

Federal Energy and Water Management **AWARDS** 2014



**CDR John Anderson, Daniel Grimsbo, Daniel Lougen,
Timothy Stufft, Cory Wright**

U.S. Navy

**Public Works Department
Camp Lemonnier, Djibouti**

In FY 2013, the energy team at Camp Lemonnier, Djibouti implemented an air conditioning improvement project that saves 61 billion Btu and \$2 million annually. The Camp is located in one of the hottest inhabited places in the world, with temperatures of between 77 to 111 degrees Fahrenheit year-round and humid, salty, dusty air. In this harsh environment it is difficult to keep equipment operating at maximum efficiency.

The site generates all its own power from diesel generators, and the team recognized that generating power more efficiently would

make a significant, immediate impact on energy efficiency. They developed a project to reconfigure Lemonnier's energy production by eliminating the least efficient generators, consolidating loads, connecting the two power plants to remove the need for excess reserves and improve capacity, and operating only the most efficient generators when loads permitted. Additionally, 900 air conditioning units were replaced with higher efficiency units. Together these projects resulted in a 9% energy consumption reduction from the prior year, with a project payback of only 1.5 to 2 years.