

ATMOSPHERIC WATER GENERATION (AWG) TECHNOLOGY PROJECT

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT

PROJECT OVERVIEW

Potable water is a mission critical and competitively limited resource required to carry out military operations, missions, and trainings. The Department of Defense (DoD) relies heavily on host nations, surrounding landscapes and communities, and its own resupply chain to support potable water needs. The Texas Military Department (TMD) will be demonstrating Atmospheric Water Generation (AWG) technology with the capacity to serve as a secure renewable source of potable water for forward operating bases and contingency sites as well as for net-zero and sustainability efforts for fixed military installations.

BENEFITS

The primary stakeholders for this project include the National Guard Bureau, Army, and Air Force however, the AWG technology will benefit the entirety of the DoD organization in mission readiness, provide cost savings, and impact net-zero and sustainability initiatives. The technology will be demonstrated to decrease the need for resupply allowing resources to be reallocated for other purposes; reduce the risk of harm to soldiers involved in the transport of potable water due to a decrease in resupply; and reduce the risk of forward operating bases and contingency sites to rely on other sources for potable water.

PATH FORWARD

TMD will demonstrate the AWG technology as a renewable source of potable and non-potable water to support military trainings and requirements for forward operating bases, contingency sites, and Defense Support Civil Authority (DSCA) missions as well as water requirements for sustainability, netzero, and security at fixed installations. Data and user feedback will be collected on the performance of the technology. The information collected will be used to develop a field operation manual, best management practices, and lessons learned on the use of the technology and its capability or non-capability to support military missions.



Water Production Process



AQ 5000 at Camp Mabry

FOR FURTHER INFORMATION:

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT (NDCEE): http://ndcee.army.mil/

TEXAS MILITARY DEPARTMENT: https://tmd.texas.gov/