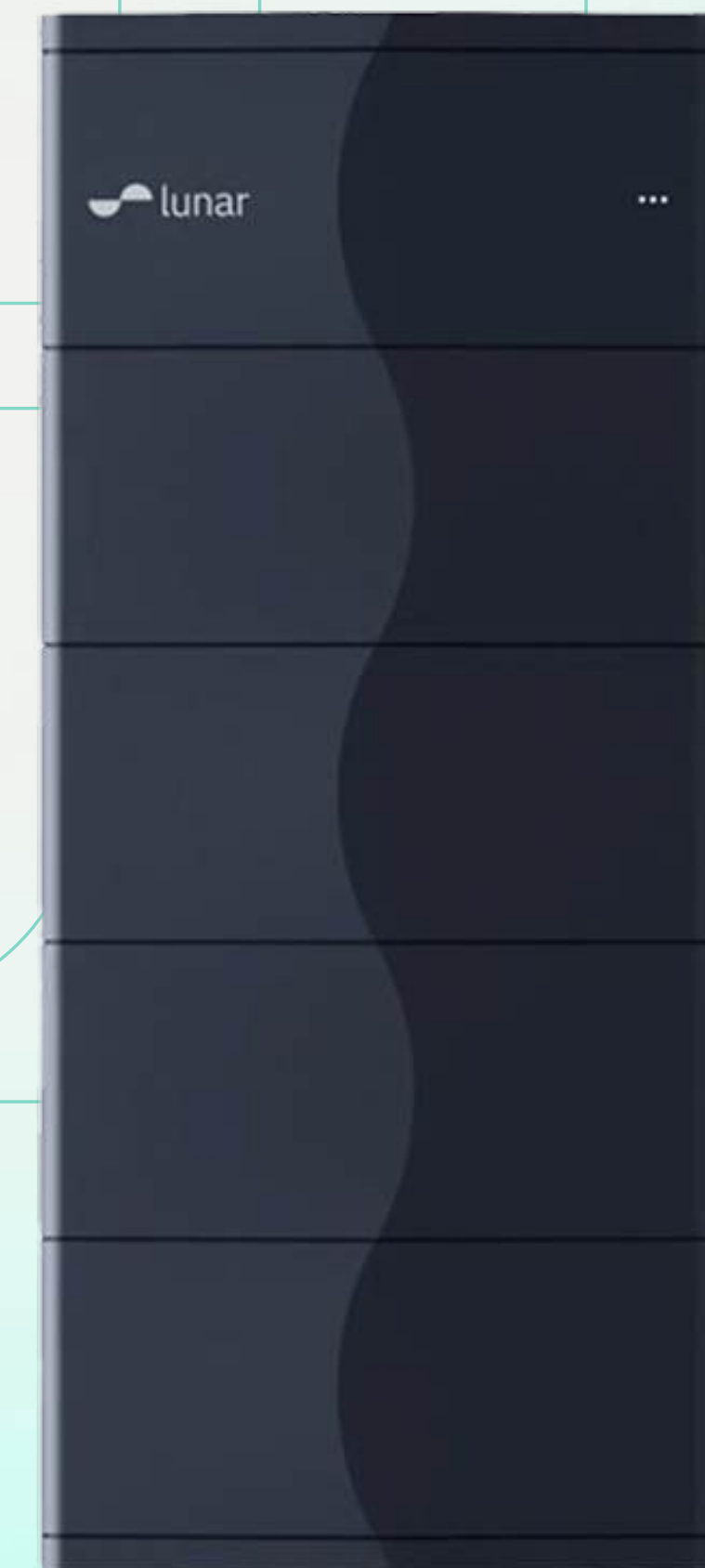
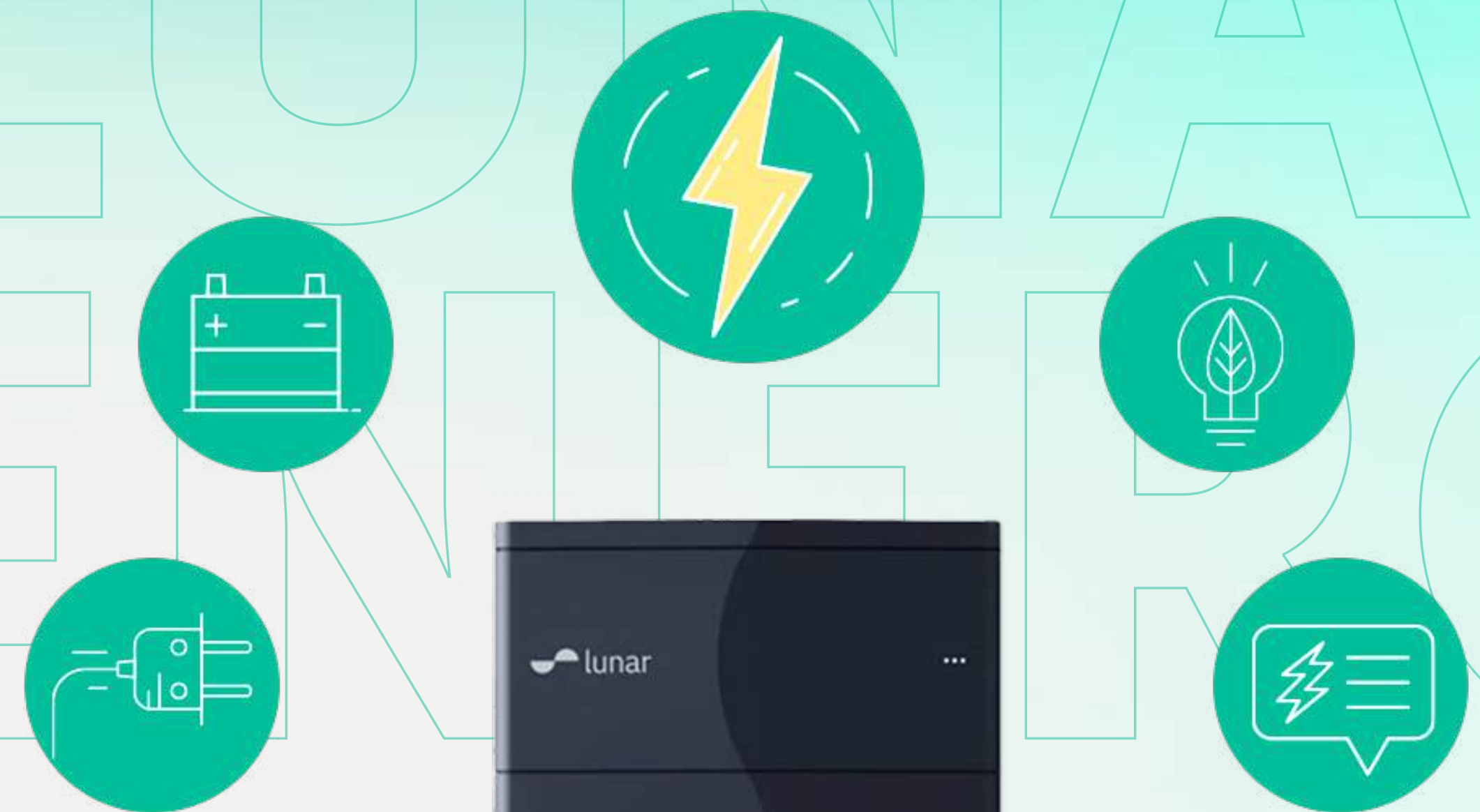


FICTIV



LUNAR ENERGY

POWERING THE FUTURE



About Lunar Energy

Industry: Clean Energy

Product: The Lunar System (Solar + home energy storage)

Location: Mountain View, CA

Why Fictiv

Lunar Energy chose Fictiv for its comprehensive manufacturing solutions for custom mechanical components, such as rapid prototyping, scalable production, and the ability to accelerate product development.

“Take the home energy ecosystem into the next generation by moving away from fossil fuel-powered electricity and heating, making it the all-electric home of the future.”



Mark Rohan
lunar Energy, Fictiv



Customer Challenges:

- Turning designs into prototypes quickly
- Faster transitioning from prototype to production utilizing the same partner and tools

Capabilities Leveraged:

- Injection Molding
- In-Depth DFM Analysis & Consultation
- Supply Chain Program Management Services
- Supply Chain Logistics Management Services

Results:



Reduced Lead Time

By leveraging Fictiv's network and expertise, Lunar cut tooling lead times from months to as little as six weeks, achieving a 50% faster time to production by eliminating a tooling cycle.



Cost Savings

The soft tooling approach saved Lunar significant costs, including \$1M in tooling expenses, by eliminating the need for multiple iterations. Adjustments to existing tools further minimized expenses.



Improved Efficiency

By reducing tooling cycles and modifying existing tools, Lunar saved 700 engineering hours. The rapid turnaround of prototypes allowed Lunar to accelerate compliance testing and internal validation, enabling faster go-to-market timelines.



Streamlined Production

Fictiv's seamless transition from prototyping to production reduced the complexity of scaling operations.



CLEAN ENERGY INNOVATION MEETS MANUFACTURING EXPERTISE

Not everyone appreciates the innovation and resourcefulness required to turn a clean energy visionary concept into reality, but Mark Rohan does. As Lunar Energy's VP of Operations, Rohan oversees the process of bringing the innovative Lunar System from design to full-scale production. The Lunar System is a solar energy and battery backup system designed to mitigate electricity interruptions caused by power outages, extreme weather, or downed power lines.

Rohan says Lunar Energy's mission is to "take the home energy ecosystem into the next generation by moving away from fossil fuel-powered electricity and heating, making it the all-electric home of the future." Lunar's hardware and software ecosystem enables homeowners to generate, store, and consume energy in smarter, cleaner ways—without relying on fossil fuels.

The Lunar System's core functionality lies in coupling a home battery with solar panels to optimize energy usage. "Our system produces electricity during the day when the sun is out, stores that electricity in the battery, and distributes it when most customers need it—usually after 5:00 PM," Rohan explains. "This means you can keep the solar power you make long after the sun has set."

Like other innovative companies before them, Lunar relied on Fictiv to source, manufacture, and support their innovations with design for manufacturability (DFM) expertise, prototyping, and eventually full-scale production. This partnership helped bring the Lunar System to market, making powering a clean energy future possible.

“Our system produces electricity during the day when the sun is out, stores that electricity in the battery, and distributes it when most customers need it—usually after 5:00 PM.”

Mark Rohan
lunar Energy, Fictiv



DELIVERING INNOVATIVE CLEAN ENERGY TO THE MARKET

Getting a new clean energy product to market is never easy. Manufacturing a product as complex as the Lunar System—with tight deadlines and stringent quality requirements—presented significant challenges. After exploring several quick turn options, Lunar Energy selected Fictiv as a key partner for its speed, flexibility, and expertise in delivering high-quality mechanical components.

Rohan reflects on the selection process. “We knew we wanted to move fast through development,” he says. “Fictiv allowed us to get 30 injection-molded plastic parts, along with the necessary tooling, much faster than traditional suppliers could. Their speed was critical in helping us meet our aggressive project timelines.”

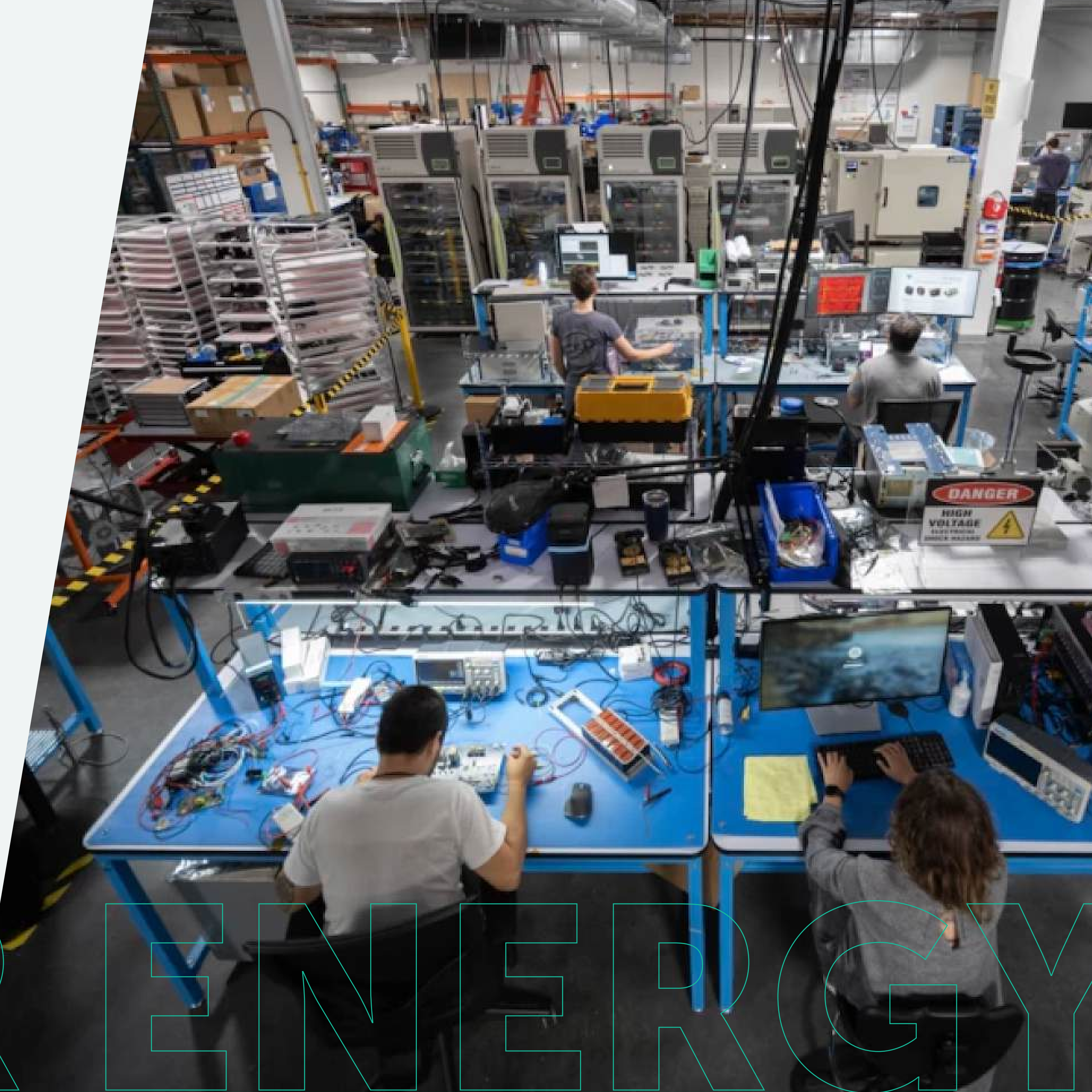
“Having access to Fictiv’s leadership and their commitment to solving challenges—whether it was tooling adjustments or communication gaps—made a huge difference.”

Mark Rohan
lunar Energy, Fictiv

OVERCOMING MANUFACTURING CHALLENGES

The transition from concept to production required overcoming several technical and logistical challenges. The Lunar System consists of precision-engineered components, including mechanical enclosures, heat-resistant battery housings, and complex structural assemblies. All of these require tight tolerances and compliance with rigorous compliance standards. These components also had to integrate seamlessly into a broader system while meeting cost and quality targets.

Fictiv's rapid prototyping capabilities allowed Lunar to iterate on designs quickly. Tools were ready within six to eight weeks, compared to the typical four to six months required by traditional manufacturers. Fictiv's agility ensured Lunar could avoid project delays despite frequent design updates. Additionally, Fictiv's expertise in soft tooling enabled Lunar to produce high-quality prototypes that carried through to early production, saving an estimated 65-70% in tooling costs.



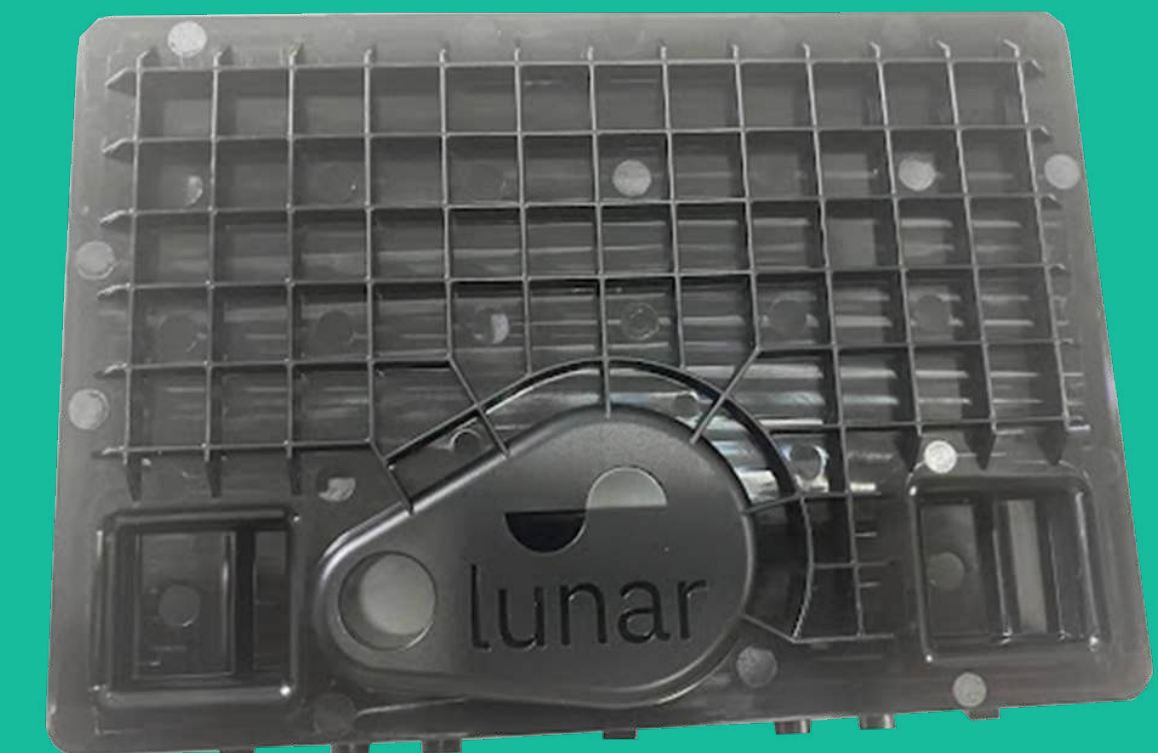
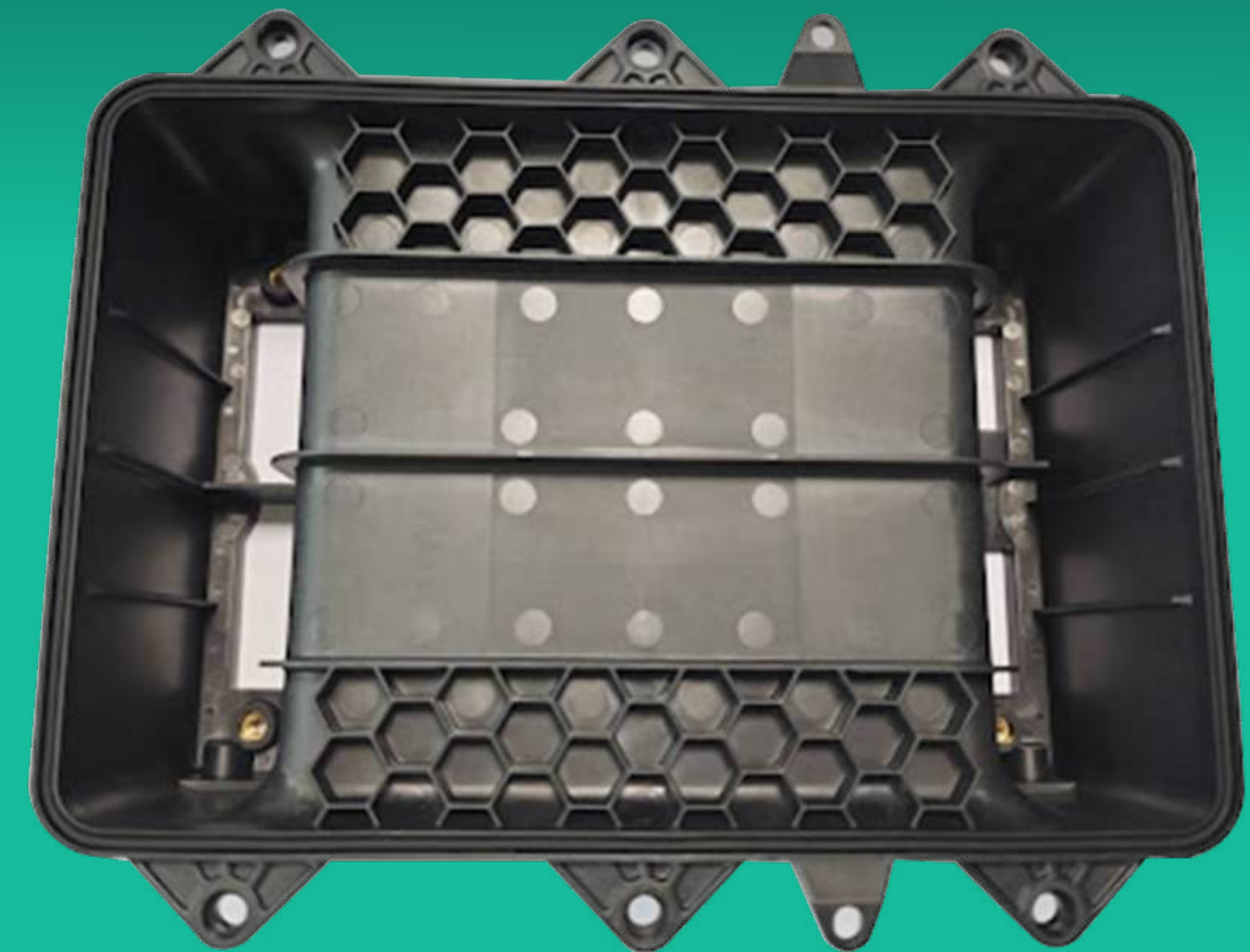
LUNAR ENERGY

MANUFACTURING THE LUNAR SYSTEM

Fictiv's contributions extended beyond speed and cost. Lunar required manufacturing processes that could adhere to strict quality and regulatory standards. Fictiv's ISO-certified facilities ensured components met rigorous industry regulations for green energy products. Their ability to provide site audits and advanced quality planning gave Lunar the confidence to scale production.

Rohan emphasized the importance of site audits. **"We personally visited overseas facilities where our parts were manufactured. Seeing the quality processes firsthand reassured us that Fictiv's suppliers were highly capable,"** he says.

This hands-on approach to quality and the flexibility to adapt tools for iterative design changes made Fictiv an invaluable partner. When design updates required modifying tools, Fictiv's suppliers implemented creative solutions to avoid costly replacements. Complete mechanical bill of materials (BOM) and Injected Molded assembly manufactured by Fictiv.



Top: Light escapes the top in an earlier iteration.
Bottom right: The team's solution achieves the desired look.

FICTIV'S GLOBAL SUPPLY CHAIN SERVICES

By partnering with Fictiv, Lunar sourced components for the mechanical assembly on time, within budget, and to exact specifications. Fictiv's global supply chain services provided a seamless solution, connecting the clean energy company with a North American partner that delivered on time without compromising quality.

Throughout the manufacturing process, Lunar Energy relied on Fictiv for:

- Managed Services: Turnkey solutions with free presale, in-depth design for manufacturability analysis and consultation, production cost-down analysis, and human-touch DFM.
- Quality: ISO 9001:2015 quality certification and manufacturing partners certified to AS9100 Rev D, ISO 13485:2016, and IATF 16949:2016, on-site quality inspections & production audits, advanced product quality planning, and material certifications.
- Supply Chain Agility: In-region supplier management, sourcing, production, and logistics optimization.



PARTNERSHIP DYNAMICS

The partnership between Lunar Energy and Fictiv was built on shared goals and mutual trust. Rohan highlights the importance of Fictiv's regional supplier management and dedicated project teams. "Having access to Fictiv's leadership and their commitment to solving challenges—whether it was tooling adjustments or communication gaps—made a huge difference," he says.

Fictiv's ability to integrate seamlessly into Lunar's workflows also stood out. While Lunar's engineering team initially used a traditional quoting process, they later adopted Fictiv's online tools for greater efficiency. This collaboration exemplifies how adapting processes can unlock better results for both parties.

LUNAR ENERGY

HIGHLIGHTING CUSTOMER VALUE

For homeowners, the Lunar System represents peace of mind and energy independence. Rohan's personal experience during a Northern California heatwave underscores the system's reliability. **"Our battery kept everything running seamlessly when the grid went down," he recalls. "Knowing my family was safe and comfortable reinforced why this technology matters."**

The Lunar System's ability to optimize solar energy usage and provide backup power aligns with the broader mission of transitioning to a sustainable energy future. By partnering with Fictiv, Lunar has made this vision a reality for early adopters while laying the groundwork for broader adoption.

LOOKING AHEAD

Lunar Energy's journey is just beginning. With customer installations underway and production ramping up, the company is poised for significant growth in 2025. **"We're excited about expanding our product ecosystem in the future and continuing to work with partners like Fictiv who can help us scale," Rohan** notes. Fictiv's ability to adapt to Lunar's evolving needs positions them as a long-term partner in enabling clean energy innovation. As Lunar Energy continues to redefine the home energy landscape, its collaboration with Fictiv highlights what's possible when visionary ideas meet manufacturing expertise.



fictiv

FICTIV



LUNAR ENERGY

LEARN MORE AT [FICTIV.COM](https://fictiv.com)

