Celero, Mindbeam, and Monash University Uncouple AI Growth from Grid Strain: Independent Audit Validates 40% GPU Energy Efficiency Breakthrough.

NEW YORK and MELBOURNE, Australia — February 23, 2026 — Celero Infrastructure today announced the results of an independent technical audit of U.S.-based Mindbeam's 'Litespark' technology, conducted by Australia's Monash University. The findings represent a landmark shift for the digital economy: the ability to accelerate AI model training while simultaneously reducing total GPU energy consumption.

Monash University audit provides a validation of 40% GPU energy savings across standard high-density GPU configurations in a relevant AWS environment, using Mindbeam's proprietary methods. In certain multi-node enterprise-scale settings, Mindbeam has reportedly achieved energy efficiency exceeding 80%.

As global energy grid operators grapple with the unprecedented power demands of AI, Mindbeam's Litespark algorithm provides a critical technical solution. By optimising GPU efficiency and accelerating Large Language Model (LLM) pre-training, Litespark establishes a viable pathway for data centres to scale without compromising the integrity of global energy markets.

An Independent Review: Solving the Infrastructure Dilemma

Recognising that energy availability is now the definitive constraint on digital expansion, Celero Infrastructure—serving as Mindbeam's technology deployment partner in Asia Pacific (APAC)—engaged Monash University to conduct a rigorous, third-party validation of the Litespark framework. This independent verification was commissioned to confirm the materiality of Litespark's energy productivity as Celero prepares to integrate the technology across its own 'Digital Energy Hubs' and facilitate its broader commercial adoption by third-party data centre operators throughout the APAC region.

The Monash University review confirms that Litespark's software-defined optimisations allow tested GPU clusters to achieve:

- **Grid Resilience:** A ~40% reduction in GPU energy draw for the same compute output, enabling significant expansion within existing power envelopes.
- **Reduced Energy Market Impact:** By slashing the energy intensity of LLM training, Litespark reduces the risk of data centres "starving" global energy grids or driving up wholesale energy prices for other consumers.
- **Superior Performance:** A marked decrease in end-to-end training timeframes, delivering faster AI iteration with a drastically smaller physical and energy footprint.

Strategic Commentary

Damien Sanford, Partner - Celero Infrastructure:

"We cannot build the digital future by breaking the energy present. Australia's grid, like many other global grids, is at a tipping point, and policymakers and grid operators are rightly concerned about the scale of data centre loads."

"We commissioned this independent Monash review because we needed to prove that we can develop critical infrastructure that is 'grid-compatible.' This 40% energy efficiency gain changes the conversation from if we can scale AI, to how we do it responsibly."

Nii Osae, Founder - Mindbeam:

"Litespark acts as a critical efficiency layer between the software and the silicon - After all, data is simply energy through a phase change."

"By partnering with Celero and subjecting our technology to Monash's independent validation, we've demonstrated that software-layer optimisation is the most immediate and effective tool for preserving grid stability while accelerating the AI revolution."

Technical validation of the 'Litespark' technology was conducted by Dr Trang Vu from Monash University's Faculty of Information Technology facilitated via the Monash Energy Institute.

Shreejan Pandey, Director - Monash Energy Institute:

"Monash University's role was to provide an objective, data-driven assessment of Litespark's impact on GPU energy usage in compute environments."

"Our independent review found that the algorithmic efficiencies within Litespark deliver a material reduction in GPU power draw that is statistically significant and transformative for the energy profiles of large-scale AI training."

The Path to Reliability

For data centre developers and grid regulators alike, the commercial and systemic implications of these findings are profound.

By reducing the GPU energy required for a given compute load by 40%:

- Digital infrastructure evolves into a sustainable pillar of the digital economy, rather than a strain on existing grid infrastructure; and
- Operators can effectively surmount the 'power wall' while securing a decisive competitive advantage through drastically lower operational energy costs and accelerated LLM learning timeframes.

Celero Infrastructure

Celero Infrastructure is a specialist energy infrastructure developer focused on the convergence of renewable energy and digital infrastructure, led by some of Australia's most experienced energy executives. Celero is pioneering the development of "Digital Energy Hubs" that combine large-scale battery storage and energy-efficient compute to support a sustainable, reliable digital future.

Learn more: **celeroinfrastructure.com**

Mindbeam

Mindbeam provides next-generation AI frameworks that optimise GPU performance for generative AI. The company is led by Nii Osae, a seasoned technologist, Forbes 30 under 30 awardee and global speaker at forums including NVIDIA GTC, Nii has steered Mindbeam to develop Litespark—a "zero code change" solution that accelerates the training of AI models. Litespark drastically shortens training cycles and reduces total energy consumption by more than 80% in specific environments, offering a high-efficiency pathway for data centre operators globally.

Learn more: **mindbeam.ai**

Monash University

Established in 1958, Monash University is a global research leader and Australia's largest university. Its world-class technical facilities and independent research capabilities make it a preferred partner for the validation of disruptive technologies in the energy and information technology sectors.

Learn more: **monash.edu**

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