

Briefing Document: Replacing Gas Fires with Wood Burners in New Zealand

Executive Summary

The transition from gas fire appliances to wood-burning stoves is an increasingly popular home improvement choice in regions such as Queenstown Lakes, Central Otago, and Auckland. This shift is primarily driven by the desire for a traditional "quintessential fireplace experience," potential long-term cost savings, and the use of renewable energy. However, the conversion process is a highly regulated undertaking governed by the New Zealand Building Code, local council bylaws, and National Environmental Standards for Air Quality.

Key requirements for a successful transition include obtaining mandatory building consents, selecting appliances that meet strict emission and efficiency standards, and employing certified professionals for both the decommissioning of gas lines and the installation of solid fuel heaters. Failure to comply with these regulations can result in legal penalties, the denial of Code Compliance Certificates (CCC), and the voiding of home insurance policies.

Detailed Analysis of Key Themes

1. Rationale for Switching to Wood Burners

Homeowners often choose to replace gas fires with wood burners for several strategic reasons:

- Ambience and Aesthetic:** Wood burners provide a rustic, warm atmosphere that gas fires often lack.
- Energy Efficiency and Environment:** Modern wood burners are highly efficient when using seasoned wood. Burning wood from sustainable sources is considered a carbon-neutral heating option compared to fossil fuel gas.
- Cost Efficiency:** While initial costs are higher, wood burners can be cheaper to operate, particularly for homeowners with access to inexpensive or self-sourced firewood.

2. Regulatory Compliance and Legal Requirements

The installation of a solid fuel burner is classified as "restricted building work" in New Zealand.

Building Consents

A building consent is mandatory for installing, replacing, or relocating any fire appliance.

- **Insurance Risks:** Installing a burner without consent may lead to insurance claims being declined in the event of a fire.
- **Council Inspections:** If the installer is not a council-approved producer statement author, a formal inspection is required to ensure work complies with documentation.
- **Special Character Areas:** In regions like Auckland, additional resource consents may be required if the property is in a "special character area" or historic heritage place.

National Environmental Standards (NES) for Air Quality

Since September 2005, wood burners installed on urban properties (lots of 2 hectares or less) must comply with specific design standards:

- **Emission Limit:** Maximum particle emission of 1.5 g/kg of wood burnt (AS/NZS 4013:1999).
- **Thermal Efficiency:** Minimum efficiency of 65% (AS/NZS 4012:1999).
- **Exemptions:** These standards typically do not apply to multi-fuel burners, pellet fires, or coal burners, though local regional plans may impose stricter rules.

Building Code Durability (Clause B2)

- **Freestanding Appliances:** Minimum durability of 5 years.
- **Inbuilt Appliances and Flues:** Minimum durability of 15 years.
- **Second-hand Units:** These often require a waiver of Clause B2 from the council because their remaining life is difficult to verify.

3. Technical Installation Considerations

The installation process is complex and involves several critical components:

- **Gas Decommissioning:** A qualified gas fitter must safely cap off and disconnect the existing gas fire to prevent leaks.
- **Chimney and Flue:** Existing chimneys must be inspected. Many retrofits require a new chimney liner to protect against heat damage and improve efficiency. Flues must be installed and sealed according to AS/NZS 2918.
- **Ventilation:** Modern, well-insulated homes may require additional ventilation to provide sufficient airflow for the burner to operate safely.
- **Floor Protection (Hearth):** A fireproof hearth is essential. The type of existing flooring must be assessed to ensure it can withstand the heat.
- **Wetbacks:** Installing a copper pipe (wetback) to heat water requires a building consent and must be performed by a certifying or registered plumber.

4. Professional Accreditation

The New Zealand Home Heating Association (NZHHA) provides the national standard for accreditation.

- **SFAIT (Solid Fuel Appliance Installation Technician):** Required for professionals installing wood burners and flue systems.
- **SFAST (Solid Fuel Appliance Servicing Technician):** Accredited for cleaning and maintaining systems.

- **Refresher Courses:** Technicians must complete a refresher every two years to maintain their accreditation and recognition by councils and insurers.

Important Quotes with Context

"If you do not have a building consent, you may have problems with your insurance if there is a fire in your building."

- **Context:** This warning from Auckland Council emphasizes that legal compliance is not merely a bureaucratic requirement but a critical financial safeguard for the homeowner.

"Technically, there's nothing to stop a skilled DIYer from physically placing a wood burner in a room... However, New Zealand law makes it very clear that you cannot legally install indoor wood fires and sign off your work unless you're an approved, registered professional."

- **Context:** This highlights the distinction between physical ability and legal authority. While a homeowner might be capable of the labor, only a certified professional can provide the documentation required for a Code Compliance Certificate.

"With the high fire risk in Central Otago and Queenstown Lakes its important to store your firewood in a safe place that doesn't put your home at risk."

- **Context:** Provided by Optum Plumbing & Heating, this highlights a regional safety concern regarding the storage of fuel in areas prone to wildfires.

"A second-hand appliance may appear to be in good condition. However, it would be difficult to be certain that the appliance will meet the durability requirement as it may already be several years old."

- **Context:** This MBIE guidance warns against the use of used burners, noting that councils may require specific waivers to approve their installation due to Building Code durability standards.

Cost Analysis

Category	Estimated Cost (NZD)	Details
Appliance Price	\$1,500 – \$30,000+	Ranges from basic models to top-tier stoves.
Installation Labor	\$2,500 – \$5,000	Average cost for certified professionals; varies by flue complexity.

Category	Estimated Cost (NZD)	Details
Auckland Fixed Fee	\$327	Non-refundable fee for appliances installed by an approved installer.
Inspection Fee	\$195	Deposit for inspection activities if the installer is not a producer statement author.
Maintenance	Ongoing	Includes annual chimney sweeping and servicing.

Actionable Insights

- **Verify Compliance Before Purchase:** Ensure the selected wood burner is on the Ministry for the Environment's list of authorized low-emission burners, especially if the property is under 2 hectares.
- **Mandatory Professional Sequence:**
 1. Hire a **Gas Fitter** to cap the old line.
 2. Engage a **Certified SFAIT** to install the new burner.
 3. If installing a **Wetback**, ensure a **Certifying Plumber** is involved.
- **Prioritize Documentation:** Secure a signed "Producer Statement" from the installer immediately upon completion. This document is essential for the council's Code Compliance Certificate and for verifying insurance coverage.
- **Assess Structural Readiness:** Before purchasing a unit, have a professional inspect the existing chimney and floor structure (hearth) to determine if expensive modifications (like chimney liners or structural reinforcement) are required.
- **Regional Safety:** In high-fire-risk areas like Central Otago, develop a fuel storage plan that keeps dry logs away from the immediate exterior of the home to mitigate external fire threats.

Want to learn more?

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