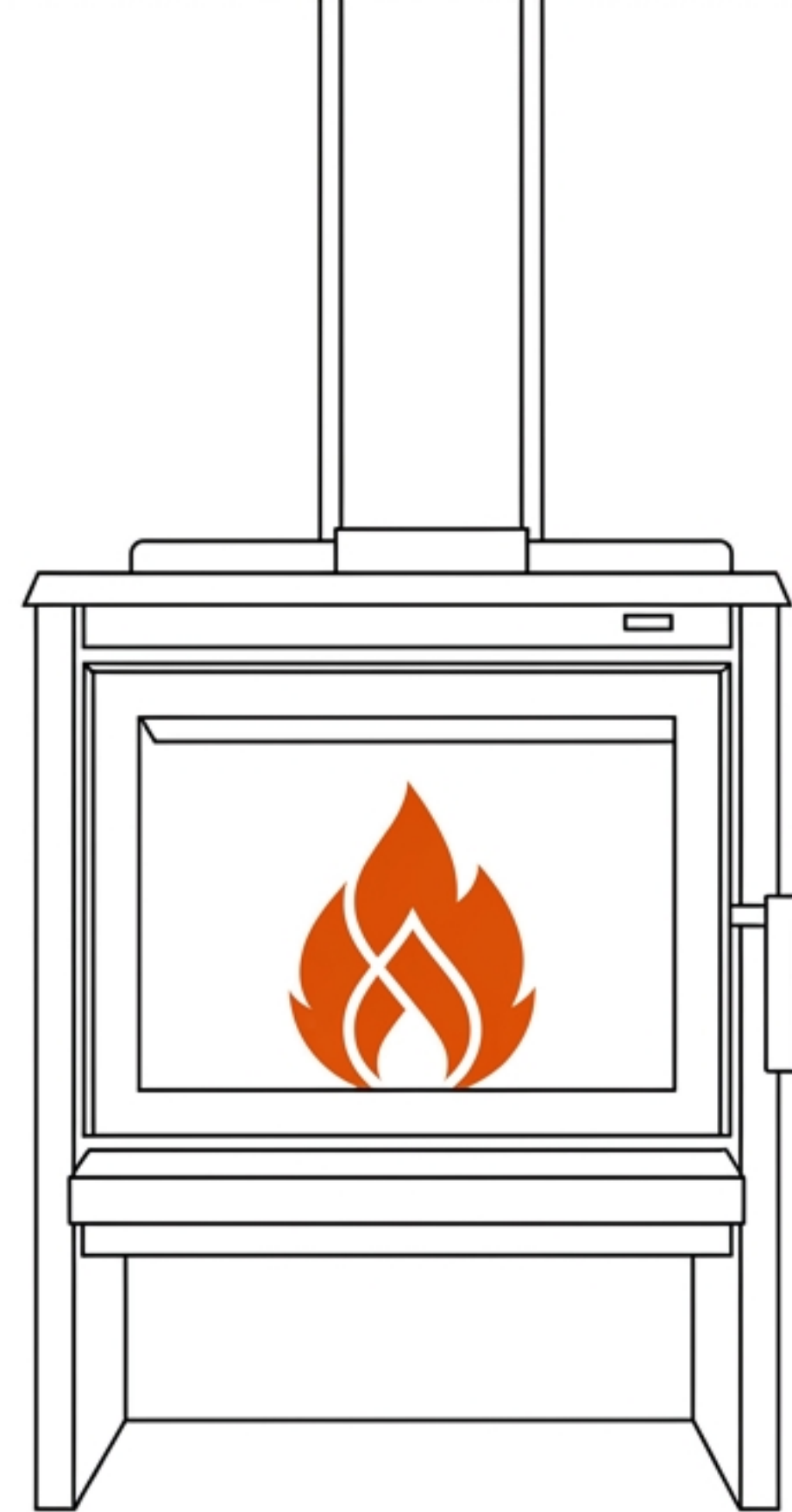


# Clean Heating, Clear Skies

A comprehensive guide to New Zealand's wood burner regulations, emission limits, and upgrade subsidies.

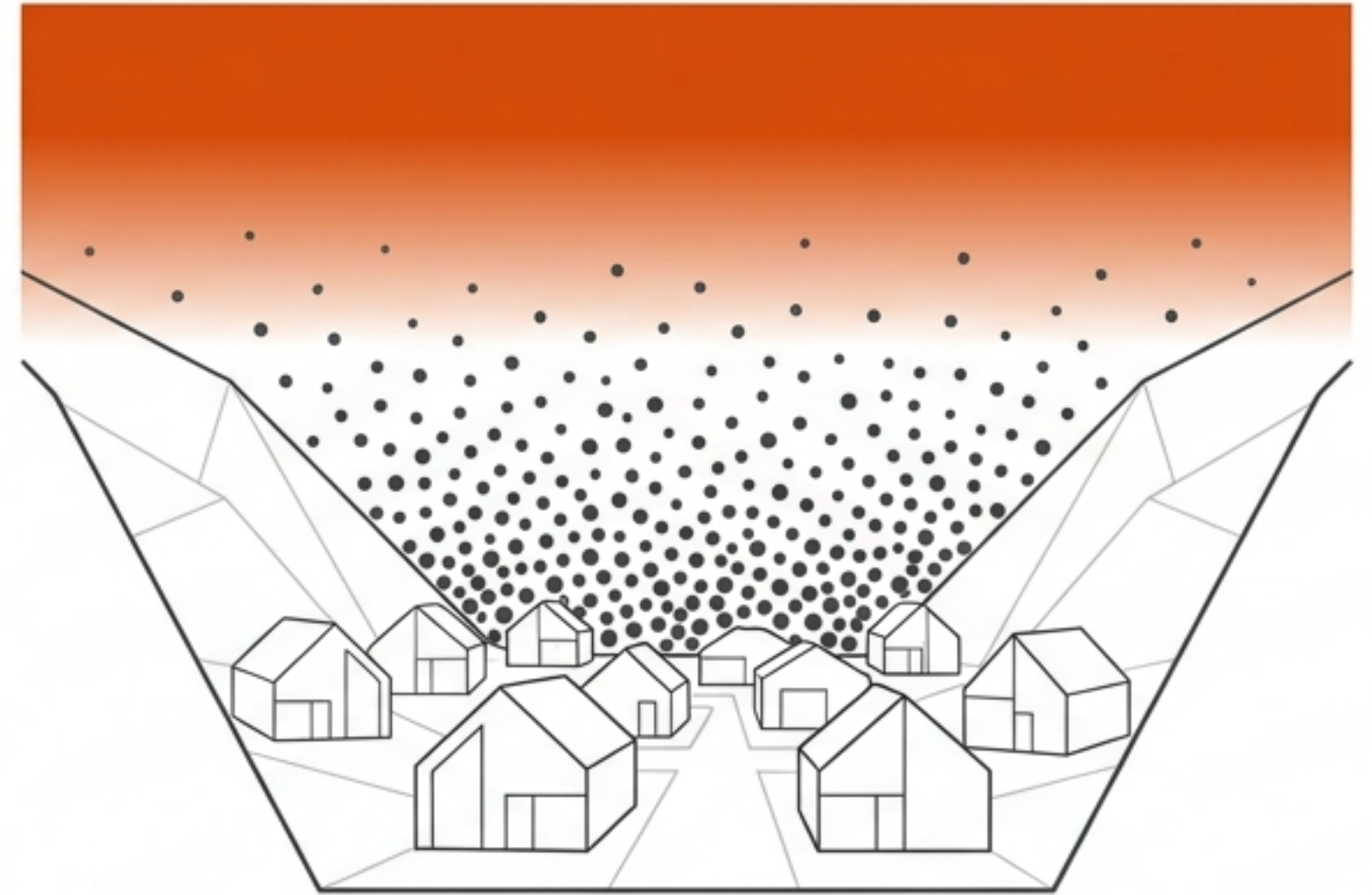
THE HOMEOWNER'S BLUEPRINT



# The Air Quality Imperative

Winter heating is the primary source of poor air quality in regions like Canterbury and Otago. Cold, calm winter days create inversion layers that trap smoke close to the ground.

To clear the skies, New Zealand is enforcing a strict transition away from inefficient open fires and multi-fuel burners toward high-efficiency, ultra-low emission technologies.



What is your property size?

> 2 Hectares

Rural Burners permitted  
(check local council).

< 2 Hectares

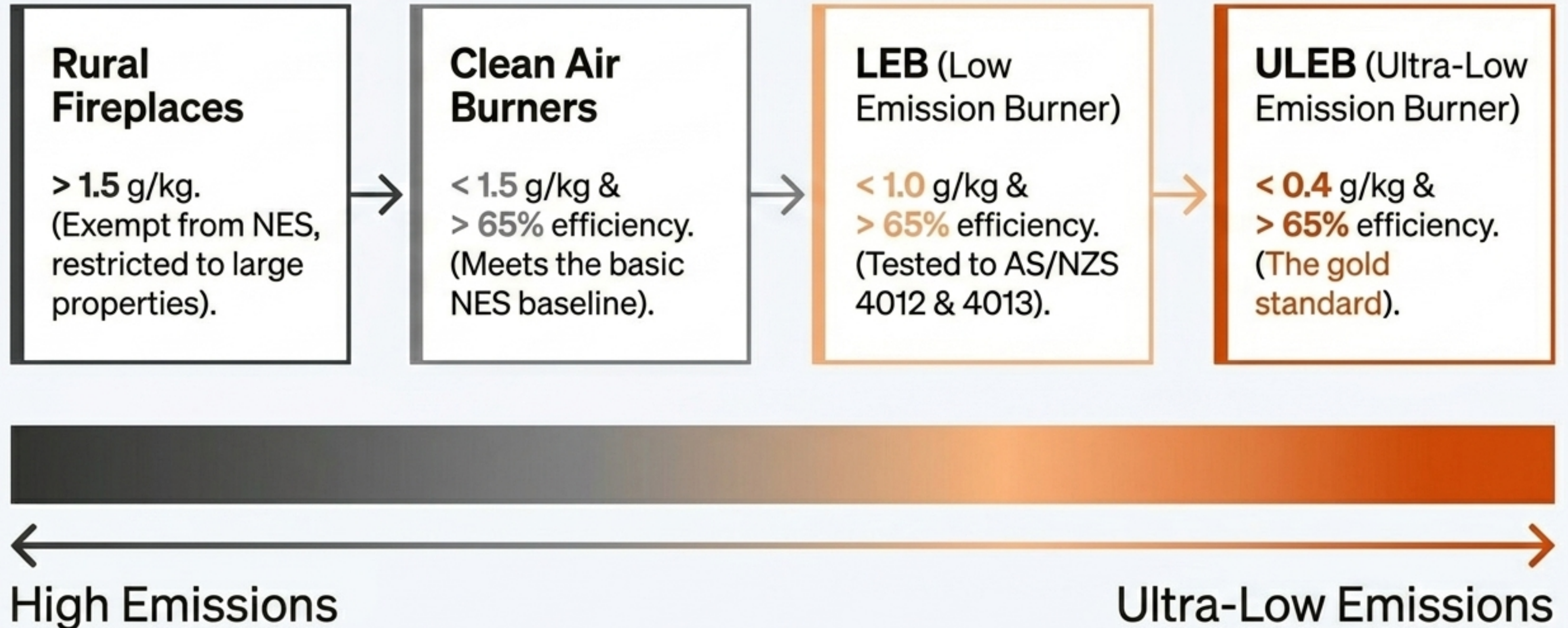
Must meet the National Environmental  
Standards for Air Quality (NES).

### The NES Baseline

**Limit:** **1.5g** of particles per kg of dry wood  
burned (g/kg).

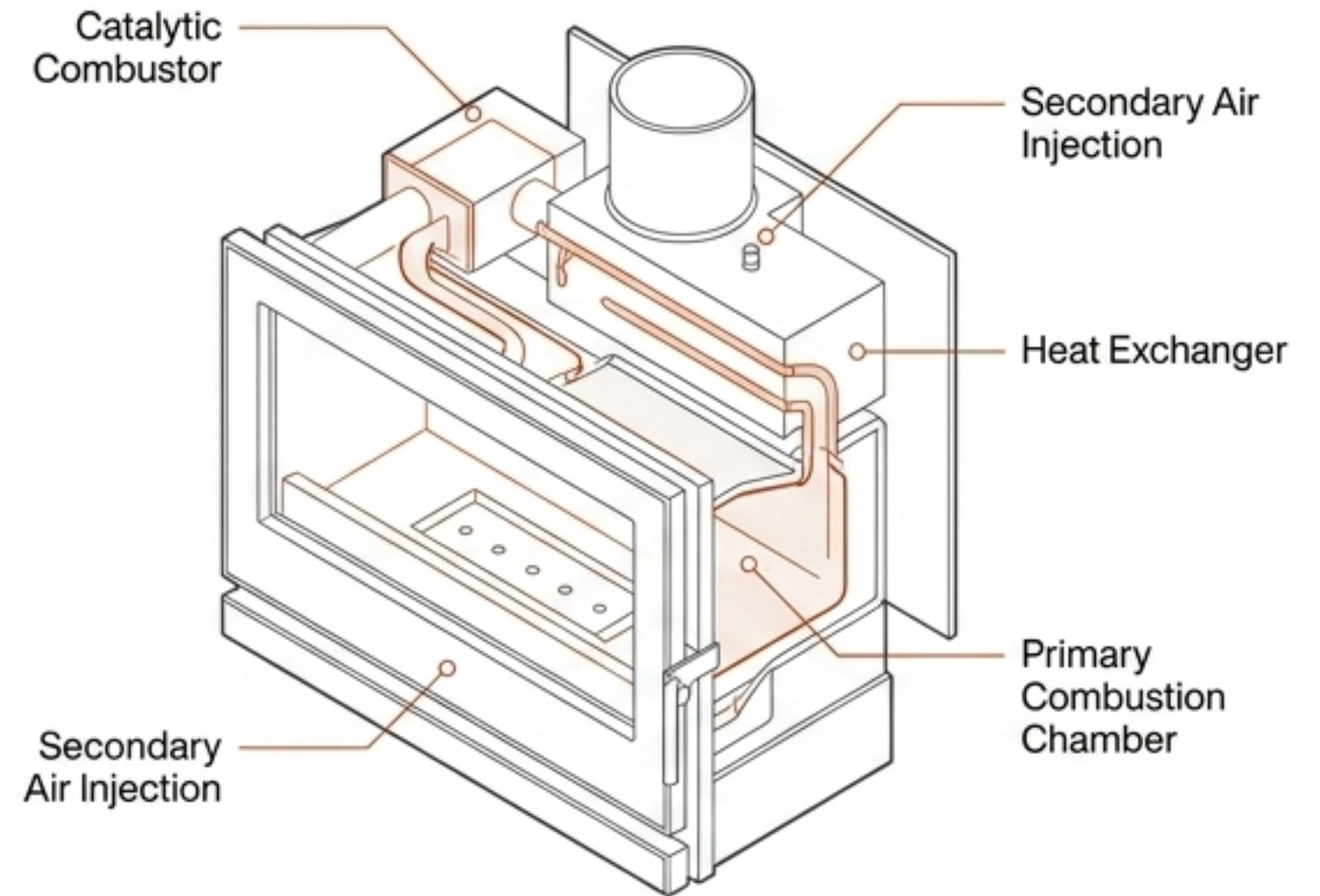
**Efficiency:** Minimum **65%** thermal efficiency.

# Fireplace & Burner Classifications



# Anatomy of a ULEB (Ultra-Low Emission Burner)

**38 milligrams  
per megajoule  
( $<0.4$  g/kg)**



## Laboratory vs. Reality

### Standard Testing (AS/NZS)

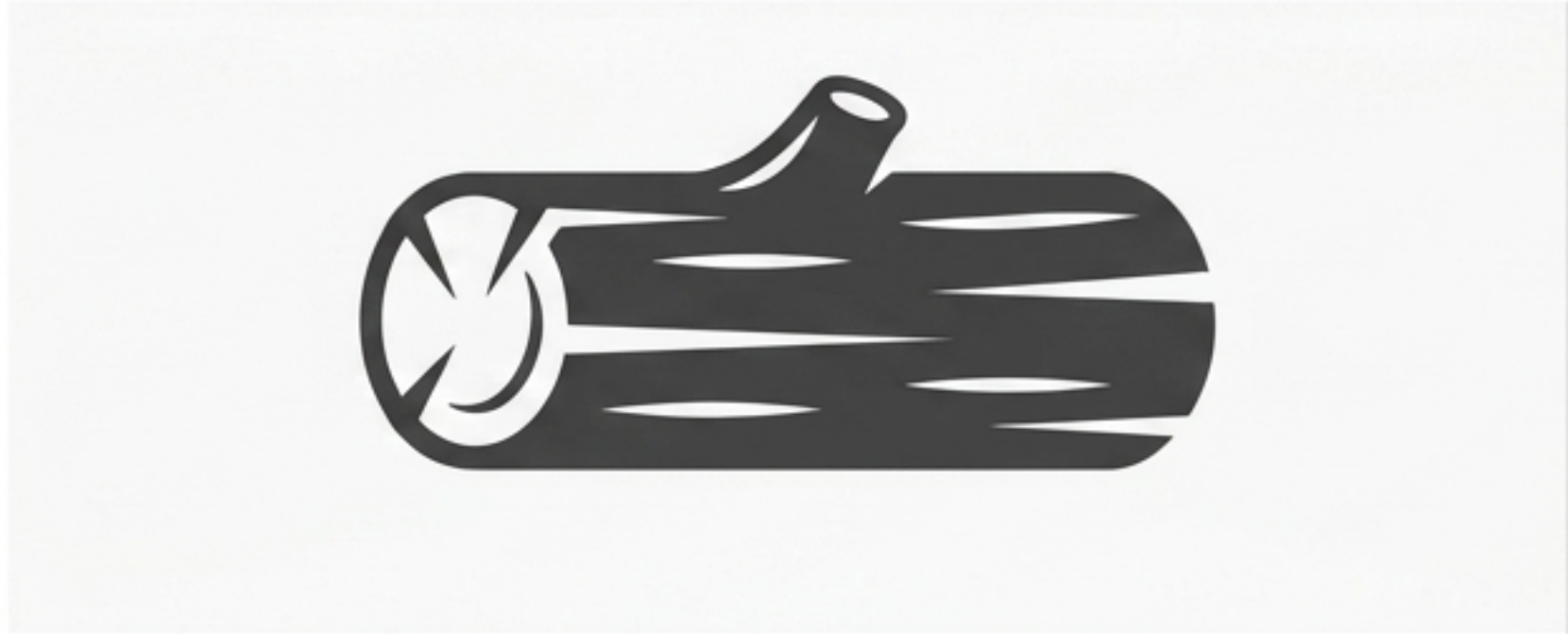
Tested under perfect, highly controlled laboratory conditions.

### ULEB Testing (CM1 - Canterbury Method 1)

Tested using strict real-life operating conditions, simulating how homeowners actually build and run fires.

**The Benefit:** Because they pass the rigorous CM1 test, ULEBs can be installed and used indefinitely, even in the strictest Clean Air Zones.

# The Automated Alternative: Pellet Burners



## Precision Combustion

Electrically controlled feed augers deliver the exact amount of fuel needed, ensuring optimal, low-emission combustion.



## ULEB Equivalent

Many pellet burners achieve emissions of **38 mg/MJ and >65% efficiency**, meeting strict ULEB standards.



## Zoning Advantage

Approved for indefinite use across strict zones, including Canterbury and Otago Zone 1.



## Operational Control

Cannot be banked down overnight (a major cause of pollution in traditional burners).

# Clean Air Zones



## Regional Zoning: Environment Canterbury (ECan)

**Strict local rules apply:**

**Older Burners: Phased out completely.**

**LEBs (<1.0 g/kg):** Facing phase-out schedules depending on the specific Clean Air Zone.

**ULEBs & Pellet Burners:** The only solid-fuel options **approved for indefinite installation and use** across all Canterbury Clean Air Zones.

# Regional Zoning: Otago Regional Council (ORC)

## **Air Zone 1 (Ultra-Strict)**

Locations: Alexandra, Arrowtown, Clyde, Cromwell.

**The Limit: 0.7 g/kg and 65% efficiency.**

Allowed Hardware: ULEBs, compliant pellet burners, heat pumps, and flued gas heaters.

## **Air Zones 2 & 3 (Standard)**

Locations: Rest of Otago (Dunedin, Oamaru, Wanaka, etc.)

**The Limit: 1.5 g/kg and 65% efficiency.**

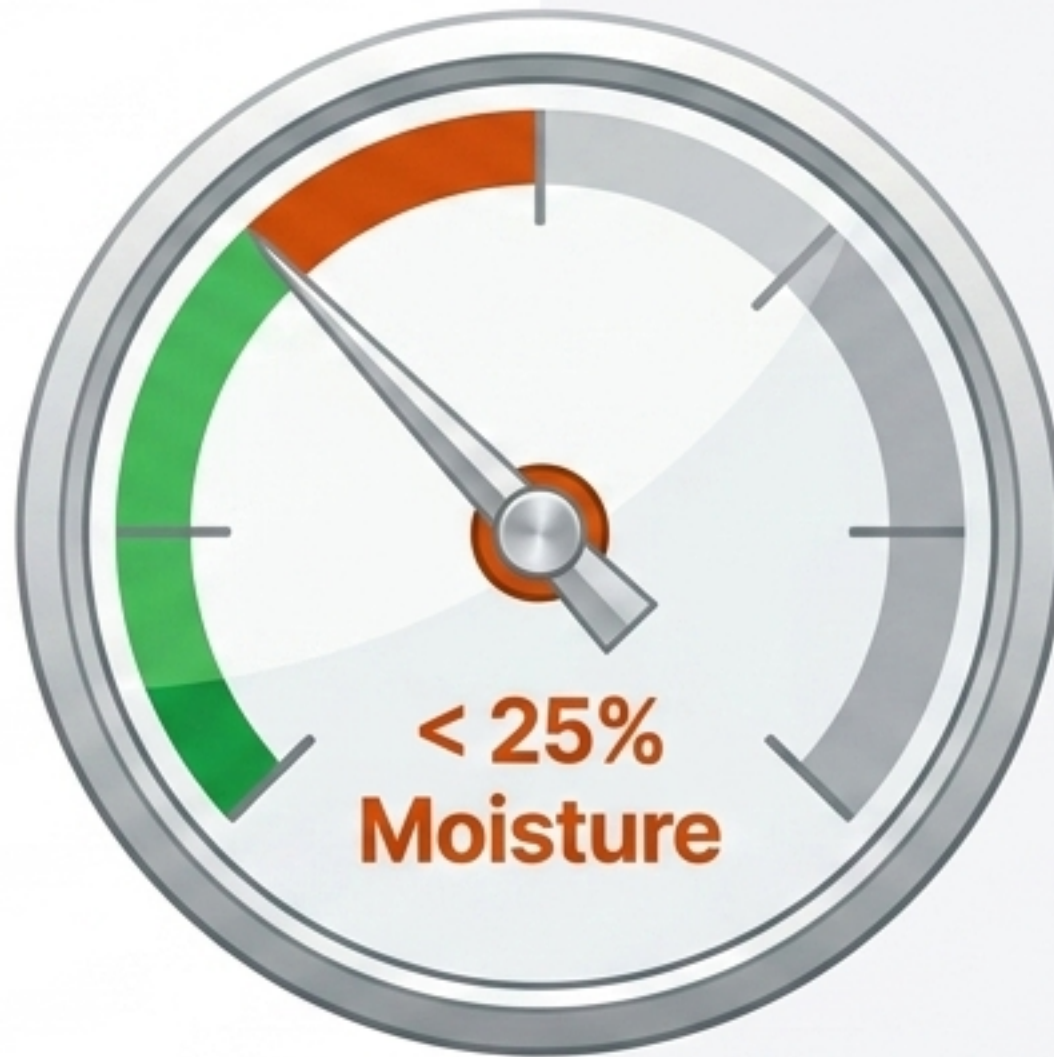
Allowed Hardware: Standard Clean Air Burners and LEBs are permitted.

# Operational Best Practices: Burn Dry, Breathe Easy

Even a ULEB pollutes if operated poorly.

## Do

- ✓ **Use a moisture meter:** Ensure wood is under 25% moisture before burning.
- ✓ **Stack wood off the ground** with plenty of airflow.
- ✓ **Burn hot and bright:** Ensure flames are visible when turning the fire down.



## Don't

- ✗ **Never dampen down the fire to smolder overnight.**
- ✗ **Never burn treated wood, decking, or building offcuts.**
- ✗ **Never burn plastic, disposable nappies, or household rubbish (releases severe toxins).**

# The Financial Support Matrix

Provider	Eligibility	Financial Support
<b>EECA (Warmer Kiwi Homes)</b>	For pre-2008 homes / low-income areas / Community Services Card.	Provides <b>80-90% off</b> insulation; <b>up to 80% (capped at \$3,000)</b> for heating appliances.
<b>Habitat for Humanity</b>	For homeowners needing essential repairs.	Provides <b>interest-free loans up to \$20,000</b> , repayable over up to 5 years.
<b>Aukaha's Better Homes</b>	For whanau experiencing housing-related illness, overcrowding, or with tamariki.	Provides <b>free</b> interventions, assessments, and heating referrals.
<b>Cosy Homes &amp; EnergyMate</b>	For local residents needing guidance.	Provides <b>free</b> in-home coaching, energy assessments, and eco-design advisor services (e.g., via Dunedin City Council).

# The Homeowner Checklist

1

**Check Your Zone:**  
Determine your exact **property size** (is it under 2 hectares?) and identify your **Regional Council Air Zone** (Canterbury CAZ, Otago Zone 1, etc.).

2

**Select Compliant Hardware:** Match your **zone** to the **emission limits** (**0.7g/kg**, **1.5g/kg**, or **ULEB**). Cross-reference models on the official MfE or ECan authorized burner lists.

3

**Access Funding & Install:**  
**Consult local eco-design advisors** and apply for advisors apply for **EECA or Habitat for Humanity subsidies** before making your purchase.