OEI News

July/August 2015

SECURING ARMY INSTALLATIONS WITH ENERGY THAT IS CLEAN, RELIABLE AND AFFORDABLE

From the Desk of the Executive Director

Office of Energy Initiatives (OEI) Salutes Army Senior Leaders Upon Their Pending Departures

Our Army senior leadership is leaving office. Both the Secretary of the Army, Honorable John McHugh, and Army Chief of Staff, General Raymond Odierno, will be leaving their posts in the coming months. Both of these leaders are very instrumental and supportive of the mission of this office and their legacy will survive long past their departure from public service.

Secretary McHugh publicly announced the establishment of the Energy Initiatives Task Force (EITF) at the GovEnergy conference in August of 2011, with the specific objective of leveraging third party financing to bring large-scale renewable energy projects to Army installations. The Secretary leveraged this new task force when he made a commitment to the President the following April that the Army would deploy one gigawatt of renewable energy on our installations by 2025. Increasing resiliency on installations through effective energy solutions has been included as one of the Secretary's top ten priorities for the past four years. In October of 2014, he further formalized this as an Army concern by establishing the Office of Energy Initiatives as a permanent and enduring organization. This will ensure energy security for the Army remains a priority issue now and into in the future.

In my previous assignment as Special Assistant to the Army Acquisition Executive, I worked with

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the Chief, General Odierno, on the development and deployment of energy efficient and alternative energy generation systems for our troops in theater. "General O" clearly saw the increase to mission effectiveness as well as the reduction of exposure of our troops by reducing the logistical footprint of our operations. He made the connection to extending alternative energy generation to our installations and applauded that it could be accomplished without expending appropriated funds that would otherwise support our Soldiers. He used his office to influence examination of energy generation and utilization in his subordinate commands and made a truly significant impact in providing energy security and resiliency throughout the Army.

In closing, the Army does a much better job of planning and executing energy strategies as a result of the leadership of these two extraordinary public servants. General Odierno concluded every speech with the following: "The Strength of our Nation is our Army. The Strength of our Army is our Soldiers. The Strength of our Soldiers is our Families. This is what makes us Army Strong!" I would like to add that the strength of this office is our staff, both here at the OEI and at Army installations across the country and that our energy comes from our industry and community partners. This is what makes the Army POWERful. HOOAH!

– **Amanda Simpson**, Executive Director, Army Office of Energy Initiatives

Managing Cyber Security Risks

– **By the staff at Pacific Northwest National Laboratories, an OEI Support Team**

Cyber security continues to drive front-page headlines. News organizations are routinely reporting on personally identifiable information and government database breaches. Needless to say, the Office of Energy Initiatives (OEI) is working to ensure Renewable Energy Generation Systems (REGS) mitigate cyber security risks. The OEI News from November/December 2014 introduced

what the office is doing to proactively address cyber security using both industry standards for the commercial utility grid as well as required Army protections in coordination with the Army Chief Information Office (CIO/G6).

Today we provide additional information on the required Army protections to ensure long-term contracts/leases provide secure access to power on Army installations when it is needed most. The potential cyber risks associated with REGS vary widely. The primary risks are related to: the amount of renewable power generated, the level of REGS integration and coordination, and data security.

The OEI considers these and other factors when assessing the risk associated with all new renewable projects. For example, denial of service impacts are significant for projects that provide large portions of an installation's power. Increased integration and coordination of REGS with an Army electrical distribution system can lead to significant energy efficiency gains; however, this integration requires the integration of REGS and Army networks.

Once these networks are cross-connected, risks increase because malware can spread from the contractor's network to the Army's networks.

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Data security and management is also a key risk factor because the Army must ensure that energy use, personnel, and operations information is protected. The mosaic of Army operations and the data it keeps allows insight into more than we realize; therefore, we must protect today's mundane, uninteresting data so that it is not used to infer future Army operations.

The OEI is working with cyber security experts from the Department of Energy's Pacific Northwest National Laboratory (PNNL) to assess potential risks associated with REGS. A set of cyber security requirements is included in all OEI solicitations and contracts to mitigate the risks commensurate with the location. This graded approach helps ensure that additional protections are put in place for high-risk REGS projects without over-encumbering projects with lower risks.

These cyber security requirements establish a foundation for the developer's cyber security program that addresses software and services, access control, account and session management, authentication, security monitoring, supply chain management, and other standard cyber security practices. The assessment methodology, contract language and requirements for third-party cyber security programs are currently being coordinated with Army senior leader stakeholders for applicability to other energy projects outside the OEI and are expected to be publically available in late 2015. Timely attention to cyber security during the procurement of REGS is intended to provide a low cost way to increase the long-term security and reliability of clean energy on Army installations. OEI's attention to both energy security and cyber security support energy resiliency on Army installations as it becomes increasingly integral to operational effectiveness.

Project Updates

Fort Hood, Texas

Notice of Intent to Award (NOIA) Issued to Apex, Inc., for the Largest Hybrid Renewable Energy Project in the Army

On June 12, 2015, Defense Logistics Agency (DLA) Energy, in coordination with the Army Office of Energy Initiatives and Fort Hood, issued a Notice of Intent to Award (NOIA) to Apex Clean Energy, Inc. for a large-scale renewable energy solar and wind project to supply energy to Fort Hood, Texas.

The proposed project will have a capacity of approximately 65 megawatts (MW) alternating current (AC), ~76 MW direct current (DC) of renewable energy. The onsite solar system is expected to have a capacity of ~15 MW AC to support future installation energy resiliency. The offsite wind system will have a capacity of ~50 MW to support the project economics.

This is the Army's first hybrid (solar and wind) renewable energy project, first to include both on and off installation generation, and the Army's largest single renewable energy project to date.

Aerial view of the Fort Hood solar array location.

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Tooele Army Depot Solar and Wind Projects

On June 23, 2015, the U.S. Army Corps of Engineers (USACE) – Sacramento District, in close coordination with OEI and Tooele Army Depot (TEAD), issued a Request for Proposal (RFP) for a minimum 10 MW AC solar project on 274 acres of land at TEAD. A pre-proposal event was held on July 30, and the RFP is scheduled to close on August 24, 2015.

In addition, a large-scale renewable energy wind project is also being developed and 600 acres of land is available for the project at TEAD. On July 8, the Army issued a Request for Qualifications (RFQ) for a minimum 10 MW wind project which will remain open until September 27. An Industry event was held on July 29. An RFP is expected to be issued in the Fall of 2015.

Electricity from both of these projects will be available to the electric grid.

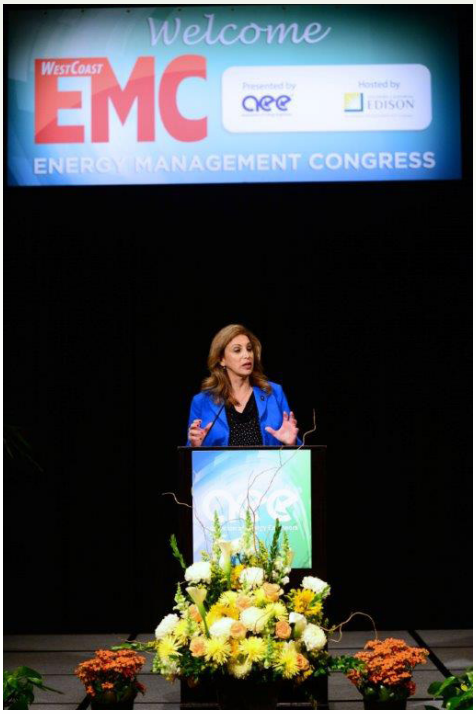
Fort Irwin, CA Solar Project

The development of large-scale renewable energy projects does not always proceed as anticipated, even when all parties are committed to the success of the project. Regulatory, environmental, contractual and/or other challenges that occur during certain phases of project development can delay or cause reconsideration of a project, as experienced in the past with potential projects in several states. At times, these potential projects encounter unforeseen challenges that lead to significant delays in the acquisition process or even deactivation. If a project is deactivated, it is monitored and reevaluated as conditions change. In the case of the proposed ~15 MW solar project at Fort Irwin, lengthy and unavoidable delays in the environmental assessment process resulted in the Defense Logistics Agency – Energy (DLA-E) publishing an amendment to close the existing Request for Proposals. However, because energy security at Fort Irwin is an imperative, the Army intends to issue a new solicitation upon completion of the environmental assessment as required by the National Environmental Policy Act.

Engagements

33rd West Coast Energy Management Congress

On June 3, 2015, Ms. Amanda Simpson, OEI Executive Director, was the keynote speaker for the Association of Energy Engineers 2015 West Coast Energy Management Congress (EMC) in Long Beach, CA. Ms. Simpson presented "Army Energy Initiatives" for Army Soldiers, installations, aircraft and vehicles so that the Army is properly prepared, equipped and supported to accomplish the mission of protecting our Nation. Approximately 2,500 participants from the energy industry attended the event which is designed to provide leaders in government and industry the latest developments in the energy field, explore new energy efficient technologies, promote economic job growth and share innovative cost-conscious project implementation strategies.



OEI Executive Director Ms. Amanda Simpson delivers remarks at the 2015 EMC.

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Twilight Tattoo

On July 8, Honorable Katherine Hammack, Assistant Secretary of the Army (Installations, Energy, & Environment) hosted a reception for approximately 100 attendees (including industry leaders, utility CEOs, Army executives, and Members of Congress) at the Army's Twilight Tattoo at Fort Myer, VA. The Twilight Tattoo is an hour-long, live-action military pageant featuring Soldiers from The 3rd U.S. Infantry Regiment (The Old Guard) and The U.S. Army Band "Pershing's Own". The Twilight Tattoo is a glimpse into American history through performances by The U.S. Army Blues, vocalists from The U.S. Army Band Downrange and U.S. Army Band Voices, The Old Guard Fife and Drum Corps, and The U.S. Army Drill Team. The Twilight Tattoo began more than 300 years ago as British troops were summoned from the warmth and hospitality of local pubs by a bugle and drum call to return to the barracks. The troops knew the call to mean "taps off" and minutes later they were back in their tents. The modern-day call is known as "Tattoo" and during basic training the call signals the time for quiet.

Unfortunately, the weather did not cooperate and the outdoor public portion of the event was canceled that evening. For information on attending any of the 2015 Twilight Tattoo performances or to see the schedule, visit http://twilight.mdw.army.mil/schedule.

DOE Energy Exchange

On August 10-14, Army, Department of Defense, and industry stakeholders will attend the Department of Energy's (DOE) Energy Exchange, in Phoenix, AZ. This training opportunity is organized by the U.S. Department of Energy's Federal Energy Management Program (FEMP) through Oak Ridge National Laboratory (ORNL) to help meet federal and agency-specific goals for reductions in energy, water, petroleum use, and greenhouse gas (GHG) emissions.

The Energy Exchange brings together subject matter experts in policy, technology, and facility operations to share successful business practices and firsthand experiences. It connects federal employees with thought leaders who drive change and understand the challenges and opportunities of energy consumption, sustainability, energy efficiency, and energy security in and across federal agencies. Attendees and speakers at this year's Energy Exchange will include Honorable Katherine Hammack, Mr. Richard Kidd, Deputy Assistant Secretary of the Army (Energy & Sustainability), as well as OEI Executive Director Ms. Amanda Simpson.

In conjunction with the Energy Exchange, the Assistant Chief of Staff for Installation Management (ACSIM) will hold an advanced training workshop for installation and energy managers. Key Army leaders will provide an update on energy and sustainability priorities, the development of third party financed small and large-scale renewable energy projects, best practices and the recently published Energy Security and Sustainability (ES2) Strategy. The ES2 Strategy was signed by the Army Vice Chief of Staff, and the Under Secretary of the Army in May and is focused on building the overall resiliency of Army installations as well as guide the Army's use of energy, water, and land resources well into the 21st Century.

2015 APRISE Event

On August 24-27, Honorable Katherine Hammack and OEI Executive Director Ms. Amanda Simpson will participate in the 2015 Asia Pacific Resilience Innovation Summit & Expo (APRISE). APRISE convenes business, technology and policy leaders across the global resilience pillars of energy, agriculture, water and security.

U.S. ARMY

OFFICE OF ENERGY INITIATIVES
Securing Army installations with energy that is clean, reliable and affordable

2530 Crystal Drive, 8156 C
Arlington, VA 22202
Phone: 703-601-0568

www.oei.army.mil