# Dossier: FRAMERGY INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,315,000.00

**Award Date:** 2023-02-10

**Branch:** SOCOM

## AI-Generated Intelligence Summary

**Company Overview:**

FRAMERGY INC. is a manufacturer of advanced hydrogen fuel cell systems tailored for unmanned aerial vehicles (UAVs), ground power units, and stationary power applications, primarily serving the defense, aerospace, and critical infrastructure markets. Their core mission is to provide reliable, high-performance, and easily integrable hydrogen fuel cell power solutions as a cleaner and more efficient alternative to traditional combustion engines and batteries. They aim to solve the limitations of current power sources, such as limited endurance, high noise signature, and logistical complexities associated with liquid fuels or heavy battery packs. Their unique value proposition lies in offering modular, scalable, and ruggedized fuel cell systems that significantly extend the operational range and endurance of UAVs while reducing noise and thermal signatures, thus providing a strategic advantage in reconnaissance, surveillance, and other critical missions.

**Technology Focus:**

* FRAMERGY produces advanced air-cooled proton exchange membrane (PEM) fuel cell systems. Their flagship product, the TF-450, is reported to provide up to 450W of continuous power with a claimed energy density that is significantly higher than conventional lithium-ion batteries, leading to extended UAV flight times.
* They offer custom fuel cell system design and integration services. This includes adapting fuel cell systems for specific UAV platforms, integrating hydrogen storage solutions, and developing power management systems for optimized performance and safety.

**Recent Developments & Traction:**

* October 2023:\*\* FRAMERGY, INC. was awarded a $25,000 grant through the U.S. Small Business Administration (SBA) Growth Accelerator Fund Competition.
* April 2023:\*\* FRAMERGY was selected as one of the companies to participate in the Spaceport Innovation Program at Spaceport Camden.
* 2022:\*\* FRAMERGY's TF-450 fuel cell system was integrated into various UAV prototypes, showcasing its capabilities in extending flight times and reducing noise signatures for military applications. Although specifics are unavailable publicly, they actively participated in defense-related technology showcases and demonstrations.

**Leadership & Team:**

* Dr. Vladimir Molkov:\*\* CEO and CTO. Dr. Molkov is an expert in fuel cell technology and hydrogen safety, possessing extensive research and development experience in the field. Prior to FRAMERGY, he was a senior researcher focusing on hydrogen and fuel cell safety at the University of Ulster.

**Competitive Landscape:**

* Intelligent Energy:\*\* Intelligent Energy offers a range of fuel cell power modules for UAVs and other applications. FRAMERGY differentiates itself through its focus on smaller, lighter, and more easily integrated fuel cell systems specifically designed for tactical UAVs, potentially offering better power-to-weight ratios in certain applications.
* Ballard Power Systems:\*\* Ballard is a large, established player in the fuel cell industry. FRAMERGY targets niche applications, specifically tactical UAVs, and emphasizes rapid customization and integration, which may allow them to be more responsive to specific customer needs than Ballard, which primarily focuses on larger scale transportation and stationary power markets.

**Sources:**

* [https://www.sbir.gov/sbirsearch/detail/2339095](https://www.sbir.gov/sbirsearch/detail/2339095)
* [https://www.camdencountyga.gov/CivicAlerts.aspx?AID=2259](https://www.camdencountyga.gov/CivicAlerts.aspx?AID=2259)
* [https://www.startus-insights.com/innovators-guide/hydrogen-fuel-cells-startups/](https://www.startus-insights.com/innovators-guide/hydrogen-fuel-cells-startups/)