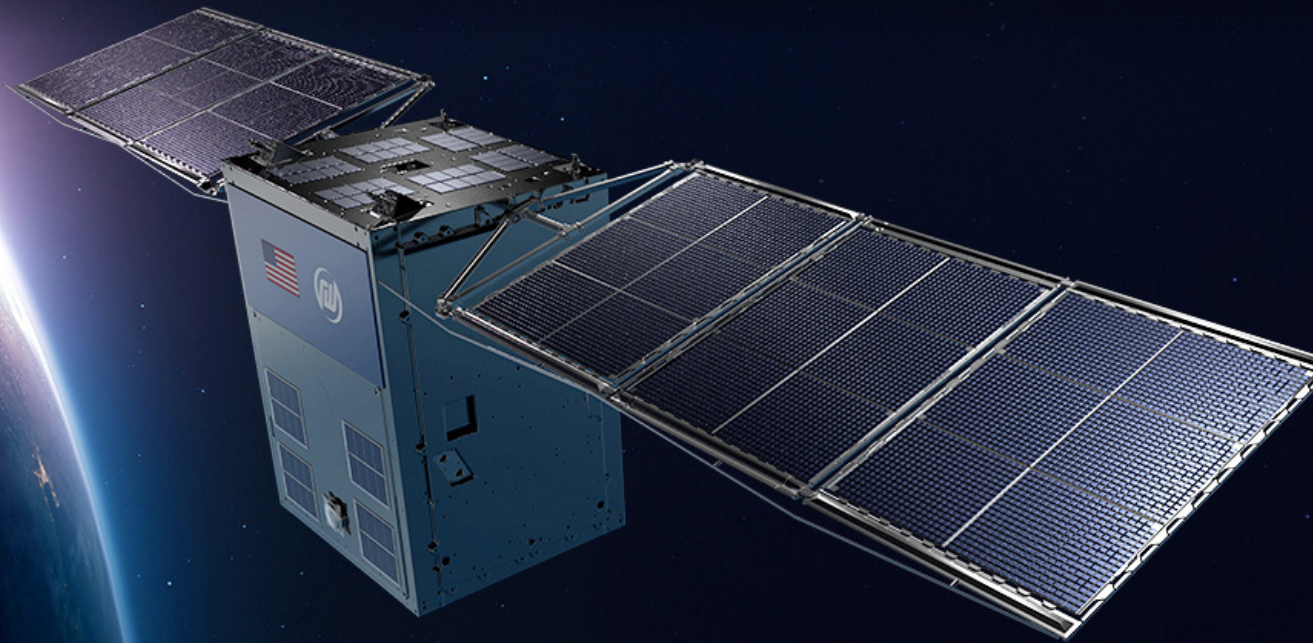




ENGINEERED FOR PERFORMANCE. DESIGNED FOR PRODUCTION.

Ensuring Mission Readiness with
Scalable Space Power Solutions



RDW.COM

Power is now one of the most significant limiting factors in space—shaping the space economy, the viability of deep space exploration, and national security as major geopolitical players race to establish energy dominance. Every function that happens in space depends on continuous, reliable power. Even more than propulsion or communications, energy availability determines both space system design and mission scope.

The nations that fortify their space power supply chains will ensure space sovereignty. Given these stakes, space power systems have emerged as a strategic advantage domain. Space power is a mission-critical capability, much like Artificial Intelligence (AI) or semiconductors. From satellites that provide Intelligence, Surveillance, and Reconnaissance (ISR) to electronic warfare payloads and other future systems that will become vital for defense—all these technologies depend on reliable energy generated in orbit. The power sources available underpin cislunar dominance, communications resilience, and space logistics networks.

“Demand for power in space is already robust and will only continue to grow at a rapid pace,” said Mike Gold, President of Redwire Space, in a statement reported by SpaceNews.

RELIABLE POWER FOR SMALL SATELLITES

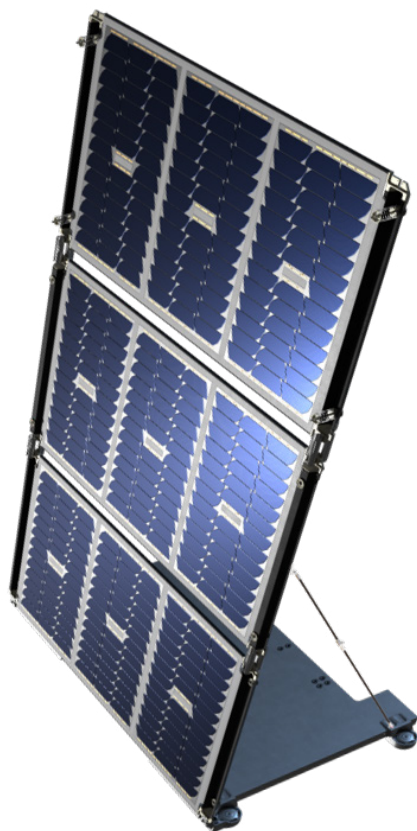
Small satellites are reshaping space activity by compressing development cycles, lowering per spacecraft cost, and enabling constellation economics. Customers can launch more spacecraft more frequently, accelerating coverage, resilience, and technology refresh without the

overhead of traditional large-bus programs.

Across commercial, civil, and national security missions, payload sophistication continues to rise. As space capabilities advance, power generation and stowed volume remain primary constraints, requiring spacecraft to deliver more energy within tight mechanical envelopes. As a result, there is significant customer demand for platforms that can scale efficiently across large numbers of spacecraft, accommodate variability in suppliers and configurations, and maintain low cost while supporting fast, predictable procurement cycles for constellation production.



ELSA Deployed in Orbit



➤ ELSA fixed wing with stiffening strut

WHY ELSA? A FLEXIBLE SOLUTION BUILT ON A ROBUST HERITAGE

Traditional rigid composite solar arrays often impose significant constraints on small satellite programs. Their reliance on specialized materials, fixed geometries, and labor-intensive assembly makes them slow to procure, costly to scale, and difficult to reconfigure once spacecraft interfaces are defined. These limitations create friction for missions that must adapt to evolving payload needs, late cycle design updates, or shifts in photovoltaic availability.

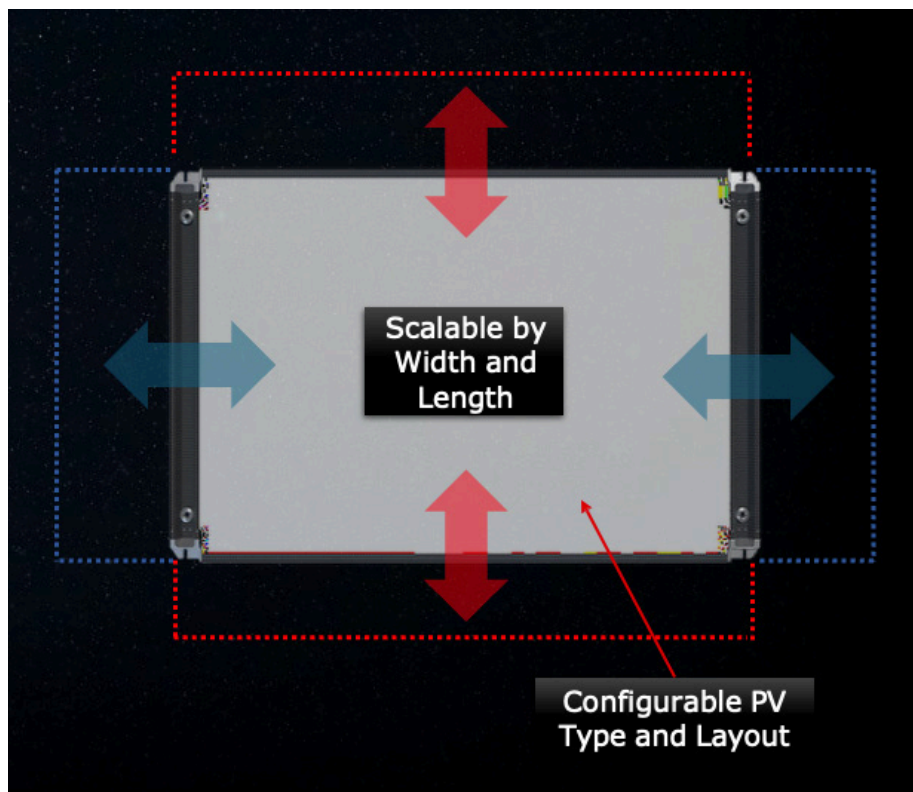
Redwire's Extensible Low-Profile Solar Array (ELSA) was developed to address these challenges,

providing an innovative design engineered to minimize stowed volume and mass while preserving performance, accelerating production, and reducing cost. ELSA is a high-performance, low-mass solar array product that offers a modular, scalable, and cost-effective architecture designed as a drop-in replacement for rigid composite panel arrays—providing up to 50% more power by volume than traditional arrays.

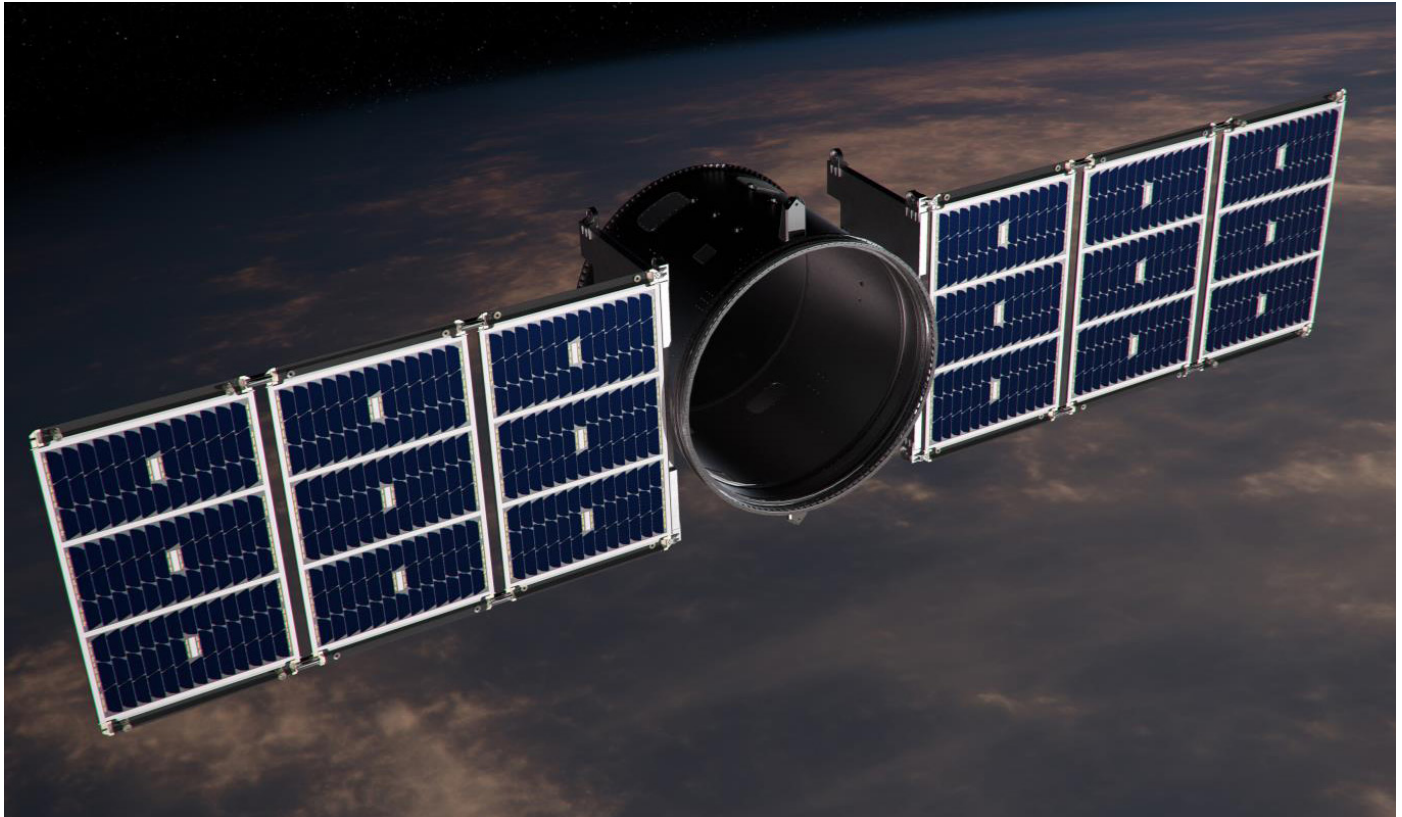
Building upon the flight heritage and 100% success rate of Redwire's Roll-Out Solar Arrays (ROSA) on flagship space missions, ELSA's low profile, modular architecture supports fast production, cost effective manufacturing, and straightforward configuration changes without altering the basic wing design. Adapting to a wide

range of spacecraft interfaces and accommodating multiple photovoltaic technologies, the power solution ELSA provides fits directly into modern small satellite manufacturing flows.

Scalable from 250W up to 7,000W but most optimized for the 1kW – 5kW power range, ELSA is suitable for most LEO spacecraft and small GEO / MEO spacecraft. For power level needs beyond ELSA, Redwire's ROSA platform is designed for larger LEO, GEO, and MEO spacecraft, as well as high-power applications such as habitats and Orbital Data Centers. These innovative options enable teams to maintain schedule flexibility and move from concept to orbit with greater speed while defining the best power solution for next generation small satellite missions.



➤ ELSA's Modular Frame Design



➤ Elsa on Moog's METEOR bus

MISSION USE CASE: RAPIDLY POWERING A NATIONAL SECURITY MISSION IN LOW EARTH ORBIT WITH MOOG, INC.

National security missions demand faster deployment timelines, greater flexibility, and cost-effective scalability. In need of a power system that could keep pace without compromising performance, Moog selected Redwire's ELSA solar array wings in early 2026 for integration with its METEOR satellite bus.

This national security mission required a power solution that minimized stowed volume and

mass while delivering reliable performance. ELSA's low-profile architecture enabled efficient packaging and launch integration, helping to maximize spacecraft capability in a low earth orbit (LEO) mission where every cubic centimeter mattered.

“These solar arrays boost the adaptability of Moog's satellite buses, allowing us to offer more flexible, modular solutions that directly support evolving customer missions,” said Bob McArthur, Moog Space Vehicles General Manager.

But the value of ELSA extends beyond a single mission. As an all-orbit capable platform supporting a broad range of mission profiles, ELSA has been baselined by Moog as a standard component of METEOR, meaning the satellite bus can now leverage ELSA's combination of high-performance power generation, low mass, and production-ready design to deliver enhanced flexibility for future customers.



■ ELSA Deployed in Orbit

WHAT'S NEXT FOR ELSA?

Built on Redwire's decades of space power heritage and commitment to on-orbit reliability, ELSA provides satellite operators with a dependable, affordable power solution that accelerates mission readiness and supports the next generation of responsive space architectures.

Looking ahead, ELSA is positioned to help redefine how satellite operators approach power generation in space, representing the next evolution of Redwire's space power portfolio. By enabling

faster deployment of capable constellations and mission-ready spacecraft, Redwire's ELSA stands ready to support customers in meeting operational demands across an expanding range of orbital environments with greater speed, flexibility, and cost-efficiency.

To learn more about ELSA, as well as Redwire's full catalog of space solutions, visit: <https://rdw.com/product-archive/power/elsa/>



