

"Leading the Way in Delivering Air Force Installation Energy Assurance"

ENERGY | express

A product of the Air Force Civil Engineer Center

October/November 2018

Assuring Our Air Force Installations' Energy Future

How one Air Force office is leading the charge towards a more resilient force



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QA

We spoke with Air Force Office of Energy Assurance (OEA) Executive Director Mr. Robert Hughes to get an inside look at the new Air Force Energy Storefront capability.

Q. For our readers who aren't familiar with OEA, can you describe the work your office performs for the Air Force?

A: The Air Force must have reliable access to energy resources to ensure America's Airmen can fulfill their mission to fly, fight and win in air, space and cyberspace. This is why my office was established back in 2016 - to serve as the single point of entry for all strategic facility energy and resiliency initiatives. OEA operates as the facilitator and integrator of energy assurance efforts and acts as "resilience advocates" by ensuring projects align with installation needs and with the three strategic goals of the Air Force Energy Flight Plan - improve resiliency, optimize demand and assure supply.

Since then, my office has engaged with local communities and industry partners at 17 Air Force installations, each addressing critical mission requirements. We engage with defense and federal agencies, industry and communities to develop innovative, technology-neutral solutions that defend against cyber, natural and physical challenges. OEA's holistic strategy for energy management helps shape installation resilience across the country, and in turn, enhance the Air Force mission.

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Photo courtesy U.S. Air Force

Q. Recently, OEA announced a new way to engage with the Air Force on energy resilience projects at the Department of Energy's Energy Exchange conference. Can you tell our readers more about your office's new initiative?

A: OEA launched the Energy Storefront Platform – a new process and set of tools that makes it easier for internal and external partners to engage with us and help us develop energy resilience projects using strategic solutions that may not have otherwise been considered. My team then builds upon these ideas to identify and implement holistic energy solutions for Air Force installations.

Q. How is this different from OEA's previous efforts?

A: While OEA has been considered the storefront for Air Force energy solutions since its inception, my office is building upon our previous role to become the Air Force's biggest advocate for resilient energy initiatives. My team has established a digital repository to track all Air Force energy resilience efforts and measure them against Air Force energy requirements. We also developed new processes to help streamline the intake of energy resilience solution ideas from all stakeholders. These efforts are helping move the Air Force towards a more secure energy future. Our website is a good resource for learning more.

Q. Who does OEA work with, and what changes could this mean for them?

A. OEA regularly engages with installations, community and industry partners to identify innovative, technology-neutral solutions to enhance resilience and ensure mission success. We will continue to serve as the single point of entry for those interested or involved in Air Force facility energy resilience initiatives. OEA is always looking for additional opportunities to build and grow relationships with internal and external stakeholders and



Photos courtesy U.S. Air Force

with the new Storefront Dashboard, we can now connect directly with those interested parties.


Q: How can interested parties submit energy ideas?

A: My team has established a single access point for both internal and external stakeholders to submit energy ideas or market insights. We created an internal, CAC-enabled Storefront Platform to serve as a conduit for installations to submit project ideas and energy project documentation.

For our external stakeholders, we created industry and community project interest forms to identify innovative solutions

to local and installation energy challenges and to identify and pursue mutually beneficial energy resilient opportunities. OEA also issued an Open Request for Information, solicitation number W912DY-18-U-OEA1, for those interested in providing additional information not captured in the online Project Interest Forms.

Q: So it sounds like there is a lot happening at OEA. How can our readers keep up with OEA's efforts?

A: I would recommend signing up for the office newsletter, OEA Updates. We send out periodic emails on RFIs and RFPs, project updates, events, community engagements and more. 

Jack Allen is the Energy Manager at Whiteman Air Force Base, Missouri. He has a Bachelor's degree in Industrial Engineering from North Dakota State University. Prior to serving as Whiteman's energy manager for the last six-and-a-half years, most of his 25-year career was spent as an environmental engineer for both the Navy and the Air Force. During his time at Whiteman, he has contributed in areas of project development and management, energy consumption and reporting, selection of optimal rates, increasing focus on improving resilience and assuring supply, implementation of TRIRIGA, upgrading to digital controls, installation of LED lighting, and developing an energy savings performance contract.

When he's not working, you can find Jack working at a hobby he's had since elementary school, music. He takes his guitar inspiration from Doc Watson, who he heard many years ago, and enjoys the journey of working towards perfecting his style of flatpicking.


What motivates you about working with Air Force Energy?

The opportunity to work with great people motivates and energizes me to contribute to the Air Force mission. I would especially like to acknowledge the shops in Whiteman AFB's CE Operations Flight. They have a wealth of knowledge and are always willing to help out and make our base better. Some of the best sources for my energy-related education have come from the dedicated folks in the CE shops at Whiteman, particularly in electric, HVAC, plumbing, and power production.

What is the most interesting part of your role?

The opportunity to contribute to the B-2 mission at Whiteman AFB is an honor. Seeing this incredible aircraft in the air reminds me why I come to work each day.

Tell us about the relationship you've built with AFCEC's Energy Directorate.

The AFCEC CN staff are knowledgeable and always willing to help. Over the past six and a half years, I've worked with many Energy Directorate personnel: Dan Soto, Deven Volk, Mike Petitpren, Paul Carnley, Dan Gerdes, Nancy Coleal, Dick Fillman, Fred Cade, Les Martin, Mike Giniger, Jene Doornik-Surber, Jacob LaCourse, and John Broughton all come to mind. Nancy helped me to reduce utility costs at Whiteman. Together, we selected an optimal tariff that reduced our electric costs by about 8% or roughly \$430K per year. Those are real savings that add up year after year. 



Air Force awards \$143 million energy savings contract at DoD's largest joint base



By J. Brian Garmon
AFIMSC Public Affairs

TYNDALL AIR FORCE BASE, Fla. — The Air Force Civil Engineer Center Energy Directorate's Program Development division worked together with Joint Base San Antonio, Texas, and the Defense Logistics Agency-Energy to award an energy savings performance contract valued at nearly \$143 million to increase energy resiliency at the Department of Defense's largest joint base.

Ameresco, Inc. has been awarded the contract to support all areas of JBSA and provide more than \$285 million in total cost savings over the 22-year financed term of the contract.

"This project represents a major achievement for the Air Force and the Warfighter," said Dr. Joe Davis, project manager for the AFCEC Energy

Directorate. "Its successful award is a direct result of the significant teamwork by JBSA, AFCEC and DLA-Energy."

The plan for the project calls for upgrades to approximately 900 buildings across JBSA, totaling more than 14.5 million square feet. JBSA will receive energy upgrades to increase their energy resilience, efficiency, and reliability. Twenty megawatts of renewable energy systems, including solar and combined heat/power plants, will be installed inside the fence line and energy security will be improved through microgrid control systems.

JBSA, AFCEC, and DLA-Energy not only worked together to develop the scope and goals of this project, but were able to leverage \$2.7 million in direct investment through the military's facilities, sustainment, restoration, and modernization program to reduce the required amount of capital investment by the government.

Solar arrays will deliver power to JBSA-Lackland on a daily basis and reduce demand from the grid, providing additional cost savings to JBSA. If a grid outage occurs, the base will continue to receive power from the arrays and control systems will actively shed non-critical loads to match available electricity. The energy storage system will provide reliable, fast-responding power minimizing mission impact until backup generators come on-line and the grid restores power.

Additional upgrades will include: heating, ventilation, air conditioning energy management control systems, additional HVAC thermal energy storage, new lighting and controls, improved building envelopes, and the integration of on-site generation, backup generation, and battery storage.

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"The Ameresco ESPC was the result of two long years of detailed planning and assessment of facilities to identify opportunities," said Tom Mieczkowski, team chief for the 802nd Civil Engineering Squadron energy manager section, portfolio optimization element. "The objective was to increase energy resilience, modernize JBASA's facility infrastructure, reduce lifecycle operating costs, and mitigate risk associated with future commodity price volatility. The savings over the term of the contract will enable JBASA to introduce additional energy resiliency to sustain the important missions here while also conserving energy."

Facilities in the scope of this project will see a 24 percent reduction in energy usage, a reduction in their energy spend by approximately \$8.7 million annually.

"Enabling the Warfighter to conduct their missions is a key role of Air Force civil engineers," said Brenda Roesch, director of the 502nd Civil Engineer Group. "This ESPC will strengthen energy resilience at Joint Base San Antonio and in the San Antonio region."

ESPC projects like these are made

"Enabling the Warfighter to conduct their missions is a key role of Air Force civil engineers."


- Brenda Roesch, director of the 502nd Civil Engineer Group

possible through the ability of the government to enter into partnerships with energy service companies. These contracts provide energy resilience, energy savings and facility improvements with no up-front capital costs to the government. ESPCs make major improvements to the bases' energy infrastructure and can include items such as installing renewable or other high-efficiency sources of power. In addition, they decentralize utility infrastructure increasing efficiency, retrofit existing exterior lighting with new high-efficiency fixtures, and address climate issues in buildings identified by the base.

Energy service companies are given an opportunity to respond to a notice of opportunity released by an installation and, after the installation selects a company to proceed, the company conducts a preliminary assessment, followed by an investment-grade audit. During this process, AFCEC, a primary subordinate

unit within the Air Force Installation and Mission Support Center, provides technical expertise to the installation while the company evaluates and recommends energy conservation measures that make sense for the location. After completion of this process and approval, an award can be made.

"We have an entire team of engineers dedicated to supporting these projects," said Mike Ringenberg, ESPC program manager for the AFCEC Energy Directorate. "Whether installations are looking for guidance on the best path to pursue, technical expertise, or an experienced facilitator to help the installation through the process, we are eager to help."

Installations interested in pursuing energy projects are encouraged to reach out to AFCEC through the Reachback Center at (888) 232-3721 or at AFCEC.RBC@us.af.mil. 

If you would like to nominate someone to be profiled in an upcoming issue, please contact us at AFIMSC. PA.Workflow@us.af.mil.

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<https://cs2.eis.af.mil/sites/10159/>

*Air Force Civil Engineering
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*Energy Express is a publication of the
Air Force Civil Engineer Center,
Detachment 1, Tyndall AFB, Florida.*

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