee Health Center, PAWNEE, OK		1	68832
Phoenix	11470	PHS Institutional Support Fac, KEAMS CANYON, AZ		3	2496
Phoenix	11472	PHS Indian Hospital, PARKER, AZ	1982	2	81455
Phoenix	11473	PHS Indian Medical Center, PHOENIX, AZ	2001	24	266671
Phoenix	11475	PHS Indian Hospital, SACATON, AZ		5	39298
Phoenix	11476	PHS Indian Health Station, CASA BLANCA (GRANDE), AZ		1	1320
Phoenix	11477	PHS Indian Hospital, SAN CARLOS, AZ	2001	12	52458

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Phoenix	11480	PHS Indian Health Center, SCHURZ, NV		9	26593
Phoenix	11484	PHS Indian Hospital, WHITERIVER, AZ	2001	9	121375
Phoenix	11488	PHS Indian Hospital, WINTERHAVEN, CA	1982	9	21766
Phoenix	11507	PHS Indian Hospital, OWYHEE, NV	2001	4	41916
Phoenix	11550	PHS Indian Health Center, FORT DUCHESNE, UT	2001	5	20612
Phoenix	11975	PHS Indian Health Center, PEACH SPRINGS, AZ		1	2399
Phoenix	12660	PHS Indian Health Center, BYLAS, AZ		2	2136
Phoenix	12661	PHS Indian Health Station, HOTEVILLA DINNEBITO, AZ		1	702
Phoenix	12676	PHS Indian Health Center, LAVEEN, AZ		1	2900
Phoenix	33113	PHS Indian Health Center, CIBECUE, AZ	1983	1	12146
Phoenix	33114	PHS Indian Health Center, MCDELMITT, NV	1983	1	2590
Phoenix	37565	PHS Indian Health Station, SUPAI CANYON, AZ		1	2160
Phoenix	41216	GILA RIVER YRTC, SACATON, AZ		6	39561
Phoenix	41239	Hopi Health Center, POLACCA, AZ		1	96840
Phoenix	41241	DENTAL CLINIC, JEDDITO, AZ		1	2262
Phoenix	41242	PHS Indian Health Station, MOAPA, NV		1	3605
Portland	11491	PHS Indian Health Center, FORT HALL, ID	2004	3	32586
Portland	11540	PHS Indian Health Center, CHEMAWA (Salem), OR	2004	3	23124
Portland	11542	PHS Indian Health Center, WARM SPRINGS, OR	1997	2	3168
Portland	11551	PHS Indian Health Center, NESPELEM, WA	2003	5	24941
Portland	11553	PHS Indian Health Center, WELLPINIT, WA	2004	3	26709
Portland	19712	PHS Indian Health Center, TOPPENISH, WA	2005	4	51772
Portland	30067	PHS Indian Health Center, NEAH BAY, WA	2004	3	10163
Portland	41217	HEALING LODGE OF THE SEVEN NAT, SPOKANE, WA	1995	3	30999
Tucson	11478	PHS Indian Health Center, SANTA ROSA, AZ	1982	1	3733
Tucson	11479	Health Center &AreaOffice, SAN XAVIER, AZ	1982	19	53324
Tucson	11482	PHS Indian Hospital, SELLS, AZ	2004	28	82924
Tucson	41234	PHS Indian Health Station, PISINEMO, AZ		1	1134

# Attachment E

## FY 2006 OPDIV Exempt Facilities Inventory

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Aberdeen	11506	Winnebago IHS Hospital, WINNEBAGO, NE	2000	1	2060
Aberdeen	11522	QUENTIN N BURDICK MEMORIAL HOS, BELCOURT, ND	2000	91	93630
Aberdeen	11524	PHS Indian Hospital, FORT YATES, ND	2000	31	43155
Aberdeen	11525	PHS Indian Health Center, NEW TOWN, ND	2000	17	17168
Aberdeen	11545	PHS Institutional Support Fac, PINE RIDGE, SD	2000	54	74851
Aberdeen	11547	PHS Institutional Support Fac, ROSEBUD, SD		24	65413
Aberdeen	11548	PHS Indian Hospital, SISSETON, SD	2000	2	4904
Aberdeen	11549	IHS Wagner Health Center, WAGNER, SD	2000	3	7870
Aberdeen	12669	PHS Indian Health Center, KYLE, SD	2000	20	27152
Aberdeen	13170	PHS Indian Hospital, EAGLE BUTTE, SD	2002	16	53502
Aberdeen	13508	PHS Indian Health Center, WANBLEE, SD	2000	5	5675
Aberdeen	15386	PHS Indian Health Center, MCLAUGHLIN, SD	2000	4	9808
Aberdeen	16180	PHS Indian Health Center, FORT THOMPSON, SD	2000	11	15043
Aberdeen	41235	PHS Indian Hospital, PINE RIDGE, SD	2000	36	68605
Aberdeen	41237	PHS Indian Hospital, ROSEBUD, SD	2000	51	101773
Aberdeen	41244	Fort Totten, FORT TOTTEN, ND		2	2421
Alaska	16182	Nome Quarters Bldg, NOME, AK		1	841
Alaska	41232	KIC Quarters Site, KOTZEBUE, AK		4	55974
Alaska	41233	NANA Quarters Site, KOTZEBUE, AK		3	19992
Alaska	61087	PHS Indian Hospital, BARROW, AK	2003	3	62639
Alaska	61088	PHS Indian Hospital, BETHEL, AK	2002	11	54956
Alaska	61092	Mt. Edgecumbe IHS Hospital, SITKA, AK	2002	4	8150
Alaska	61093	Kanakanak IHS Hospital, DILLINGHAM, AK	2001	10	42048
Alaska	61094	Kotzebue Older Qtrs, KOTZEBUE, AK	1980	5	28042
Albuquerque	11512	PHS Indian Health Center, DULCE, NM		5	8041
Albuquerque	11514	PHS Indian Hospital, MESCALERO, NM	2005	7	14198
Albuquerque	11520	PHS Indian Hospital, ZUNI, NM	1997	25	25737
Albuquerque	33115	PHS Indian Hospital, SAN FIDEL, NM	2004	18	49050
Albuquerque	37562	NEW SUNRISE REG TREATMENT CTR, SAN FIDEL, NM	1997	1	1240
Bemidji	11499	PHS Institutional Support Fac, WHITE EARTH, MN		4	3391
Billings	11501	PHS Indian Hospital, BROWNING, MT	2004	47	104987
Billings	11502	PHS Indian Hospital, CROW AGENCY, MT	2004	32	36893
Billings	11503	PHS Indian Hospital-FT BELKNAP, HARLEM, MT	2003	13	19376
Billings	11504	No. Cheyenne Health Ctr, LAME DEER, MT	2003	24	35007
Billings	11505	PHS Institutional Support Fac, POPLAR, MT		13	17786
Billings	11556	PHS Institutional Support Fac, FORT WASHAKIE, WY	2003	7	7774
Billings	12665	PHS Indian Health Center, HAYS, MT		6	7644
Billings	12679	PHS Institutional Support Fac, ROCKY BOY, MT		8	10015
Billings	37556	Quarters Compound, LODGE GRASS, MT	2003	9	11716
Nashville	11500	PHS Institutional Support Fac, PHILADELPHIA, MS	2002	3	4172
Nashville	11521	PHS Indian Hospital, CHEROKEE, NC	2002	2	2557
Navajo	11468	PHS Indian Hospital, CHINLE, AZ	1999	96	255788
Navajo	11469	PHS Indian Hospital, FORT DEFIANCE, AZ		67	99906
Navajo	11483	PHS Indian Hospital, TUBA CITY, AZ	1998	84	339023
Navajo	11485	PHS Institutional Support Fac, WINDOW ROCK, AZ	1983	26	37579
Navajo	11511	PHS Indian Hospital, CROWNPOINT, NM	1997	72	120146

Area	Installation#	Installation Name	Last Energy Audit	Number of bldgs	Total GSF
Navajo	11517	PHS Institutional Support Fac, SHIPROCK, NM	1999	40	86480
Navajo	11969	PHS Indian Medical Center, GALLUP, NM	1998	2	4590
Navajo	11974	PHS Indian Health Center, KAYENTA, AZ	1999	48	58448
Navajo	11976	PHS Indian Health Station, PINON, AZ	1999	1	1660
Navajo	16171	PHS Indian Health Center, MANY FARMS ROUGH ROCK, AZ	1999	11	16368
Navajo	19717	Shonto Housing, SHONTO, AZ		3	3326
Navajo	30550	PHS Indian Health Center, TEEC NOS POS, AZ		3	4464
Navajo	35774	PHS Indian Health Center, INSCRIPTION HOUSE, AZ	1999	13	33525
Navajo	35775	PHS Indian Health Center, HUERFANO (NAGEEZI), NM	1999	5	9224
Navajo	37554	PHS Indian Health Center, TSAILE, AZ	1999	11	28503
Navajo	41248	Ft. Defiance Hospital-New, FORT DEFIANCE, AZ	2004	126	419798
Oklahoma City	11536	PHS Institutional Support Fac, TALIHINA, OK	1985	18	22980
Phoenix	11470	PHS Institutional Support Fac, KEAMS CANYON, AZ		42	55196
Phoenix	11472	PHS Indian Hospital, PARKER, AZ	1982	16	22692
Phoenix	11475	PHS Indian Hospital, SACATON, AZ		8	11404
Phoenix	11477	PHS Indian Hospital, SAN CARLOS, AZ	2001	24	37981
Phoenix	11484	PHS Indian Hospital, WHITERIVER, AZ	2001	77	108979
Phoenix	11507	PHS Indian Hospital, OWYHEE, NV	2001	17	42398
Phoenix	11550	PHS Indian Health Center, FORT DUCHESNE, UT	2001	8	10200
Phoenix	11975	PHS Indian Health Center, PEACH SPRINGS, AZ		7	8438
Phoenix	37565	PHS Indian Health Station, SUPAI CANYON, AZ		2	3584
Portland	11542	PHS Indian Health Center, WARM SPRINGS, OR	1997	6	8890
Portland	30067	PHS Indian Health Center, NEAH BAY, WA	2004	9	12296
Tucson	11482	PHS Indian Hospital, SELLS, AZ	2004	25	55825

# *IHS Annual Energy Implementation Report*

## **I. Management and Administration.**

### **A. Energy Management Infrastructure**

#### **1. Senior OPDIV Energy Official**

The senior Agency Official is the Director, Division of Facilities Operations. This person supervises the Agency's Energy Coordinator. The Agency Energy Team consists of 12 Area Offices (Aberdeen, Albuquerque, Alaska, Bemidji, Billings, California, Nashville, Navajo, Oklahoma, Portland, Phoenix, Tucson) and 2 Regional Offices (Engineering Service (ES) in Dallas and Seattle). The 12 Area Offices and 2 Engineering Services Offices each have a designated Energy Coordinator who is supervised by the

#### **2. OPDIV Centralized Energy Program**

Aberdeen: The Aberdeen Area will begin an energy awareness campaign at the Area OEHE Workshop in February

Alaska: Alaska employs an Area energy coordinator to collect and report data to the Tribal Health Organizations (THO's) and IHS Headquarters. The coordinator seeks energy saving program and project opportunities and works directly with the THO Facility Managers to implement energy conservation measures and training. The annual energy consumption data will be continued to be collected and reported. Energy Conservation Measures (ECM's) will be continually evaluated and implemented to offset the increasing energy requirements. Some additional energy increases are to be anticipated in the future, since all buildings in Alaska do not yet meet the Indoor Air Quality and Air conditioning requirements for

Albuquerque: The energy coordinator and project managers will continue to assist the service units with energy management and projects.

Bemidji: Bemidji Area Facility Engineer will work with facility managers to track energy usage, and plan for potential future energy savings.

Billings: Burke Helmer, P.E., CFM, Energy Coordinator, compiles total dollars spent through WebFRS for each utility in the Billings Area. Average utility rates from the 2006 Consumer Price Index for the Montana/Idaho Region are used to calculate the Area's utility usage. These are the numbers that are reported to Headquarters. Obtaining direct utility data and costs for each building is currently too time prohibitive, but the Area Office tracks actual utility usage for our 12 major healthcare facilities in Montana and Wyoming. In addition, we have actively been modifying the automated building control systems to optimize energy efficiency at those buildings as well as been making operational recommendations to the facility staff. This includes commissioning and test & balancing of the HVAC building systems. In-formal

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: The Area did not provide a response to this question.

Oklahoma City: Further emphasis will be placed in FY2007 on aspects of EPACT 2005 that are pertinent to facility engineers and facility managers. Emphasis will be placed in FY2007 on the Council on Environmental Quality's proposed (with the presumption that it will be adopted) Executive Order entitled "Enhancing Government Performance through Effective Environmental, Energy, and Fleet Management" and Appendix. We plan to strive to promote the Office of Federal Environmental Executive mission areas of waste prevention, recycling, green purchasing, sustainable buildings, electronic stewardship, and

Phoenix: A team addressing energy usage will be investigated for interest and commitment. Design standards requiring inexpensive but efficient utility systems will be pursued. GSA vehicles should be ordered only with MPG of 25 or higher. Waterless urinals should be standard. Grass lawns should be converted to dry

Portland: Area Office is in the process of implementing plans for FY2007. The energy team includes the Area Office energy manager, the Area Office DHFE staff and the facility managers. In FY2007, the new EPACT 2005 requirements will be implemented on schedule along with EO13123 directives. The primary communication tool will be the Area Workshop and through Area Office reviews of the program.

Specifically, in FY2007:

- Energy audits are scheduled at the Healing Lodge of the Seven Nations and the Western Oregon Service Unit,
- DDC upgrades are proposed for Western Oregon Service Unit (pending the outcome of the energy audit).

Tucson: In previous years it has been difficult to collect data in a timely manner. In order to facilitate the data collection, an energy data collection outsourcing contract will be solicited. This will also allow facility managers more time to analyze the data and find ways of reducing both consumption and cost. Additionally, an energy team will be established to periodically review and find ways of reducing

## B. Management Tools

### 1. Awards (Employee Incentive Programs)

Aberdeen: The Aberdeen Area will include energy management incentives in the FY 2007 energy management

Alaska: The Area did not provide a response to this question.

Albuquerque: Employees will continue to be recognized for their efforts and overall performance. Appraisals will be reviewed to ensure that energy is included in those positions where applicable.

Bemidji: Bemidji Area has used awards to reward performance in the past and will continue to utilize these incentives as needed for future projects and exceptional performance.

Billings: The Billings Area Office has continued with the Energy Awards Program open to all employees within the Billings Area. The program has four different award categories that either an individual or a group of individuals can submit a project for. Three of the awards are cash awards and the fourth is a Service Unit Award that can receive \$25000 of M&I money to supplement their facility program. All potential award nominations are submitted to the Area Office for review by a registered engineer and must have a payback of three or less. The projects must then be initiated by the service unit with cooperation by the Area Office.

Nominations for the annual HHS Energy and Water Management Awards and DOE's Federal Energy

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Will improve employee incentive programs.

Oklahoma City: The OKC Area Office will strive to implement an employee incentive program to reward those that help implement Executive Order 13123 and we will consider nominations for the HHS Energy and Water Management Awards and the DOE Federal Energy Management Program Awards. The OKC Area Office will consider submitting a team project (the Expansion project at the Lawton Indian Hospital that is seeking LEED certification) as a nomination for a 2007 White House Closing the Circle (CTC) Award. The potential submission, under the Sustainable design/green buildings award category, would go to a review panel at HHS/OS via HQ where select nominations would then go to the Office of the Federal

Phoenix: The Phoenix Area will continue to use existing awards programs to reward exceptional performance in the energy arena.

Portland: At several of the facilities, improvements to HVAC controls and test and balance activities are proposed. We anticipate an energy reduction at these facilities. Fiscal Year 2007 will be focused on taking steps and implementing measures that align with the EPA Act 2005 and with best management practices. This will position the Portland Area IHS to pursue award. Facility managers will be encouraged to look for opportunities to save energy, monitor water conservation through improved records, and to develop

Tucson: The Area will continue to solicit employees for energy or resource conservation awards.

### 2. Performance Evaluations

Aberdeen: FY 2007 performance appraisals will include energy management for the Area Energy Coordinator.

Alaska: The Area did not provide a response to this question.

Albuquerque: The Area will continue to review the requirements to determine changes/additions in future position descriptions and performance evaluations.

Bemidji: N/A

Billings: The Deputy Director of Facilities Management currently has the responsibility of Energy Coordinator and all the duties associated with it. Their performance tied to those duties is evaluated by the Director of Facilities Management during his/her annual review.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Since some of the facilities did not report any information on their energy usage a memo from the Area Facility Manager with the concurrence of the Area Director should help the Area Core Energy Managers establish the Energy Program.

Oklahoma City: The Energy Coordinator has energy conservation, sustainability, and compliance with Executive Order 13123 as a critical element in his HHS Employee Performance Appraisal Plan (Performance Management Appraisal Program).

We will advocate in 2007 for inclusion of pertinent requirements of Executive Order 13123 in the PMAP

Phoenix: N/A

Portland: In Fiscal Year 2007, the Departmental Objectives contained an objective to "Implement the Real Property Asset Management Program and Strategically Manage our Real Property". It is likely that individual facility manager's performance plans contain elements of energy management.

The Portland Area Indian Health Service will formally form an Area energy team consisting of facility managers and Area Office DHFE staff.

Tucson: None to report.

### 3. Training and Education

Aberdeen: The Aberdeen Area will include energy management training in the FY 2007 energy campaign.

Alaska: ANTHC provides energy management and conservation training to staff engineers. ANTHC engineers participate in energy conservation seminars and workshops. Energy conservation elements of HVAC and DDC systems are also covered at these seminars and workshops. Headquarters staff have trained facility managers and service unit staff on energy awareness. The FEMP energy awareness publications and information is channeled to the THO Facility Managers for energy awareness. On-site energy training is

Albuquerque: The area will continue to encourage and provide training opportunities for the HF staff.

Bemidji: N/A

Billings: Training is available to all service unit facilities staff for the control and operation of building HVAC systems. Training is provided through the National Environmental Health Support Center in addition to the numerous third-party training courses available nationally.

The Area Energy Coordinator attended an on-line DHHS Energy Course and four Blackfoot facilities personnel attended a Johnson Controls training course on their energy management building control

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: If all is well with the training we will hold an annual energy training for the Navajo Area.

Oklahoma City: Training from EMC Engineers Inc., which was sponsored by DHHS and coordinated by the IHS EHSC, was conducted at the Oklahoma City Area Office in October of 2006. Attendees included a facility engineer and a maintenance foreman from our hospital in Tahlequah, a facility manager, electrician, and a maintenance foreman from our hospital in Claremore, and two engineers and one architect from the Area Office.

We plan to include training for energy management requirements as part of our annual facility manager meeting in 2007.

We plan to continue Area outreach programs to hospitals and health centers that include education,

Phoenix: Current budget plans have allowed for \$2,000 for 2007 continuing education.

Portland: FY 2007 will involve promoting and disseminating specific training opportunities. The facility managers will be encouraged by Portland Area Office to pursue energy management training and pursue training that achieves the objectives of EO13123 and EPAAct 2005.

Energy Star and other opportunities will be presented and specific goals will be explored to determine whether such goals are achievable under current budgetary conditions.

Tucson: The Area will seek energy efficient product education and training opportunities for staff.

### 4. Showcase Facilities

Aberdeen: Future new/replacement facilities include Eagle Butte and Rapid City.

Alaska: The Area did not provide a response to this question.

Albuquerque: Showcase facilities will be identified and recommended for recognition if applicable. Other venues of recognition will be investigated.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Navajo Area will be entering data into the Energy Star website

Oklahoma City: A looming exemplary new facility that HHS should consider for a DOE Federal Energy Saver Showcase Facilities in the next Fiscal Year is the Expansion project at the Lawton Indian Hospital because LEED Silver certification is being sought and this will be the first IHS facility that has sought and will hopefully

Phoenix: N/A

Portland: Plans are underway for a several regional healthcare facilities through the Indian Health Service priority system. During FY2007, discussion will be given to the potential opportunities that exist to showcase these facilities early in the planning phase.

Tucson: None to report.

## II. Implementation Strategies

### A. Life-Cycle Cost Analysis

Aberdeen: Life cycle cost analysis will be incorporated into the design of the new Eagle Butte Hospital.

Alaska: Life cycle cost analysis is a required element for evaluation of all potential energy projects or ECM's. The 10-year simple payback is a go no-go decision tool and the Life cycle cost is used to prioritize the best use of funding. The MIRAC funding criteria require this method of project evaluation prior to releasing funds

Albuquerque: Life cycle cost analysis will continue to be used on major projects.

Bemidji: N/A

Billings: Life-Cycle Cost Analysis is performed on as-needed basis.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Each engineer should be aware of the life-cycle cost effectiveness and not just the energy managers in each of their projects. If not all are aware training should be part of tool box.

Oklahoma City: A life-cycle cost analysis is being required for the design of a direct digital control system at the W.W. Hastings Indian Hospital in Tahlequah and for the design of major electrical upgrades at the Claremore Indian Hospital and for the design of a boiler replacement at the Lawton Indian Hospital.

Phoenix: The Area will begin this process.

Portland: Portland Area applies life-cycle and return-on-investment approaches to selecting investments and will continue to do so in FY2007.

Tucson: LCC will be implemented on the upcoming Sells Hospital HVAC upgrade, ~\$2M total project cost.

### B. Facility Energy Audits

IHS plans to continue auditing at least ten percent of facility space on an annual basis.

### C. Financing Mechanisms

Aberdeen: No future ESPCs are under consideration.

Alaska: ESPC's are not the choice of the THO's in Alaska.

Albuquerque: SAVEnergy audits were planned for Taos and Zuni hospitals, but DOE does not plan to fund the program any longer. Funds will have to be identified to implement these audits in the future.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: The Area did not provide a response to this question.

Oklahoma City: Funding was requested (\$10,010 for Biodiesel in FY07 and \$10,010 for Biodiesel in FY08) for Biodiesel (a 55 gallon drum of PS121 which is B100 with an additive to prevent gelling in cold weather recently cost \$250.25 and we could use 40 of these 55 gallon drums each year) for use in our emergency generators.

Funding was requested (\$4,750 in FY07 and \$7,125 FY 08) for purchase of Renewable Energy Certificates as we'd like to pursue purchase, thru GSA or DESC, of Renewable Energy Certificates which average around \$0.001/kwh nationally as an advice of allowance for such as purpose would assist us considerably with such an effort toward "Green Power" purchases.

Performance of energy surveys/audits will be discussed with facility managers and facility engineers in 2007 and attention to the HHS Facilities Program Manual Volume II will be given regarding the first through the final (local utility, federal resources, UESC, in-house, engineering firm) resources that should be sought for energy auditing.

Phoenix: N/A

Portland: Under current conditions, ESPCs and UESCs are not justified in Portland Area.

Tucson: N/A

## **D. ENERGY STAR® and Other Energy-Efficient Products**

Aberdeen: Energy Star product information will be promoted in the FY 2007 energy campaign.

Alaska: ANTHC engineers work with the THO's Facility managers to evaluate project specifications and purchases to insure the most energy efficient models are considered in the procurement process.

Albuquerque: Energy Star and energy efficient products will continue to be specified for all projects.

Bemidji: N/A

Billings: All designs provided by the Billings Area Facilities Management staff use MASTERSPEC for specification writing. MASTERSPEC is updated quarterly with the latest energy efficient products.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Make note that contracting is aware of the E.O. on purchasing Energy Star Label equipment.

Oklahoma City: We plan to work with procurement to further promote the purchase of ENERGY STAR® products and/or products that are in the upper 25 percent of energy efficiency as designated by FEMP. We may use the ENERGY STAR® Roofing Comparison Calculator from <http://roofcalc.cadmusdev.com/> to evaluate the ENERGY STAR® labeled roof product on the Expansion at Lawton.

Phoenix: The Area will continue to buy ENERGY STAR products

Portland: Specific Energy Star opportunities are being sought for FY2007, but have not been identified.

Tucson: A/E specifications will be reviewed and modified as necessary to reflect ENERGY STAR requirements.

## **E. ENERGY STAR® Buildings**

Aberdeen: The Area is planning the new Eagle Butte Hospital to meet Energy Star criteria.

Alaska: The Area did not provide a response to this question.

Albuquerque: No new buildings to report.

Bemidji: N/A

Billings: Currently 1 out 2 (50%) hospitals in the Billings Area eligible to receive the ENERGY STAR have been

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Follow up on each service unit. Major task

Oklahoma City: The Lawton Indian Hospital is expected to become eligible to meet the ENERGY STAR® Building criteria in FY2007 but designation as such is not expected until FY2008.

Phoenix: N/A

Portland: ENERGY STAR designations for Portland Area buildings are not anticipated in FY2007.

Tucson: None to report.

## F. Sustainable Building Design

Aberdeen: All future new construction in the Aberdeen Area will include sustainable design principles.

Alaska: The Area did not provide a response to this question.

Albuquerque: No new facilities are planned, but when applicable, sustainable practices will be encouraged.

Bemidji: N/A

Billings: While the Billings Area does not actively participate in programs such as the BSCG's LEED Program or the GREEN Globe Program, the principles of sustainable building design are constantly being applied when economically feasible to do so.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: The Area did not provide a response to this question.

Oklahoma City: LEED certification of the Expansion project at the Lawton Indian Hospital is expected in FY2007.

Phoenix: N/A

Portland: New facility construction that involves the construction of new clinical space and involve site development will utilize LEED sustainability criteria in the design and construction, regardless of whether or not the facility pursues LEED certification.

Tucson: None to report.

## G. Energy Efficiency in Lease Provisions

Aberdeen: No new leases are pending in FY 2007.

Alaska: The Area did not provide a response to this question.

Albuquerque: Energy and water efficiency will continue to be encouraged during lease negotiations.

Bemidji: N/A

Billings: N/A

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: N/A

Oklahoma City: In GSA leases for the OKC Area and in the lease for the new OKC Area Office building, GSA included a clause in the Solicitation for Offers that addressed energy cost savings and water conservation. Offerors were encouraged to use Energy Savings Performance Contracts to maintain or exceed the ENERGY STAR Building Benchmark score of 75.

Phoenix: N/A

Portland: Not applicable to Portland Area HFE.

Tucson: None to report.

## H. Industrial (Energy-Intensive) Facility Efficiency Improvements

Aberdeen: The Aberdeen Area will continue to explore energy efficiency opportunities in future projects.

Alaska: We are developing THO Energy Strategies for each THO to get organizational staff members more focused on strategic energy conservation action that will achieve energy goals and positive monetary

Albuquerque: Improvements will continue to be made as projects move toward construction.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Upgrading efficient fuel system for boiler operation at Gallup Indian Medical Center.

Oklahoma City: The Area Energy Coordinator plans to download and review three software programs, the Steam System Scoping Tool (SSST), the Steam System Assessment Tool (SSAT), and the 3E Plus insulation analysis tool in FY2007.

The Area Energy Coordinator plans to use the Steam System Scoping Tool at hospitals in Lawton, Claremore, and Tahlequah in FY2007.

The Steam System Assessment Tool and the 3E Plus insulation analysis tool will be considered for inclusion in a scope of work for design services from an engineering firm on the boiler replacement project at the Lawton Indian Hospital in FY2007.

LEED certification of the Expansion project at the Lawton Indian Hospital, which is expected in FY2007, will include Compliance Path Option 1 (Performance Rating Method, ASHRAE 90.1-2004 Appendix G) under the Energy and Atmosphere Credit 1. Facility Efficiency Improvements that are proposed for the design input and expected to be realized with this Expansion project include: R19 batt insulation and a R14.9 Assembly rating for the exterior wall construction, R30 rigid insulation and a R35 Assembly rating for the roof construction, a 9.8% window to gross wall ratio, fixed double pane low-E type fenestrations, a .55 fenestration U-factor, a .36 fenestration north SHGC (Solar Heat Gain Coefficient), a .36 fenestration non-north SHGC coefficient, overhangs used as shading devices on the west exposure, interior lighting power densities based on design fixtures and the space by space method, 1.44 kW for exterior lighting power, .43 W/sf for receptacle equipment power density, variable volume direct expansion packaged rooftop units with terminal unit reheat provided by high efficiency natural gas fired heating water boilers, variable frequency drives for fan supply volume control, enthalpy type economizer control, demand control ventilation, and a variable flow hot water loop with two way valves.

Engineers will attempt to use tools such as the DoE Chilled Water System Analysis Tool available from

Phoenix: N/A

Portland: No activities proposed.

Tucson: None to report.

## I. Highly Efficient Systems

Aberdeen: The Area will continue to optimize these opportunities on future Projects.

Alaska: The Area did not provide a response to this question.

Albuquerque: No information to report.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: An investigation of re-commissioning of all major buildings will be looked into. Also, an investigative look into all mechanical aspects of the major buildings

Oklahoma City: No combined cooling, heating, and power systems (CHP) are forecast in 2007.

No projects are planned in 2007 that are projected to need a survey of local natural resources to optimize use of available biomass, geothermal, or other naturally occurring energy sources.

Phoenix: N/A

Portland: No plans for FY 2007. The cost of such projects and the return on investment tend to be prohibitive for Portland Area Indian Health Service.

Tucson: None to report.

## J. Distributed Generation

Aberdeen: The Area does not expect off grid opportunities in FY 2007.

Alaska: The Area did not provide a response to this question.

Albuquerque: The Area will take advantage of alternative systems where applicable.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: No funding reported for off-grid generation at service units

Oklahoma City: Information on solar outdoor lighting may be sent to applicable field locations.

Phoenix: N/A

Portland: The viability of a pilot or demonstration project in this regard will be evaluated in FY2007.

Tucson: None to report.

## **K. Renewable Energy Purchases**

IHS will continue to pursue options and advocate for renewable energy purchases.

Aberdeen: The Area Office will examine the amount of credit retained by each Service Unit for those Service Units receiving WAPA credits.

Alaska: Not applicable to Alaska.

Albuquerque: The Area will research future opportunities for renewable energy.

Bemidji: N/A

Billings: None to report.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Dependent on utility company

Oklahoma City: There are no plans to purchase any additional renewable energy under competitive contract in 2007 although AEP/PSO, which serves the Clinton Indian Health Center and the Lawton Indian Hospital, obtains approximately 7.5% of its power from wind turbines and it offers it to all its customers.

Phoenix: None to report.

Portland: The Portland Area Indian Health Service is in the process of implementing the EPAAct 2005 requirements for renewable energy to ensure that the 2010 requirement of 3% renewable energy by 2010 is met.

Tucson: No renewable energy purchases planned.

## **L. Electrical Load Reduction Measures**

Aberdeen: The Area will consider using these generators during FY 2007. Power companies in the Area will be

Alaska: The Area did not provide a response to this question.

Albuquerque: Service unit plans will be updated as needed.

Bemidji: N/A

Billings: Gas generators are installed at most of the major healthcare facilities and can be utilized in the event of a power emergency.

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Will be updating new material into Navajo Area intranet

Oklahoma City: Area facility managers and engineers will be reminded again, prior to the spring of 2007, of activities required under the Presidential Directives to reduce electricity load during power emergencies and the requirement for emergency conservation plans contained in Title 10, CFR, Part 436, Subpart F, Paragraph 436.105 (<http://www.washingtonwatchdog.org/documents/cfr/title10/part436.html#436.105>).

Phoenix: The Area Healthcare facilities will continue to shed load as needed.

Portland: The President's Memorandum of May 3, 2001 will be considered in the establishment or modification of utility rate plans.

Tucson: None to report.

## **M. Water Conservation**

The Indian Health Service Water Management Plan will be adopted and distributed to the Area Offices in

Aberdeen: The draft water management plans will be implemented. The water management plans will determine water metering needs and associated costs for each Service Unit.

Alaska: Energy audits recently conducted at six of the seven hospitals identified energy conservation measures (ECM's) to include addressing water conservation. ECM's are then bundled together with other projects

Albuquerque: Projects and improvements will be identified and reviewed at all facilities.

Bemidji: N/A

Billings: The Billings Area healthcare facilities currently do not have water management plans in place, but the Area will educate and encourage the service units to develop their plans and implement the Best

California: There are no Federally-owned facilities in this Area.

Nashville: The Area did not provide a response to this question.

Navajo: Develop a report that each service unit will have to fill out and respond and ACE managers will follow-up.

Oklahoma City: Our Water Management Plan should be in place in 2007 and we plan to implement some Best Management Practices for efficient use of water. We plan to use info from <http://intranet2.hhs.gov/energy/reporting/watermgmt.html>.

Phoenix: The Area will continue to conserve water to its utmost ability, given our lack of control, and no budget in this utility area.

Portland: Education regarding the required Best Management Practices will be provided in FY2007. Specific goals for implementing best management practices will be set and tied to opportunities for recognition.

Tucson: Proceed with the installation of the low water landscape as funding allows. Establish WMP's and BMP's for FY-07.