

# THE CASE FOR COMMUNITY-SCALE MICROGRIDS

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## Planning and Infrastructure Bill 2025: The Missing Amendment

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A Policy Brief by Off-Grid.net

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## EXECUTIVE SUMMARY

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The Planning and Infrastructure Bill 2025 represents the most significant planning reform in over a decade, but it's missing a crucial piece: the legal framework to unlock community-scale microgrid power stations. While the Bill includes measures to accelerate large energy infrastructure under the Nationally Significant Infrastructure Project (NSIP) regime, it fails to address the immediate bottleneck in grid connections that is sabotaging housing delivery, regional growth, energy resilience, military preparedness, data infrastructure, and local food production.

*Even under the new NSIP rules, the average large power station will still take 4-7 years to complete. A hundred 5MW microgrids would all be generating power in half that time, at lower cost, making the communities that host them more resilient, and boosting economic growth in those areas.*

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## THE GRID CONNECTION CRISIS

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### 10-Year Delays Blocking Government Targets

- **New housing developments** face 10-year waits for grid connection
- **Directly threatens** the government's 1.5 million homes target
- **New solar and wind capacity** faces identical delays
- **Makes 2030 clean energy targets** impossible to achieve
- **Economic loss:** £2-4 billion annually in delayed renewable deployment

### Energy Companies Retreating from UK Investment

- Major energy companies **stepping back** from UK investments
  - **Reform Party has blocked the next round of CfDs**
  - Even with new NSIP regime, **we need a bigger pipeline**
  - **Every MW counts** in the race to Energy Security
  - Current system creating **investment uncertainty** and delays
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## THE MICROGRID SOLUTION

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### Proven Technology, UK Resources

- Technology now exists to power **1,000 homes for under £5 million** capital cost
- Delivering power in **6-18 months** instead of a decade
- **UK has sufficient domestic resources** - no need for complex international finance deals

- Battery costs **crashed 40%** in one year to £90/kWh
- Solar panel prices **plummeted 30%** in 2024
- **91% of new renewable projects** now undercut fossil fuels

## Economic Transformation

Traditional Grid Connection	Community-Scale Microgrids
10+ years deployment	<b>6-18 months</b>
£2-5m+ per 1,000 homes	<b>Under £5m per 1,000 homes</b>
Single point of failure	<b>Distributed resilience</b>
Corporate ownership	<b>Community ownership</b>

## DEFENCE AND SECURITY IMPERATIVE

### Power Stations: Always Military Targets

- **Every major war for 80 years** has targeted power stations first
- **Ukraine:** Systematic attacks on centralised power infrastructure
- **Cyberattacks** on UK energy infrastructure surged **70%** (2023-2024)
- Large power stations = **concentrated vulnerabilities**

### Distributed Defence Strategy

- **100×5MW microgrids** costing £500 million total
- Creates **resilient infrastructure** that continues operating if units attacked
- **Government funding could count towards UK's enhanced NATO contribution**
- Transforms national energy security from **vulnerability to strength**
- **Military doctrine:** distributed assets harder to target and disable

## NATO-Eligible Investment

- **Defence spending** on critical infrastructure qualifies for NATO targets
  - **Energy security = national security**
  - Distributed microgrids enhance **military base resilience**
  - Supports UK's **2.5% GDP defence spending** commitment
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## ENVIRONMENTAL AND ECONOMIC BENEFITS

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### Carbon Savings at Scale

- UK transmission losses waste **15 TWh annually** = 6 million tonnes CO2
- Distributed systems **eliminate most transmission losses**
- Deploy **7-8 years faster** than centralised projects
- Each microgrid saves **5,445 tonnes CO2/year** vs grid power
- Multiplied across hundreds of sites = **millions of tonnes carbon savings**

### Economic Growth Engine

- **Local ownership** and energy security
  - **Community economic returns** and job creation
  - Eliminates **£2-4bn annual losses** from delayed deployment
  - **Targets growth** with pinpoint accuracy to areas most in need
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## THE LEGISLATIVE OPPORTUNITY

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### Parliamentary Timeline

- Bill currently in **House of Lords Committee stage**
- Returns to **Commons in October** for final amendments
- **This is the last chance to level the playing field**

## The Unlevel Playing Field

- Current Bill **prioritises huge power stations** through streamlined NSIP
- **Leaves small projects** to navigate complex planning system alone
- Creates **structural disadvantage** for community-scale energy
- **Without this amendment, small-scale power will never be competitive in the UK**

## What the Amendment Delivers

- Enables **community-scale microgrids to compete** with Big Energy
- Treats **coordinated small projects** like single large projects
- **Maintains environmental protections** while accelerating deployment
- **Unlocks UK domestic energy resources** without international complexity

## Backbench Amendment

### TARGETED GRID CONNECTION AMENDMENT (Backbench Viable)

Clause 17, page 23, line 8. At end insert:

*"(2B) In deciding how to comply with the duties under this section, the Independent System Operator and Planner shall have regard to the need to assist the owners of renewable energy projects below 10 MW in dealing with the requirements of the application processes for establishing a connection to the grid."*

Additional sub-clause:

*"(2C) The Independent System Operator and Planner shall prioritise grid connections for renewable energy projects that form part of coordinated programmes designed to serve local communities, with particular regard to projects that can demonstrate local community support and ownership."*

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*The Planning and Infrastructure Bill 2025 can either lock us into the failing centralised model or unlock a resilient, democratic, and secure energy future. The choice is ours.*

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**About Off-Grid.net:**

Off-Grid.net is the UK's leading platform for energy independence, connecting over 80,000 monthly users with tools, maps, and ideas for community energy solutions. Founded by award-winning journalist and energy campaigner Nick Rosen, Off-Grid.net challenges the grid-dependent status quo and empowers communities to take control of their energy future.