



## GoodWe ESS Solid-State Storage Powers Europe's Telecom Infrastructure

### Why Telecom Towers Need Smarter Energy Solutions

telecom towers are like the caffeine addicts of urban infrastructure. They guzzle power 24/7 to keep our mobile networks buzzing. Enter GoodWe ESS solid-state storage, the energy barista serving up a triple-shot solution for Europe's 500,000+ towers. With EU directives demanding 32.5% energy efficiency improvements by 2030, operators are scrambling for solutions that don't involve sacrificing network reliability.

### The Solid-State Advantage in Harsh Conditions

Traditional lead-acid batteries in telecom towers face more drama than a Netflix original series:

- Capacity fades faster than a politician's promise in -20°C winters

- Maintenance costs that make Swiss watch repairs look cheap

- Space requirements rivaling metropolitan studio apartments

GoodWe's solid-state lithium batteries laugh in the face of -40°C Finnish winters while maintaining 95% capacity retention after 6,000 cycles. It's like having a battery that ages in reverse - Benjamin Button-style energy storage.

### Real-World Implementation: Bavarian Case Study

When a Munich tower site experienced 17 power outages in 2022, Deutsche Telekom switched to GoodWe's ESS solution. The results?

- Energy savings

  - 31% reduction

- Maintenance visits

  - From monthly to biannual

- Battery footprint

  - 60% space reduction

The system's AI-driven thermal management prevented capacity fade during last winter's polar



vortex - something the old batteries handled about as well as ice cream in a sauna.

## Navigating EU Regulations Like a Pro

With the Ecodesign for Energy Storage Products regulation kicking in 2026, GoodWe's solutions are already playing by tomorrow's rules:

- 95% recyclable components meeting WEEE directives
- Embedded carbon tracking for ESG reporting
- Cybersecurity protocols that make Swiss banks jealous

It's not just about compliance - it's future-proofing infrastructure while tower operators sleep soundly knowing they won't face non-compliance fines that could buy a small island nation.

## The Hidden Superpower: Peak Shaving

Here's where it gets juicy. GoodWe's ESS systems act like financial wizards for energy bills through:

- Load shifting during EUR0.42/kWh peak rates
- Predictive discharge algorithms accurate to 92%
- Grid services participation earning EUR18/MWh in ancillary markets

A Vodafone Italia pilot site turned its energy storage from cost center to profit generator, earning EUR23,000 annually in demand response programs. That's like finding money in last season's winter coat!

## When Mother Nature Throws a Tantrum

During 2023's Storm Poly in the Netherlands, towers with GoodWe storage:

- Maintained uptime during 72-hour grid outages
- Automatically prioritized emergency communications
- Self-heated batteries preventing performance drops

Meanwhile, traditional battery sites required diesel generators that would've made Greta Thunberg stage a sit-in protest. The difference? About 8 tons of CO2 emissions per incident avoided.

## Installation Without the Headache

GoodWe's modular design makes deployment smoother than a fresh jar of Nutella:



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Plug-and-play installation in

Web:

<https://onepower.pl>