

CO-FOUNDER NEEDED

Delivers secure, cyber-resilient grid-edge communication for scalable control of energy assets

SPIKENET

THE PROBLEM

Modern power grids rely on vulnerable, centralized communication networks that increase cybersecurity risks, data waste, and energy inefficiency. SpikeNet offers a radical new approach: transforming the power grid into a living, thinking network that uses the grid's own electrical signals for coordination—no external communication, no cyberattack surface.

OUR SOLUTION

By converting energy and data into sparse binary “spikes” generated locally inside Power Sentinel device, SpikeNet enables real-time, event-driven intelligence directly via power lines. These software-domain spikes replace traditional peer-to-peer messages with autonomous, inference-based coordination—rendering the grid inherently secure, low-latency, and EMI-resilient.

Vision of SpikeNet:

- 100% cyber resilience
- 70% less data waste
- 40% higher carbon efficiency
- 40% reduction in AI hardware cost
- 100% EMI immunity

PATENT STATUS

SpikeNet patent was submitted September 2025 by Aalborg University with all rights secured.

FINANCIAL OVERVIEW

SpikeNet Enables:

- No cloud coordination per site → zero recurring cloud cost
- No IP or VPN setup → zero IT overhead
- Gateway hardware with marginal cost < €50 possible at scale
- Coordination embedded at edge → ultra-low per-site OPEX

MILESTONES ACHIEVED

InnoExplorer, AAU Research to Business Pilot Grant & Spinouts Denmark funded project. Currently awaiting Phase 2 IFD Grand Solutions.

TARGET MARKET & CUSTOMERS

B2B customers with power grid and grid-edge applications.

CO-FOUNDER PROFILE WE ARE LOOKING FOR

Must-have qualifications/background

- Power grid automation
- Digitalization of energy systems
- Power grid communications

Nice-to-have qualifications/background

- Edge computing

Personal fit

Looking for a focused co-founder with deep edge computing industry experience, particularly in the power grid applications. Since the market on edge computing and cybersecurity can be secretive, we need someone who fosters the business model of SpikeNet which has new value propositions than existing solutions in the market today.

EU time zone preferred, flexible with remote option

TASKS & RESPONSIBILITIES (FIRST 3 MONTHS)

- Go-to-market strategy
- Business model for small-scale and large-scale businesses with grid implementation knowledge

ACADEMIC & ENTREPRENEURIAL BACKGROUND OF CURRENT CO-FOUNDERS

Subham Sahoo, Associate Professor
sssa@energy.aau.dk

Expert in Cybersecurity and artificial intelligence for power electronics systems and power grids

Yubo Song, Postdoc

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Expert in: Control and optimization of power electronics systems and power grids

PHYSICAL ADDRESS

Aalborg University

AAU Energy Department

