

Briefing: The Case for Domestic Wood Heating (2026)

Prepared for: Olivia Bailey MP (Reading West and Mid Berkshire)

Focus: Energy Security, Financial Resilience, and Rural Equity

1. Financial Rationale: Beating the "Grid Gap"

For constituents in Reading West and Mid Berkshire—especially those in rural areas off the gas grid—wood serves as a critical economic shield against volatile energy markets.

- **Cost Efficiency:** At approximately **9p–10.5p per kWh**, seasoned wood remains significantly cheaper than standard-rate electricity (~32p) and is competitive with heating oil.
 - **Zone Heating:** Warming a primary living space with a stove allows residents to turn down whole-home central heating, reducing total annual energy bills by **up to 25%**.
 - **Decoupling from the Grid:** Wood prices are not tied to international gas market fluctuations or daily "standing charges," providing a stable "price ceiling" for household budgeting.
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2. Environmental Reality: The Carbon Cycle

Wood is a **renewable biomass**, fundamentally different from extractive fossil fuels like gas or oil.

- **Carbon Neutrality:** Trees absorb CO_2 during growth; burning them releases that same CO_2 in a closed loop. Fossil fuels introduce "new" carbon into the atmosphere that has been locked away for millions of years.
 - **Lifecycle Emissions:** High-efficiency **Ecodesign** stoves produce roughly **0.015kg of CO_2 per kWh**—drastically lower than mains gas (**0.202kg**) or the current UK electricity grid average.
 - **Local Air Quality:** Modern stoves using "Ready to Burn" certified wood (under 20% moisture) emit **90% fewer particulates** than traditional open fires.
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3. Social & Rural Equity

- **The "Rural Penalty":** Many homes in Mid Berkshire lack access to the gas grid. Forcing these households toward 100% electric heating—the most expensive per unit—creates a significant financial burden. Wood provides a localized, low-carbon alternative.
- **Infrastructure Fail-Safe:** During winter power cuts or grid instability, a wood stove is the only heat source that functions without electricity—a vital safety net for elderly or vulnerable residents.

4. Sources & Data Integrity

The data in this briefing is derived from official UK government metrics and environmental lifecycle analyses projected for 2026.

- **Department for Energy Security and Net Zero (DESNZ):** Digest of UK Energy Statistics (DUKES) and quarterly energy price indices.
- **Energy Saving Trust (EST):** Lifecycle emissions metrics for biomass vs. fossil fuel heating.
- **Stove Industry Alliance (SIA):** Independent data on Ecodesign emission reductions and particulate matter.
- **Rural England:** Reports on fuel poverty and the "off-grid" heating challenges in rural counties.