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

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Senior DOD, AF leaders visit Tyndall CE energy operations

By Emily MifsudAFIMSC Public Affairs

On Nov. 4, Richard Kidd, Deputy Assistant, Office of the Secretary of Defense for Environment and Energy Resilience, and Mark Correll, Deputy Assistant Secretary of the Air Force had the opportunity to tour Tyndall AFB facilities. They met with the Air Force Civil Engineer Center's Energy, Readiness and Operations Directorates and Tyndall's Natural Disaster Recovery Program Management Office.

Tyndall's Energy team briefed Kidd and Correll on current and future energy projects that provide cost effective solutions for Air Force installations to receive energy upgrades and achieve mission assurance through energy assurance. Kidd emphasized

the importance of the Energy Resilience and Conservation Investment Program and that it is expanding to include bigger, more complex and challenging projects. Last year, \$173 million in ERCIP contracts were awarded and by 2024 the program is expected to increase to \$400 million.

Kidd and Correll also joined the Readiness and Operations Directorates at Tyndall's Silver Flag training site for a demonstration of the aqueous film forming foam replacement project that supports eliminating Per- and polyfluoroalkyl substances, or PFAS, from firefighting foam by 2023 to meet U.S. Navy military specifications and support aircraft rescue and firefighting mission needs. The tour wrapped up with with a Natural Disaster Recovery briefing on transforming Tyndall into the "Installation of the Future."



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Maj. Gen. Allen presents 2020 FEMP, Meritorious Civilian Service awards

By Emily MifsudAFIMSC Public Affairs

Tyndall Air Force Base, Fla. — Members of the Air Force Civil Engineer Center's Energy Directorate were recently presented with the U.S. Department of Energy's Federal Energy Management Program award.

During a visit to Tyndall AFB, Maj. Gen. John Allen, AFCEC commander, and David Dentino, AFCEC executive director, presented the 2020 U.S. Department of Energy's FEMP award to the Energy Directorate's program development team for its contributions in energy efficiency, resilience and technology achievement.

Although the team received the award in 2020, this was one of the first opportunities for the team to safely join together for the official presentation due to COVID-19 protocols.

The team earned the FEMP award for their work developing and awarding 25 complex Energy Savings Performance Contracts and Utility Energy Savings Contracts. With an implementation value of nearly \$1 billion, the contracts will generate a guaranteed savings of \$1.7 billion over the next 22-years. A centralized program office was also created to support all third-party financed contract development at installations world-wide.

"I derive a lot of pride from being a part of high performing organizations and for being an Airmen engineer," said Maj. Gen. Allen. "Earning this award is a big accomplishment and people need to see and acknowledge the team's hard work and dedication to Air Force energy resilience."

Additionally, Maj. Gen Allen and Dentino presented the Meritorious Civilian Service award decoration to Michael Allison, who served on the program development team and recently retired in January 2021. He was recognized for over 30 years of energy management experience and exemplary service to the Air Force. Allison was responsible for the development and implementation of the ESPC and UESC measurement and verification quality control guidelines and assisted with daily operations for the programs.



Maj. Gen. John Allen presents the 2020 FEMP award to members of the AFCEC Energy Directorate's program development division Dec. 8, 2021.

Pictured front, Maj. Gen. John Allen and Mike Ringenberg. Back from left, Tom Laney, Mark Dent. Dean Andrews, Michael Allison and Jacob LaCourse.



David Dentino, AFCEC executive director, presents the Meritorious Civilian Service award to Michael Allison Dec. 8, 2021.

"It's great to see the conditions that Mr. Allison has set with helping transition the ESPC and UESC programs from a what was very decentralized to a more centralized program to comprehensively develop requirements for understanding gaps and gap analysis," said Dentino. "It's going to pay dividends for decades. I'm proud and thankful for the work that he's done."

FSRM NRG Program Manager for the Program Development Division

Please tell us about your experience/background.

I grew up in Cleveland, Ohio, the other maple syrup state and graduated from Akron University with a Civil Engineering degree. In Ohio, I worked in commercial construction performing design, inspection, testing and lab work on concrete and soils. I also maintained facilities for the Army at Ft. Rucker, Alabama. From there I was stationed in Korea, supporting civil engineering and energy at the 19th Theater Support Command where I met my lovely wife, Sonyong. Afterwards, I took advantage of many fantastic job opportunities all over the world including Schofield Barracks, Hawaii; Chievres

AB, Belgium; Wiesbaden & Stuttgart, Germany; Kosovo and Okinawa. At Wiesbaden, I worked for the U.S. Army Corps of Engineers managing Energy Conservation Investment Program projects across Europe and obtained my professional engineer license. Then I started with the Air Force Civil Engineer Center's Energy Directorate focusing on utilities privatization and found I truly enjoy this work. Outside of energy, I spent much of my career working as a master planner.

I've been involved in many interesting projects, traveled to 27 countries and visited remote places on military aircraft. I've seen so much of the world that I would not have experienced had I not chosen this career.

Describe your role at AFCEC.

I recently accepted my current role of managing Energy Savings, or facility sustainment, restoration and modernization NRG, projects and oversee all energy conservation projects submitted to compete for FSRM funding that contain energy savings. I review the projects ensuring all business rules are followed and savings calculations come from reliable testing sources, so there are no adverse impacts on facilities or operations. We also seek out new technologies and devices as they evolve.

What is the best thing about your job?

That I make an impact to the Air Force by improving energy reliability, resilience and reducing energy consumption. I enjoy working with so many dedicated professionals from headquarters and bases around the world, gaining different insights and perspectives. It's an honor and privilege to serve the military.

Tell us about the hobbies you enjoy in your down time.

I enjoy maintaining, driving and racing an Oldsmobile 442, cycling, brewing beer, traveling the world or just going to the beach. I also enjoy spending time with my wife and two young daughters.

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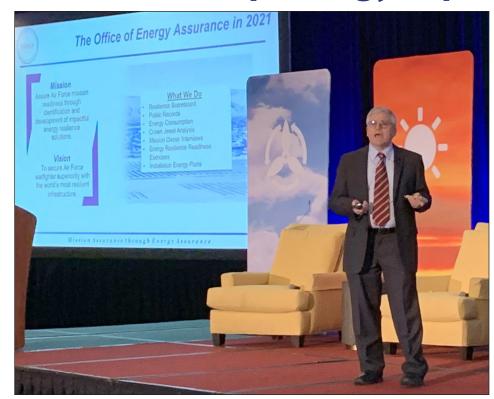
AFCEC attends 2021 Power Up Energy Expo

By Emily MifsudAFIMSC Public Affairs

TYNDALL AIR FORCE BASE, FL — The Air Force Civil Engineer Center's Energy Directorate, along with Richard Kidd, Deputy Assistant, Office of the Secretary of Defense for Environment and Energy Resilience, and Mark Correll, Deputy Assistant Secretary of the Air Force, attended the 2021 Power Up Energy Expo Nov. 3-4 in Panama City Beach, Florida.

The event theme, "Building Resilient Installations," focused on how military installations can use current and future technology to improve their impact on the environment and create a model for government sustainability programs. Several members of the Energy Directorate presented to attendees, which included subject matter experts in architecture, engineering, construction and power generation.

Day one speakers included Mike Ringenberg, Energy Savings Performance Contract program manager, who gave an overview of the ESPC and Utility Energy Service Contract programs. His presentation demonstrated how the Department of Defense is utilizing these contracts to implement energy conservation measures that improve energy resiliency. Kirk Phillips, director of the Office of Energy Assurance, closed out the day with a keynote presentation addressing the rebuild of Tyndall AFB. He shared insight on what Tyndall will look like as the Air Force's model "Installation of the Future."



Kirk Phillips, Director of the Office of Energy Assurance, delivers a keynote presentation at the 2021 Power Up Energy Expo in Panama City Beach, Florida.

Day two kicked off with Kidd as the opening keynote speaker, focusing on the DOD sustainability strategy, including the implementation of the Climate Adaptation Plan. The plan will ensure that climate-ready-installations, equipment, personnel and capabilities are successful in a contested, multi-domain environment. Correll also presented an overview of the innovative approaches the Air Force is using to achieve mission

assurance through energy assurance. Through the use of Environmental Resiliency Conservation Investment Program, or ERCIP contracts, installations are receiving energy resilience upgrades including microgrids, renewable energy and storage, geothermal, air source and heat pumps to support electric vehicle charging stations.

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As a child, what job did you want to have when you grew up & why?

I wanted to work in construction. I was fascinated by the equipment -- its power and the speed -- seemed to easily create amazing large structures, e.g., bridges, skyscrapers. I spent many days practicing in my sandbox with my Tonka construction trucks and girder and panel building set. It is truly gratifying to grow up building bridges, climbing scaffolding and working on various construction projects. I quickly learned construction is not easy and how truly complex it is to

make it right.

What do you see as the biggest energy challenge?

Finding a reliable, renewable energy-dense source of energy that will minimize the impact to the environment.

Tell us about the relationships you've developed with AFCEC's Energy Directorate.

AFCEC's Energy Directorate has so many great professionals that are true technical experts in the field. It's a great team to be on and everyone is a pleasure to work with.



AFCEC delivers specialized energy manager training

By Emily MifsudAFIMSC Public Affairs

The Air Force Civil Engineer Center's Energy Directorate provides a variety of training opportunities for energy managers to ensure the team is ready and capable of providing energy resilience across the Air Force. While there is no designated energy manager career path, the Energy Directorate delivers continuous training to support new and seasoned energy managers and build a cohesive and well-informed enterprise.

AFIT Courses

The Air Force Institute of Technology's WENT 466 Facility Energy Manager course offers tools and resources for new energy managers to ensure they can make informed energy decisions for their installations. Participants learn from senior Air Force leadership and experienced energy managers who share their extensive knowledge on energy policy, legislation and responsibilities.

Energy managers receive 'hit the ground running' information to gain the ability to balance daily work while keeping a strategic eye on making the installation more energy resilient. Thirty-five base energy managers from across the globe successfully completed the 2021 virtual training class.

The AFIT WENT 464 Certified Energy Manager Course provides energy managers the opportunity to earn a Certified Energy Manager certification. Attendees receive fundamental knowledge and tools to understand and apply energy and water management, technology and conservation principles related to Air Force installations.

AFIT courses are conducted by the Association of Energy Engineers with AFIT providing administrative support, while the Energy Directorate provides funding and student approval oversight ensuring content is consistent with the Air Force Energy Management program. Due to Covid-19 protocols, AEE recently



converted to virtual class settings. In FY21, AFIT contracted seven classes to accommodate 30 Air Force students.

The WMGT 423 Project Programming Course presents students with an overview of project planning and programming while enabling them to define project requirements, determine work classification, select appropriate funding avenues and develop programming documents. This course is ideal for project programmers, project managers, portfolio optimization element chiefs and program development section chiefs, many of whom also serve as energy managers.

AFCEC's energy team plays an active role in the course by providing training on energy project programs and third-party investments including Energy Resilience and Conservation Investment Program, Facilities Sustainment, Restoration and Modernization, Energy Projects, Energy Savings Performance Contracts and Utility Energy Savings Contracts.

NexGen IT Database

NexGen IT is an integrated enterprise asset management system that provides cost accounting, energy, operations, material control, project management and real property capability. It standardizes processes and supports compliance mandates while providing data transparency for agile decision-making across the enterprise and replaces sun-downing legacy systems.

AFCEC's functional management office provides initial deployment training to energy managers while the Energy Directorate's measurement & analysis division, or CNA, offers on-going and new energy manager training. Utilizing a comprehensive NexGen IT Energy Reference Guide and Data Standards, CNA energy managers receive one-on-one and group sessions through virtual trainings with step-by-step guidance as they learn to use the program or need a refresher. The NexGen IT database captures critical information for the Annual Energy Management & Resilience Report and Compliance Tracking System and supports the installation utility reimbursement program.

Bi-Monthly Energy Manager All-Call

The Energy Directorate recognized the need to provide a systematic two-way communication forum for energy professionals across the Air Force enterprise. The Bi-Monthly Energy Manager All-Call was established to provide information and training for the overall energy team. Each session routinely sees 150+ participants from SAF, AFIMSC, AFCEC and installations.

Data Decision Dashboard Tool (D3T)

The Data Decision Dashboard Tool, or D3T, is an interactive analytical tool that displays multiple energy related perspectives. The D3T pulls authoritative data from NexGen IT, sustainment management systems builder and Air Force Weather into a display of various dashboards, allowing energy managers to visually identify energy hot spots, consumption spikes and trends. As more information is entered into the databases the tool will become more useful for each installation.

"The various training programs provide forums allowing for two-way communication with new and seasoned energy managers at all levels of the enterprise," said Deven Volk, Management and Analysis division chief. "The combined efforts help the energy enterprise identify and implement solutions to improve installation energy resilience and support mission assurance."

To learn more about the Energy Directorate's training programs, contact Deven Volk at deven.volk.1@us.af.mil.

Air Force GridEx VI Exercise

By SAF/IEE Energy Team

Every two years, the North American Electric Reliability Corporation holds GridEx, a tabletop simulation of various attacks on the United States. On Nov. 16-17, SAF/IEE led over 50 Department of the Air Force observers from 20 bases, offices and organizations across the country in the biannual exercise.

The goal of GridEx VI was to present observing installations with different types of scenarios to help them determine if proper plans are in place in case of disaster. During the planning phases, SAF/IEE adjusted the exercise scenarios, known as "injects," to focus on the denial of services (e.g., electricity, natural gas and internet) to ensure the injects were applicable to observing installations and their associated utility providers.

The exercise portion of GridEx VI focused on two main areas: physical attacks



on energy and utility generation assets that disrupt generation and deny service to customers, and cyber-attacks that allow adversaries to gain access to key facilities and assets with the intent to cause harm. In addition, the exercise simulated the effects on both cyber and physical security of bases and their surrounding community due to social media misinformation and the resulting civil unrest. Over the course of the two days, the injects built off each other and the effects of the attacks and civil unrest compounded causing greater

impact throughout the exercise.

The Department of the Air Force uses exercises such as GridEx VI to help test installation energy resiliency and preparedness for events that could have an adverse effect on mission execution. An added GridEx benefit is the dialogue generated about how a base or organization responds to enemy attacks.

For questions about GridEx VI, contact the SAF/IEE POC, Christian Paasch at christian.paasch.1@us.af.mil. 🕒

New Executive Order: climate resilience and federal sustainability

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By Emily Mifsud AFIMSC Public Affairs

Tyndall Air Force Base, Florida — President Joe Biden recently signed an executive order to demonstrate how the United States will tackle the climate crisis through federal sustainability.

The executive order #14057, "Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability," was signed into action on Dec. 8, 2021, which outlines how the U.S. will reduce emissions across federal operations, invest in American clean energy industries and manufacturing, and create clean, healthy and resilient communities. It demonstrates how the U.S. government will lead by example to provide a strong foundation for American businesses to compete and win globally in the clean energy economy.

Five goals have been outlined to form the pillars of the executive action:

- 100% carbon pollution-free electricity by 2030, at least half of which will be locally supplied clean energy to meet 24/7 demand.
- 100% zero-emission vehicle acquisitions by 2035, including 100%

zero-emission light-duty vehicle acquisitions by 2027.

- Net-zero emissions from federal procurement no later than 2050, including a Buy Clean policy to promote use of construction materials with lower embodied emissions.
- Net-zero emissions building portfolio by 2045, including a 50 percent emissions reduction by 2032.
- Net-zero emissions from overall federal operations by 2050, including a 65 percent emissions reduction by 2030.

Five additional principles are included for the federal government:

- Achieve climate resilient infrastructure and operations;
- · Build a climate and sustainabilityfocused workforce;
- Advance environmental justice and equity;
- Prioritize the purchase of sustainable products, such as products

without added perfluoroalkyl or polyfluoroalkyl substances;

 Accelerate progress through domestic and international partnerships.

Federal agencies and military installations across the country are taking action to implement the executive order, including the Air Force's Civil Engineer Center's Energy Directorate. The team is responsible for the development and implementation of mission-critical energy solutions for power and water at every installation enterprise-wide.

"The Air Force is committed to achieving mission assurance through energy assurance and these goals and principles provide guidance for us to align our own energy resilience goals with the new executive order," said Dan Soto, AFCEC Energy director. "We will continue to optimize energy resilience through implementation of clean energy projects enterprise-wide."

View the Executive Order



The Energy
Directorate sends
a warm farewell
to two of our
colleagues!
Congratulations
to Mark Correll,
Deputy Assistant
Secretary of the
Air Force, and
Tim Pugh, AFCEC
Energy AMP
manager on their
well-deserved
retirements!



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





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Please send your comments, story ideas and photos to afimsc.pa.workflow@us.af.mil.







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