

2017 IHS Green Champion Award Winners

Sustainable Acquisitions

IHS Vito Pietanza

Mr. Pietanza is recognized for his outstanding sustainability efforts in acquisition and procurement activities that supplement the goals of E.O. 13693, the HHS Affirmative Procurement Plan (APP) and the HHS SSPP, in order to improve IHS green purchasing activities throughout the IHS Area Procurement Offices. Mr. Pietanza developed a user-friendly procurement form that allows acquisition personnel to evaluate and consider green purchasing alternatives. In addition, his bridging the FAR clauses to be used in purchase orders have instilled a clearer understanding of the Green Procurement purchasing guidelines.

Energy & Fleet Management

IHS Unity Healing Center Energy Improvements

Allen Bollinger, Greg Leading Fox, Jeff Thomas, Arden Stiner, Trevor Sullivan, Tiara Ruff, Mike Rice, Franklyn Yap

The Unity Healing Center, located in Cherokee, North Carolina, is a residential drug and alcohol treatment facility serving Native American youth in the Nashville Area, a service area that includes 28 states from Maine to Florida and to Texas. This facility can serve up to 16 residents at a time. The 13,000-square foot facility was originally built in 1937 as the Cherokee Hospital. After sitting abandoned for many years, the building was converted into a regional treatment center in 1989. During the previous energy savings renovation in 2008, the local staff were able to reduce energy consumption from 300,000 KWH per year to 250,000 KWH, a 17 percent reduction in energy use.

An energy audit completed in 2014 was used to identify new projects to further improve the energy savings at the facility. Audit results lead to a project that would upgrade the lighting fixtures with LED lights, commission the HVAC system, and install a solar powered domestic water heater. Completion of this project in December 2016, has further reduced energy consumption to 200,000 KWH per year, a 33 percent reduction from the baseline in 2008.

Good Neighbor

IHS Russian Mission Heat Recovery Project

Michael Nabers, Andrea Moreno, Maxwell Goggin-Kehm, Shawn Takak, James Temte, Marleah Labelle, Bailey Gamble, Tashina Duttie, John Street

Three departments within the Alaska Native Tribal Health Consortium (ANTHC) teamed up with the rural Alaskan community of the Russian Mission to make local water and sewer service more affordable. Central to the project was the implementation of a heat recovery system that captures heat from the main power plant generator and delivers it via hydronic lines to the water treatment plant and three teacher housing units. The captured heat displaces about 12,000 gallons of fuel that these buildings use for heating each year. This equates to an estimated annual savings of \$35,000. Prior to the project, the water/sewer utility was in debt for \$42,642. The outcome of the project resulted in the water/sewer utility having a reserve account of approximately \$173,000.

The heat recovery system alone offers significant benefit to the community, but an even greater potential for change lies in a multi-faceted approach to project delivery. As part of this project, the community youth also expressed their water culture through art and new Alaska Native engineers gained hands-on experience giving back to Alaska communities. This project demonstrated how technical projects can be leveraged to create meaningful opportunity to center tradition and build capacity amongst emerging engineers.

IHS Holistic Approach Planning in Rural Alaska

Jackie Qatalina Schaeffer, Michael Stevens, Arlo Davis, Princess Johnson, Jack Hebert

In the winter of 2014, Oscarville, a small community near Bethel, Alaska on the Kuskokwim River, volunteered to participate in a pilot project called the "Holistic Approach to Sustainable Northern Communities." Oscarville lacks water/sanitation infrastructure, struggles with a housing shortage, and experiences extremely high energy costs. In early 2015, a multi-agency team visited Oscarville for a site assessment and community meeting.

At that time, a group of agency leaders held the first roundtable discussion to assist this small community. The roundtable brought together federal, state, local, and nonprofit partners to develop a more collaborative approach to projects in rural Alaska. While issues like energy, housing, transportation, sanitation, health, and economic development are typically addressed by separate agencies, they are all interconnected. The goal is to use a holistic approach in these efforts that is driven by the community and leverages the expertise and resources of agency partners. This approach has broadened its scope to include climate adaptation and create a holistic, resilient community utilizing local assessments, best practices and recommendations for project implementation.

Operational Efficiency

IHS Kurt Petersen

Kurt Petersen took the initiative to study the existing control strategies used in the heating, ventilation, and air conditioning (HVAC) equipment used at various facilities in the Great Plains Area. The goal was to determine if sustainability gains could be achieved by making changes or "optimizing" the HVAC control sequences. It was determined that changes in the control strategies for equipment scheduling, air handler economizing, and building pressurization could be implemented that would result in an increase in energy efficiency, lower operating and

maintenance costs, improve indoor air quality, and improve occupant comfort. These changes in control strategies were tested and implemented in various pieces of equipment at various IHS facilities.

Sustainable Design & Facilities

IHS Keweenaw Bay Indian Community Health Facilities Solar Projects

Keweenaw Bay Indian Community Tribal Council, KBIC Committee for Alternative & Renewable Energy, Todd Scofield, Brian Willoughby

The Keweenaw Bay Indian Community (KBIC) Tribal Council created the Committee for Alternative & Renewable Energy (CARE) in September of 2008. The Tribe created a Strategic Energy Plan with assistance from the Council for Energy Resource Tribes (CERT). This initial planning document established a Practical Vision, Strategic Directions, and Implementation Plan. KBIC Strategic Energy Plan included increased self-sufficiency through sustainable energy development. CARE received a completed Energy Audit from Energy 3 in June of 2012, which provided energy efficiency recommendations for all of its tribally operated buildings along with a feasibility study of wind and solar energy. The company provided information for both the New Day Residential Treatment Facility and Commodity Foods Warehouse that showed a return on investment within 12 years. The KBIC began its initial solar deployment through a 20 kilowatt (kW) solar array placed at the Commodity Warehouse. There was a significant amount of savings from the first installation. As a result, KBIC decided to pursue additional solar installations at their healthcare facilities with assistance through Indian Health Service's Department of Facilities Management and the Environmental Steering Committee.

IHS Newtok Relocation to Mertarvik Sustainable Planning

Gavin Dixon, Joseph Hess, Jackie Schaeffer, Sierra Branson, Thomas Hoellering, Delanora Grey, John Warren, David Beveridge, Michael Black, Susan Miskill

Newtok, a unique community in rural Alaska with a strong culture that has persevered and thrived for generations, is suffering from the severe impacts of storm driven erosion. The community is losing 70 feet of shoreline per year. It is anticipated that structures will succumb to erosion beginning in 2018. The U.S. Army Core of Engineers determined that there are no cost-effective mitigation measures that can impede the progression of the erosion. As a result of this determination, the community is working towards a relocation to a new site located 10 miles away known as Mertarvik. The Alaska Native Tribal Health Consortium (ANTHC) worked diligently with the Newtok Village Council and the Newtok community to design a new, sustainable community safe from the erosion.

IHS Kayenta Healthcare Center Planning, Design, and Construction Team

John Bausch, Alex Gamble, Paul Geisert, Candace Tsingine, Rolanda Frank, Dekker/Perich/Sabatini Architects, Flintco LLC

The planning, design, and construction team that developed the Kayenta Healthcare Center replacement ensured that integrative planning and design of the facility for the entire site including the healthcare center and staff housing units. The team emphasized cross-cutting

collaboration to advance sustainability goals in the planning, design and operational phases that exceed or supplemented targets in E.O. 13693 and HHS Sustainable Buildings Program.

Surrounded by majestic natural monuments of great beauty and sacred value, the Kayenta Healthcare Center was designed to take advantage of the views not only for the beauty, but to provide the patients with a sense of wellbeing in a recognizable place. Because the weather in this region can be hot and windy, the design incorporates protected courtyards that provide a landscaped oasis for solitude and relaxation. The Center has earned LEED-Gold Certification and has incorporated the Guiding Principles for Sustainable Federal Buildings to ensure the sustainable nature of this Federally operated healthcare facility.