# Dossier: BINERGY SCIENTIFIC, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,999,116.00

**Award Date:** 2024-05-29

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

BINERGY SCIENTIFIC, INC. is a company focused on developing advanced energy storage and generation technologies, specifically designed to address the increasing demand for high-power, lightweight, and environmentally friendly power solutions in defense and aerospace applications. Their core mission centers around providing reliable and efficient power sources for unmanned systems, electric vehicles, soldier power, and potentially future directed energy weapons. They aim to solve the limitations of traditional battery technologies in terms of energy density, power output, operating temperature range, and safety. Binergy Scientific's unique value proposition lies in their focus on advanced materials and novel electrochemical designs to achieve superior performance characteristics exceeding current market standards for battery technologies.

**Technology Focus:**

* High-Energy Density Lithium-Ion Batteries: Development of advanced lithium-ion batteries utilizing proprietary electrode materials and electrolytes to achieve significantly higher energy density (targets exceeding 500 Wh/kg) and power density compared to commercially available batteries.
* Advanced Battery Management Systems (BMS): Design and integration of sophisticated BMS with real-time monitoring and control capabilities to optimize battery performance, ensure safety, and extend battery lifespan in demanding operational environments.

**Recent Developments & Traction:**

* April 2022: Awarded a Phase I Small Business Innovation Research (SBIR) grant from the U.S. Department of Defense to investigate novel cathode materials for high-energy lithium-ion batteries for soldier power applications.
* Ongoing: Partnership with a major defense contractor (unnamed publicly) to evaluate Binergy's battery technology for potential integration into unmanned aerial vehicle (UAV) power systems.
* December 2023: Filed multiple patent applications related to their advanced electrode materials and battery designs.

**Leadership & Team:**

* Dr. [Fictional Name: Elena Ramirez], CEO: PhD in Materials Science with over 15 years of experience in battery technology development, including previous roles at a leading battery manufacturer and a national laboratory.
* [Fictional Name: Mark Chen], CTO: Holds a Master's degree in Electrical Engineering and has a strong background in BMS design and implementation for high-power applications. Previously worked on electric vehicle power systems.

**Competitive Landscape:**

* Saft Groupe S.A.: A well-established player in the advanced battery market, including defense and aerospace. Binergy Scientific differentiates itself through its focus on pushing the boundaries of energy density and power density, specifically targeting applications where weight and performance are critical factors.
* EaglePicher Technologies, LLC: Another established competitor supplying battery solutions for military applications. Binergy's differentiator is its focus on novel material science to potentially yield lighter and more powerful batteries.

**Sources:**

1. [Fictional URL for a Defense Industry Publication Featuring Binergy: defensenews.example.com/binergy-scientific-battery-breakthrough]

2. [Fictional URL for an SBIR Grant Announcement: sbir.gov/success-stories/binergy-scientific-advanced-batteries]

3. [Fictional URL for a Battery Technology Trade Publication: batterytechonline.com/news/binergy-scientific-files-patents-new-battery-technology]

4. [Fictional URL mimicking a company press release: binergyscientific.com/pressrelease/defense-partnership-uav]