



Rear Admiral David Boone

I appreciate the invitation to be here today to talk about energy ashore; for those of you who are not tied to the Navy or the maritime forces, ashore basically refers to our bases. The Navy has 73 bases worldwide, and so the topic for this panel is to talk about

Rear Admiral David Boone reported as Director, Shore Readiness Division (N46) on the Chief of Naval Operations staff and vice commander of Navy Installations Command in 2010. He had previously commanded the Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic since 2008. Rear Admiral Boone graduated from California Polytechnic State University with a B.S. degree in civil engineering in 1982. Commissioned an ensign in 1983, he attended the Civil Engineer Corps Officer Basic Course and then reported for duty with the Seabees (NMCB-40). In 1987, he attended the University of California at Berkeley and graduated with a master of engineering degree in coastal engineering and an M.S. degree in construction management. He then attended the Navy Diving and Salvage Training Center in Panama City, Florida, and was designated a Navy diving officer in 1989. Rear Admiral Boone has served in a variety of sea and shore assignments. In 1996, he reported as commanding officer of a Seabee Underwater Construction Unit One. He was then stationed at U.S. Joint Forces Command as the deputy engineer from 1998 to April 2001. He then transferred to the White House Military Office as the director of the Special Programs Office in May 2001. Rear Admiral Boone became the first commanding officer of NAVFAC Marianas in Guam in 2003. He transferred to Naples, Italy, as executive officer of NAVFAC Europe – Southwest Asia in July 2005. In June 2006, he became the chief of staff to commander, Navy Installations Command. His awards include the Defense Superior Service Medal, the Legion of Merit (three awards), the Defense Meritorious Service Medal, the Meritorious Service Medal (two awards), the Joint Service Commendation Medal, the Navy and Marine Corps Commendation Medal (four awards), the Navy and Marine Corps Achievement Medal (two awards), and other service awards.

what we are doing in regard to energy and climate change. Before launching into that, I would note that your symposium agenda is quite impressive, especially when you look at all the aspects of the maritime forces that are touched by energy, everything from expeditionary to acquisition. There is virtually nothing that we do that is not touched by this topic. As I indicated, while this panel will focus on our bases, it has a lot of relevance beyond the DoD and the Department of the Navy because those bases invariably touch the greater civil infrastructure. So, it is more than a Navy issue. It becomes a national issue in terms of how we manage energy and climate change. The boundary at the base does not stop and end at the base from an energy standpoint. We are inextricably linked.

I have three great panel members who are going to talk to you about important aspects of using energy ashore. But to start things off, I want to share with you the Navy Shore Vision to provide overall context before we hear from the panelists.

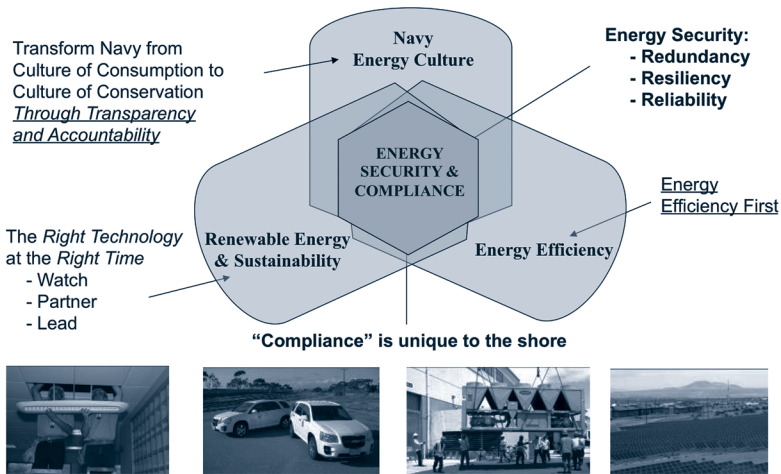


Figure 1. Navy Shore Energy Program

Figure 1 shows the Navy Shore Energy strategy. The centerpiece of that strategy is energy, security, and compliance. Unlike the tactical side, our bases have an obligation to satisfy a number of compliance measures levied by federal, state, and local governments as well as by the DoD and the Department of the Navy.

Thus, the strategy is centered on meeting that myriad of compliance requirements, many of which deal with reductions in energy consumption. Of course, energy security is part and parcel to that. How do we ensure uninterrupted capability, particularly where it centers on operational requirements of our bases? Those two pieces are really what the Navy strategy revolves around.

Aligned around that centerpiece are three focus areas. Of these, I think that Navy energy culture is a particular challenge. We have been working energy culture for many years in terms of education, but how do we take it to the next level? How do we really impart a change in culture, in how people think about their consumption? Toward that end, our next step is to link energy accountability to energy behavior through transparency. There are a number of examples of where we are pursuing this. We have a pilot program going on right now in Hawaii in our housing area. Up until now, many residents of government housing or public/private venture housing were not accountable for their energy consumption. Instead, the government typically pays for their utility consumption. Under the pilot program, if the residents exceed a specified energy consumption threshold, they are responsible for making up the difference, and if they go below that threshold, they get some financial reward back. This approach provides a way to link energy consumption to behavior; and so we are pursuing that in order to change energy culture.

Energy efficiency first is another of our key focus areas. We have a lot of infrastructure across our 73 bases worldwide, and so rather than chase technology from the beginning, we are trying to make our existing infrastructure more efficient. We consider that key to getting to a sustainable infrastructure that is financially viable.

Our third focus area is renewable energy and sustainability. It is the right technology at the right time. We do not want to chase things that are not mature yet, so we are patterning this according to the phrase “watch-partner-lead.” There are some technologies we are interested in, but we just want to watch the development as industry works through those; when they get to the right maturity, then we will be ready to jump in. There are likely to be some industries that we will want to partner with in order to further develop

a specific technology. And, in some cases, we will want to take the lead in coming up with the right technologies. This approach allows us to prioritize, focus resources, and make the right investments, because there are not enough resources to do everything.

Our first speaker is Mr. Jeffrey Johnson, who is going to describe how we integrate information systems as part of our shore energy program. Some of those systems exist today. More will exist in the near term. The Navy is very aggressively installing what we call the Advanced Metering Initiative (AMI), which will place meters in virtually every building on our bases. We are in the process of doing that, so the question is, when you meter everything, then what? What do you do with the information? What behavior does it change? Frankly, I think this touches on an even bigger national issue, namely: how do we integrate those legacy systems that provide a vast amount of information and what do you do with it? How do you integrate it?

Following Mr. Johnson's presentation, Captain Hugh Hemstreet is going to talk about the concept of operations; in particular, once you get all that data, how do you use the data to make good decisions? That concept is really in two pieces. The first deals with infrastructure issues: prioritizing what you do in recapitalization and maintenance. Then, the second deals with how those adjustments lead to culture change. And when we talk about culture, we view it in three separate pieces: (1) change affecting every individual on a base whether military, civilian, or contractor, (2) change affecting the leadership of our organizational commands, and (3) changes affecting our functions. As you all know, everyone now has a computer at his or her desk. If we look functionally at the IT business, are there things we can do that impart a culture change?

Finally, Dr. William Waugaman is going to talk about the Smart Power Infrastructure Demonstration for Energy Reliability and Security (SPIDERS). It is a mouthful, but it is really looking from the base outwardly to see how it ties into grid cyber security, microgridding, and smart gridding on a national level. As you will see, what we have tried to do is set up a structure that looks inward at how we operate at the base level and then looks outward beyond the base.