ASTERWATT

AI data centers in orbit

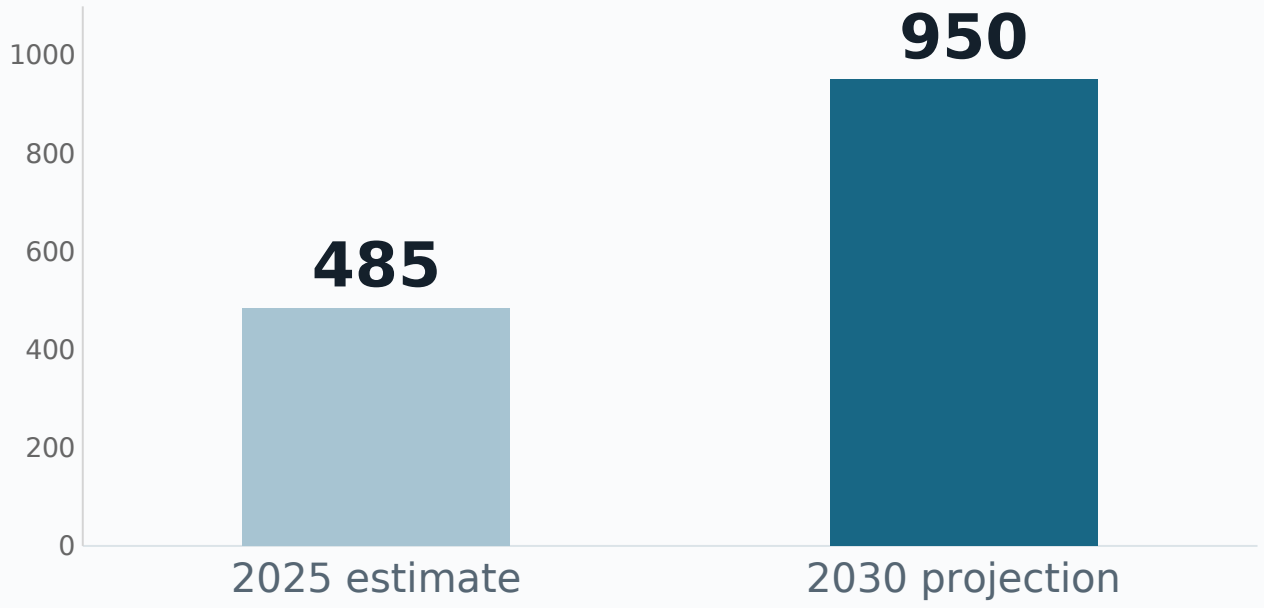
Built for frontier AI labs
and hyperscalers

Pre-seed / September 2026

Ilyas, Founder / asterwatt.com

AI growth puts pressure on power supply

Global data center electricity use



Power is a bottleneck

Grid connections and energy equipment can delay new capacity.

The IEA projects AI-focused data center electricity use to triple between 2025 and 2030.

TWh per year. All data centers. IEA, Key Questions on Energy and AI, April 2026.

Solar-powered compute in orbit

Our plan is to build and operate modular AI data centers above Earth.

How it works

Solar panels supply electricity.
AI chips run customer workloads.
Radiators release heat into space.

Why pursue it

Add a source of compute capacity beyond terrestrial grid connections and data center sites.

The engineering goal: a reliable module with a competitive total cost.

Frontier AI labs and hyperscalers

Our target customers build leading AI models or operate large cloud platforms.

What they would buy

Reserved AI compute capacity, with agreed performance, security and service terms.

First customer engagement

Select a batch inference workload and agree on the tests needed for a pilot.

Initial workloads must tolerate scheduled data transfers and fit the selected module.

The first module runs inference

Inference means running an AI model that has already been trained.

01 Upload

A model and its input data

02 Run in orbit

A job within power and memory limits

03 Return

Results and operating data

First flight goal: complete an inference job and measure power, heat and reliability.

What the first module must prove

Engineering question	Planned validation
Heat and power	Run sustained workloads in a thermal-vacuum test.
Mass and deployment	Budget the full system, including panels and radiators.
Reliability	Test radiation effects, fault recovery and safe shutdown.
Communications	Measure transfers, job completion time and secure access.

A system design links these tests. A change in one subsystem affects the others.

Revenue from compute capacity

During validation

Seek paid pilot work with agreed technical results and operating data.

At commercial scale

Sell reserved capacity through longer contracts, with usage pricing where suitable.

Cost per billable GPU-hour

Lifetime module cost divided by billable GPU-hours

Designed for repeat production

The long-term goal is a fleet of orbital AI data centers.

Repeat the module

Standardize mechanical connections, power interfaces and software controls.

Improve each generation

Use test and flight data to improve usable compute per kilogram and production cost.

Expand deployments when reliability, customer demand and full costs support the next unit.

An 18-month development plan

Proposed timing starts when funding is available.

Period	Target outcome
Months 0-3	Core technical team, customer requirements and supplier quotes.
Months 4-9	Ground prototype, power and heat measurements, mission design.
Months 10-18	Qualified flight unit, integration and first orbital inference test.

Flight timing depends on test results, approvals and launch or hosting availability.

Ilyas, Founder

10+ years

Critical IT operations in financial markets

Application support, incident response and operations across time zones

Technical foundation

Mechanical and electromechanical education, followed by IT and systems engineering and an MBA.

First technical hires

Space systems and thermal engineering, with embedded software and AI infrastructure expertise.

What the first round funds

A core team and a first module with measured performance.

People

Founder compensation and specialist engineering capacity.

Hardware and tests

Compute hardware, thermal design, prototype builds and qualification.

Mission and operations

Spacecraft integration, launch or hosting, ground links and approvals.

Cash reserve

Allowance for redesign, component delays and mission changes.

Seeking pre-seed partners

Build the team.
Validate the first orbital module.

Our long-term goal is to mass-produce orbital AI data centers and sell their compute capacity to leading AI companies.

Ilyas, Founder / asterwatt.com