

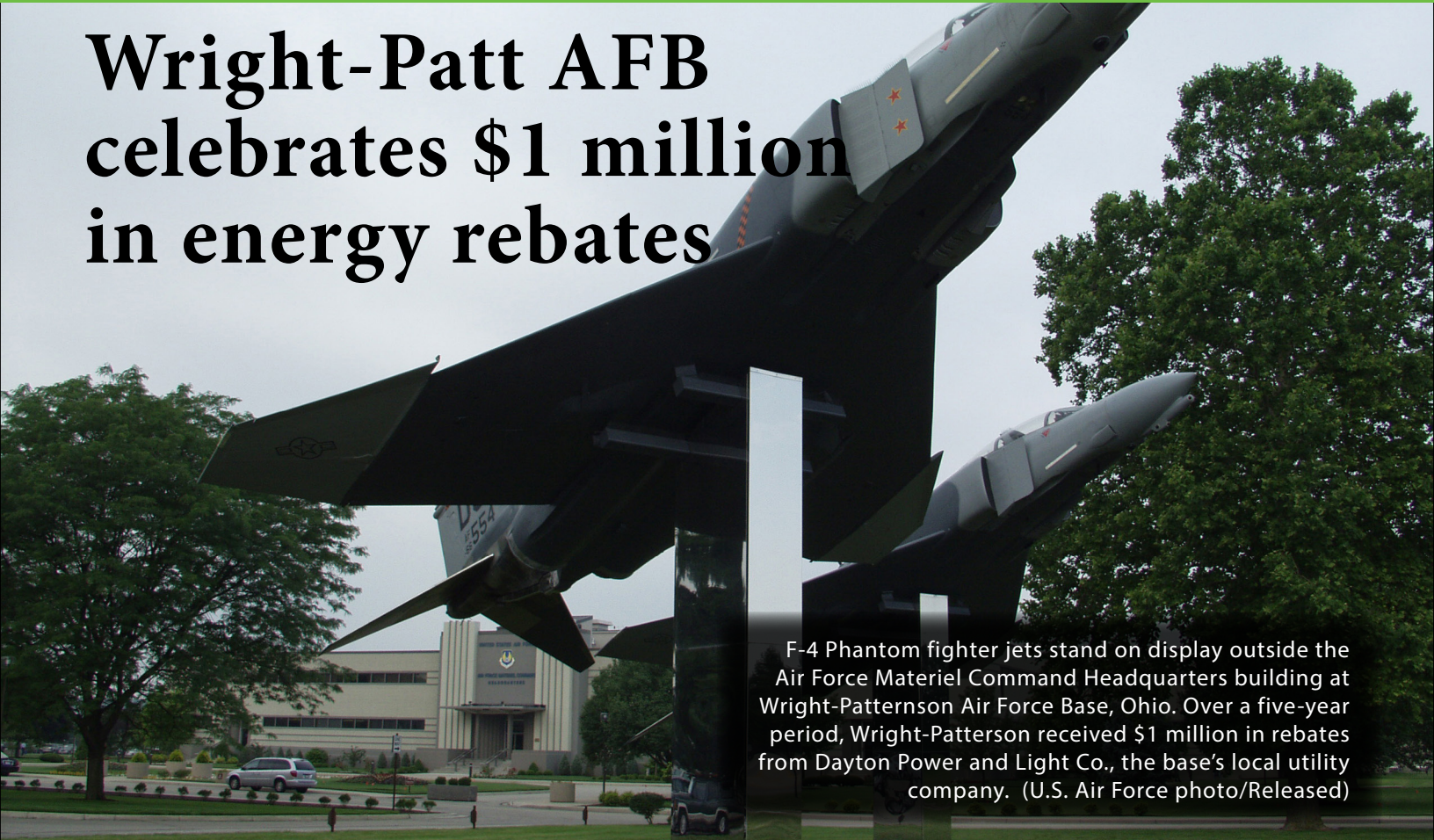
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Wright-Patt AFB celebrates \$1 million in energy rebates



F-4 Phantom fighter jets stand on display outside the Air Force Materiel Command Headquarters building at Wright-Patterson Air Force Base, Ohio. Over a five-year period, Wright-Patterson received \$1 million in rebates from Dayton Power and Light Co., the base's local utility company. (U.S. Air Force photo/Released)

By Amy Rollins
Wright-Patterson AFB Skywrighter Staff

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – Airmen here know how to observe October as National Energy Action Month in many different ways – a million of them, to be exact.

The base kicked off the annual special observance Oct. 5 by celebrating the \$1 million it has saved in rebates from the Dayton Power and Light Co. through multiple energy management projects

affecting 100 buildings. The base is DP&L's largest customer.

Col. John Devillier, 88th Air Base Wing commander, received a ceremonial large rebate check and a trophy from Tom Raga, DP&L president and CEO, during the base's Energy Action Month kick-off. The expansive energy fair, next to the parking lot of the Tennis Club, Bldg. 90, Area A, included booths, vendors and free frozen Ritter's custard provided by DP&L.

"Today is really a celebration of the

partnership we have with DP&L when it comes to energy usage," Devillier said. "Wright-Patterson Air Force Base is the third-largest user of utilities in the United States Air Force. For the last several years we've had a number of initiatives to help save energy."

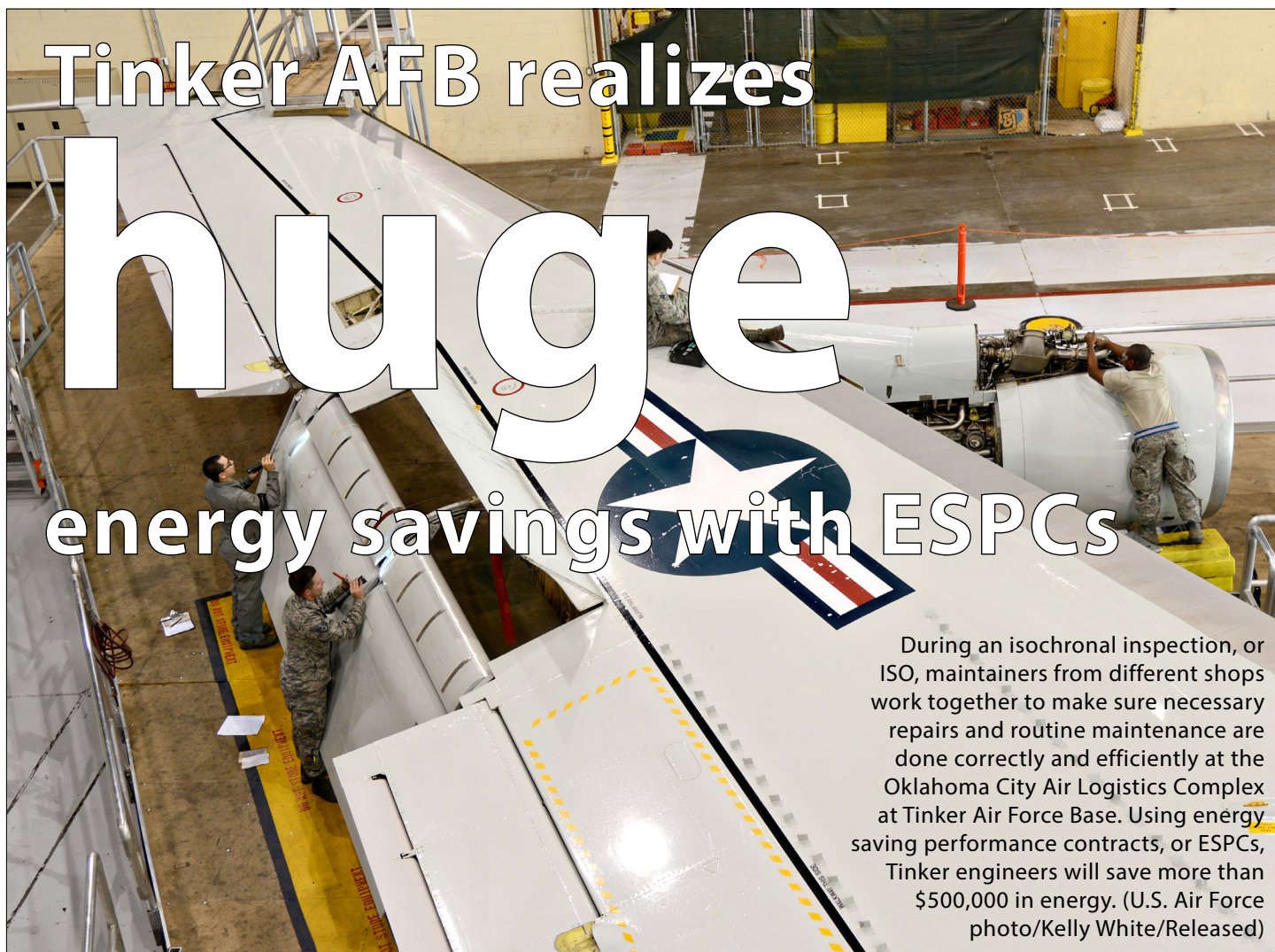
The colonel pointed to several projects, but especially highlighted how individual users can take a hands-on approach to saving energy dollars. Participation in the UnPlug It Campaign

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- Junior energy officer makes a difference
- ESPCs continue making progress





During an isochronal inspection, or ISO, maintainers from different shops work together to make sure necessary repairs and routine maintenance are done correctly and efficiently at the Oklahoma City Air Logistics Complex at Tinker Air Force Base. Using energy saving performance contracts, or ESPCs, Tinker engineers will save more than \$500,000 in energy. (U.S. Air Force photo/Kelly White/Released)

By John Parker
72nd Air Base Wing Public Affairs

TINKER AIR FORCE BASE, Okla. – Base civil engineers here are on track to reap more than \$500,000 in energy and water savings when the final figures for fiscal year 2015 are tallied, according to base officials.

The home of the heavily industrial Oklahoma City Air Logistics Complex is projected to exceed the Air Force's 3 percent energy cutback goals for October 2014 through September 2015. Results for the final two months of the fiscal year are pending.

The estimated savings is good news during Energy Awareness Month at the base that is the Air Force's largest single-site energy user.

New technologies have reduced energy and water use significantly, but those can only go so far, said Al Romero, base energy manager with the 72nd Air

Base Wing Civil Engineer Directorate.

"It's up to each and every person on the base to do their part as far as energy conservation," Romero said. "Just be aware of the situation around you and try to conserve energy wherever possible. It's extremely important and it can go a long way."

Tinker energy managers have racked up a number of major successes in the last year with energy efficiency projects, Romero said.

Besides Department of Defense conservation funds, the base uses energy saving performance contracts, or ESPCs, to hire private-sector companies for energy efficiency projects, Romero said. The companies secure private funding for the projects and earn revenue from the base's cost savings.

Energy efficiency company Honeywell completed a steam decentralization project this year that reduced Tinker's

natural gas consumption by 30 percent. The base's old and leaky steam pipe system was replaced with steam generation and other direct heating methods at dozens of facilities.

The Tinker Energy Team is preparing to launch a new ESPC that will affect all facility managers, Romero said. The ambitious project aims to improve energy efficiency in buildings, address old water, sewer and infrastructure problems and install renewable energy resources, such as wind, solar and alternative fuels, to upgrade the base's resiliency to withstand interruptions.

"We have a huge opportunity coming up in the near future in the fence-to-fence energy savings performance contract to get Tinker through a phase of cleaner energy and more energy security," Romero said. "It's a huge challenge and a lot of work, but once you get it started and once it gets going, it just carries itself."

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means individuals unplug devices that won't be used over the weekend or during leave, or connect them to a device that shuts off power automatically.

"We can save almost \$5,000 over a long weekend by unplugging unnecessary equipment like monitors, printers and small electronics," Devillier said. "By unplugging it, you're helping make that little bit of a difference in reaching another rebate."

"There is so much we can do individually and that's what we're trying to target here at Wright-Patterson," he said. "There are things that we miss. This is a large installation."

He said he is proud of people's participation not only as the base commander, but as a fellow taxpayer.

"This is our money – yours and mine – that we are trying to save. It's a concerted effort for everybody on the base," he added.

One of the commander's top five priorities is to save energy dollars so those monies may be directed elsewhere, which is "particularly important during lean fiscal times," he said.

Certain mission areas on base must never fail, lest they fail the warfighter down range, Devillier said.

"If those fail, we could cost somebody his or her life," he said. "We have to keep the lights on. We have to keep the electricity going. We have to keep that supercomputer going at the Air Force Research Laboratory. We have to keep the computers going at the National Air and Space Intelligence Center because

somebody's life down range might depend upon it. That is how important this relationship is."

Raga said he believes cooperation is important in ensuring reliable energy.

"We have a longstanding partnership with Wright-Patterson Air Force Base to serve you as you serve our country," Raga said. "An important responsibility we have to our customers is to make sure we're delivering safe and reliable power."

"We're not satisfied with the status quo at DP&L. You can expect us to continue investing, upgrading and strengthening the electrical system here on base," he added.

Investments DP&L is planning with base personnel are:

- Modernizing substations with digital relays;
- Upgrading telecommunications for enhanced substation monitoring and distribution feeders that come into the base;
- Exploring opportunities for battery storage, solar and other alternative energy sources at key base facilities.

"On a base scale, Wright-Patterson is truly a savings champion when it comes to protecting the environment and adopting energy saving measures," Raga said.

With the projects it has implemented, the base expects to realize savings of up to 16 million kilowatt hours annually. The environmental impact is equivalent to powering 1,562 homes, taking 2,391 cars off the road and preserving 9,310 acres of forest.

Tom Tatham, DP&L's director of strategic accounts, thanked the 88th Civil Engineer Group's Energy Management Team members and others for their work. He thanked the following vendors for their participation, too: Schneider Electric, Wesco, Red Leonard and Richard's Electric Supply Co.

"We want to celebrate that we're the first customer of DP&L's to (hit the million-dollar rebate mark). All of this money is going to aid the base with other priorities," said Noah Fillian, energy engineer, Civil Engineering Energy Management Team.

Updating both interior and exterior lighting is one of the most effective money-savings projects, Fillian said.

"You really want to direct your efforts toward equipment that is running at all hours," he said.

Other cost savings have been achieved through upgrading HVAC and air conditioning systems, and building envelope projects involving new windows and roof systems.

Fillian has advice for home energy consumers to look at their lighting.

"Today's LED bulbs use one-tenth of the energy that incandescent bulbs do. Look at your HVAC system. Make sure your air returns and filter are clean. Any equipment with an Energy Star is key."

At center, Col. John Devillier, 86th Air Base Wing commander, Wright-Patterson Air Force Base receives a ceremonial rebate check from Tom Raga, Payton Power and Light Co. president and CEO Oct. 5. (U.S. Air Force photo/Brian Brackens/Released)



A unique perspective

Capt. Aaron Zorn is a licensed professional engineer, or PE, and a project management professional, or PMP. Since beginning work at the Air Force Civil Engineer Center's Energy Directorate July 15, he has been fast to share his professional and military knowledge with other engineers. As the first person to fill this new position, Zorn and the directorate have seen benefits from having a junior officer on the staff.

What kind of benefits come from getting professional credentials?

It forces you to continue professional development because once you get those credentials, you have to maintain them with professional development hours. So, if I am a commander and I want to make sure my junior engineers keep their tool set sharp, having them get into the PE process will push them into maintaining their skills. Since the Air Force doesn't require continuous engineering development right now, that would be sort of an ad hoc benefit.

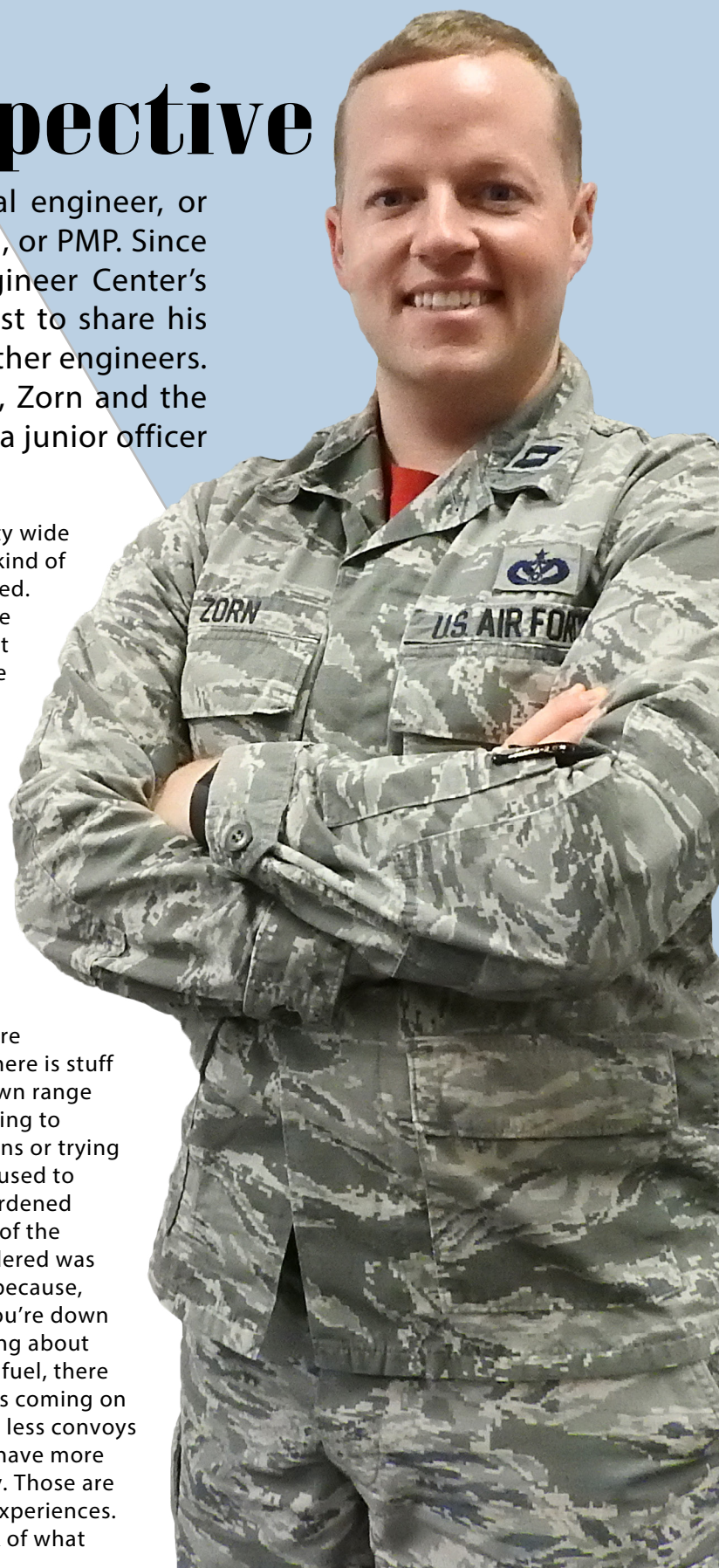
Also, a lot of what we do is working with contractors and civilians. What happens is, they have been working on a project for 20 or 30 years and you come in after a permanent change of station. Where does your credibility lie? If you have those letters after your name, everyone will realize where you stand and what your experience is. It is a distinguisher other than your rank. In situations where we need to cross over into the civilian or corporate world, those credentials will carry over with you. Your rank will not.

What advice do you have for other junior engineers looking to pursue credentials?

It might seem like you need a lot of experience for these credentials,

but there is a pretty wide aperture on what kind of experience you need.

It is not gaming the system and it is not lying. Some people might think that if I was not doing stress calculations on beams, then I was not doing engineering; but there are a lot of things that can be considered engineering. There are also a lot of things that are energy focused. There is stuff we were doing down range where we were trying to consolidate missions or trying to put things that used to be in tents into hardened facilities. And one of the benefits we considered was energy efficiency because, especially when you're down range, you're talking about less fuel. With less fuel, there are less contractors coming on base and there are less convoys being run, so you have more security and safety. Those are all energy-based experiences. It was not the bulk of what



I cited in my application, but it did count toward my final total. I think if more junior officers were mentored on the credentialing process, they would realize they have more experience than they think they do. It is very achievable.

Once you decide to get credentialed, my next piece of advice is to get involved with a professional organization like the Society of American Military Engineers. They will help you through the credentialing process and many groups offer free professional development courses. Some may even have a reimbursement program for getting licensed. If you need help with the application or questions about which study books to buy, a group of professionals who have already been through it is the best asset to have.

As a junior officer and base civil engineer, what are the benefits of working in energy?

Energy is becoming and will soon be the thing that is talked about in every situation. You want to talk about world politics? You are talking about energy. You want to talk about security? You're talking about energy. When you talk about, not only the pricing of fuel, but also the pricing of food, the housing market or transportation, any of those conversations are going to be dealing with energy.

Energy is the fastest growing body of knowledge that is being demanded from any professional, but even more so from a professional engineer. What I've learned over the years is that not a lot of people speak the language. When a commander asks, "how much energy do I use?" the correct response should be "what do you mean? How much electricity? How much gas? How much I use or how much I pay for?" The more fluent you become in energy, the more you can participate in those conversations. If you are developing an up-and-coming engineer, you need to be arming him or her with knowledge on budgets, sustainability, materials, scheduling and you should talk about energy.

For a junior officer, energy is one

of the more "wide open" jobs in the career field, which gives junior officers the freedom to accomplish more. It is currently undermanned, so, if you are a lieutenant or a captain, and you come into an energy job with ideas on how to save money, you are going to have that ability to develop projects and submit them for funding. You can call the local utility companies to ask about programs they offer with rebates or reimbursements or energy-saving. And even though we do this at AFCEC, you can deal with utility rates. Learn to read your electricity bill and recoup some of what you were charged for. It is really awesome for a young officer to be able to walk into a program that is, in many ways, undefined.

If you want to try out new technology, you can do that. It does not have to be a million-dollar investment either. At the base level, we once had a vendor come to us with a new material to coat the

...there are experiences on the bases that just cannot be replaced with anything else.

outside of a building that would strengthen the building's thermal properties. We got some money together, painted one side of a building with it and took readings from it to learn about the new product. If you want to come in and take off with something, energy is ripe for the picking.

What have you learned since you started working at the energy directorate?

The first thing I did was see how decisions are made here and ask how they were made when I was at the base level. I remember sitting back at the base and thinking "the things we are doing don't make any sense," and I was able to go to the personnel here and ask them why and get those answers. It gives you a lot of perspective to know why things are done and the kind of hurdles they

have. If you think there are a lot of obstacles at the base, you should see it at a higher level.

At the staff level, you get to hear from your leaders more directly. Hearing a brief from Mr. Randy Brown or Ms. Miranda Ballentine or Mark Correl, these are all names that seem so distant when you're at the base level. Go to staff, and all of a sudden, those people are a lot closer. Coming to this level is a highly necessary step to being a well-rounded officer because you get all of those.

As one of two active duty military members at AFCEC/CN, what do you bring to the team?

What I bring is practical experience for how AFCEC programs will be used. For example, with the advanced meter reading system, a civilian with limited experience at the base level might come out to the base and say, "You'll just run this program and then you'll just report this data." But as someone who has been there, I know that it might not be that simple. We could have someone hired to run that program and report that data but what if that person leaves? What if there's a hiring freeze and we can't get the spot filled? So we will fill that spot with Staff Sgt. So-and-so from the electric shop who has no experience with AMRS so we'll have to teach him this and tell him that and then now we have to go back and recover the data that we couldn't record for the last five months. Understanding those dynamics, I can correct those assumptions someone who hasn't been at the base level recently might have.

Even civilian personnel who have experience at the base level might have outdated views. Things like manning and budget can change really fast and even the things that I know from Luke Air Force Base, Arizona, three years ago can be outdated. That's why it's important to have that rotation here so I will be replaced by someone with an up-to-date view and we can maintain that rotation. The bottom line is there are experiences on the bases that just cannot be replaced with anything else.

ESPCs continue on path to success

By Jess Echerri
AFCEC Public Affairs

The U.S. Army Corps of Engineers' Engineering and Support Center released selection letters for an energy service company, or ESCO, to AECOM, Siemens Government Services, Inc. and Honeywell International, Inc. late last month.

The letters authorize the ESCO to proceed with preliminary assessment, or PA, for the energy saving performance contract, or ESPC, at Buckley and Schriever Air Force Bases in Colorado, and Los Angeles AFB, California, respectively.

Preliminary assessments for Schriever

and Los Angeles are due Dec. 3 and the preliminary assessment for Buckley is due Dec. 4.

The key elements of a preliminary assessment are the summary of the proposed project, description of potential energy conservation measures, estimates of proposed savings, general outline of measurement, verification approach and financial schedules.

"The central goal of the PA is a holistic survey of energy and water efficiency improvements that enable installation-wide solutions in support of federal mandates, including the potential to achieve or exceed 30-percent energy intensity reduction, 20-percent water usage reduction, as well as viable

renewable energy and energy security opportunities," said Oksana Joye, the USACE contracting officer for the ESPC at Buckley AFB, in a notice to AECOM.

Due to a constrained budget environment, the Air Force is utilizing third-party financing tools like ESPCs to accomplish energy-efficiency upgrades at its installations. Under the ESPC model, ESCOs compete to finance, design, construct and manage energy projects, and maintain the systems long-term. ESPCs range from 10 years to a maximum of 25 years, with the Air Force paying the ESCO back over the term of the contract from cost savings garnered by the higher efficiency equipment.

"The selection of these ESCOs is a significant milestone," said Les Martin, Air Force ESPC program manager at the Air Force Civil Engineer Center at Tyndall AFB. "These are the first Air Force ESPC opportunities to complete the ESCO down select process using the Army Corps of Engineers in Huntsville as an acquisition agent. We are looking forward to working with the installations, ESCOs and Huntsville as these projects are developed."

The Air Force Thunderbirds fly over Schriever Air Force Base, Colo., May 25. In the foreground are twin radomes of the Colorado Tracking Station, part of the Air Force Satellite Control Network. The Army Corps of Engineers in Huntsville, Alabama, released energy service company selection letters for energy service contracts at three Air Force bases including Schriever. (U.S. Air Force photo/Amber Whittington/Released)



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