

TECHNOLOGY

Al-H₂O technology harnesses the significant electrochemical energy stored in aluminum metal to safely deliver an unprecedented energy density for undersea power generation. Al-H₂O provides safe, cost competitive, depth-tolerant, energy dense solutions for a variety of undersea applications.

Al-H₂O energy modules offer a 2-10x improvement in endurance vs. alternative chemistries and can be integrated into dynamic applications, such as UUVs, and static applications such as seabed systems or expendables in the water column. Our systems can be placed in stasis and lie dormant in storage or at the seabottom until needed, or activated in sequence to support evolving mission requirements.

Al-H₂O energy modules are scalable and modular to enable rapid, cost effective customization. Al-H₂O produces a hydrogen byproduct that has been verified as inert by the Naval Warfare Center Carderock across a variety of abusive conditions that would cause lithium-ion or even silver-zinc batteries to fail dangerously. Modules are safe for deployment via submarine and can be hand carried on commercial flights.

CHEMISTRY

Al-H₂O

